Empowerment for Americans with Disabilities

Breaking Barriers to Careers and Full Employment



National Council on Disability October 1, 2007

National Council on Disability 1331 F Street, NW, Suite 850 Washington, DC 20004

Empowerment for Americans with Disabilities: Breaking Barriers to Careers and Full Employment

This report is also available in alternative formats and on the award-winning National Council on Disability (NCD) Web site (www.ncd.gov).

Publication date: October 1, 2007

202-272-2004 Voice 202-272-2074 TTY 202-272-2022 Fax

The views contained in this report do not necessarily represent those of the Administration, as this and all NCD documents are not subject to the A-19 Executive Branch review process.



An independent federal agency making recommendations to the President and Congress to enhance the quality of life for all Americans with disabilities and their families.

Letter of Transmittal

October 1, 2007

The President The White House Washington, DC 20500

Dear Mr. President:

On behalf of the National Council on Disability (NCD), I am pleased to submit this report, entitled *Empowerment for Americans with Disabilities: Breaking Barriers to Careers and Full Employment*. Under its congressional mandate, NCD is charged with the responsibility to gather information on the development and implementation of federal laws, programs, and initiatives that affect people with disabilities.

For Americans with disabilities, no less than for all other citizens, the opportunity to earn a living and be self-supporting is a universally held goal. Yet in perhaps no area of public policy has the expectations gap so stubbornly resisted our efforts to achieve equality. Whatever set of statistics one chooses from among the varying estimates of employment rates for Americans with disabilities, the rate and level of employment for this population remain far too low. These employment and earnings gaps are a substantial public and policy concern. A lack of employment opportunities limits the ability of many people with disabilities to fully participate in society, as employment plays a number of important roles and functions for individuals.

This report comprehensively reviews the issues integral to the employment of people with disabilities. It has two broad aims: a) to summarize the existing knowledge regarding the employment of people with disabilities in a series of short issue briefs and b) to present new information on the perspectives of employers, people with disabilities, and disability specialists on the key barriers to and facilitators of employment.

There is a direct benefit to expanding employment opportunities for people with disabilities. For employers who are projected to face labor shortages as the baby-boom generation retires, non-employed people with disabilities represent a valuable tool of human resources to help fill those needs. For people with disabilities, employment has not just economic value, but important social

1331 F Street, NW • Suite 850 • Washington, DC 20004 202-272-2004 Voice • 202-272-2074 TTY • 202-272-2022 Fax • www.ncd.gov and psychological value as well. For government, increased employment of people with disabilities helps increase tax receipts and decrease social expenditures. Finally, as recognized in the passage of the Americans with Disabilities Act, there are societal benefits from greater inclusiveness in mainstream society as the barriers facing people with disabilities are dismantled.

NCD stands ready to work with you and the Office of Domestic Policy to ensure that the recommendations within this report become a reality.

Sincerely,

John R. Vaughn Chairperson

(The same letter of transmittal was sent to the President Pro Tempore of the U.S. Senate and the Speaker of the U.S. House of Representatives.)

National Council on Disability Members and Staff

Members

John R. Vaughn, Chairperson Patricia Pound, First Vice Chairperson

> Milton Aponte, J.D. Victoria Ray Carlson Chad Colley Robert R. Davila, Ph.D. Graham Hill Marylyn Howe Young Woo Kang, Ph.D. Kathleen Martinez Lisa Mattheiss Lonnie Moore Anne M. Rader Cynthia Wainscott Linda Wetters

Staff

Michael C. Collins, Executive Director Martin Gould, Ed.D., Director of Research and Technology Mark S. Quigley, Director of Communications Julie Carroll, Senior Attorney Advisor Joan M. Durocher, Senior Attorney Advisor Geraldine Drake Hawkins, Ph.D., Senior Program Analyst Pamela O'Leary, Sign Language Interpreter Mark Seifarth, Congressional Liaison Brenda Bratton, Executive Assistant Stacey S. Brown, Staff Assistant Carla Nelson, Secretary

Acknowledgments

The National Council on Disability thanks Douglas Kruse, Ph.D., Rutgers University, and James Schmeling, J.D., University of Iowa, for conducting the research for this report.

NCD also wishes to acknowledge the contributions of Meera Adya, J.D., Ph.D., Syracuse University; Carol Harvey, Ph.D., Rutgers University; Todd Honeycutt, M.A., Rutgers University; William Myhill, J.D., Syracuse University; Cynthia Smith, M.A., J.D., Syracuse University; Michael Morris, J.D., National Disability Institute; Susan Odiseos, Just One Break, Inc.; and Peter Blanck, J.D., Ph.D., Syracuse University.

Table of Contents

| Execut | tive Sun | nmary | .7 | | |
|--------------------------|---|---|----|--|--|
| 1. | Introduction15 | | | | |
| 2. | Setting | g the Context | 19 | | |
| | А. | Challenges and Barriers | 19 | | |
| | B. | Labor Market and Workplace Trends | 21 | | |
| | C. | Public Policies | 23 | | |
| 3. | Employment Barriers, Best Practices, and Other Facilitators: Overview | | 27 | | |
| | Employment policies, practices, and types | | | | |
| | А. | Recruitment and Retention | 28 | | |
| | B. | Employee Development | 33 | | |
| | C. | Work-Life Balance and Alternative Work Arrangements | 36 | | |
| | D. | Reasonable Accommodations | 39 | | |
| | E. | Corporate Culture | 41 | | |
| | F. | Universal Design | 13 | | |
| | G. | Self-Employment | 14 | | |
| | Other of | er dimensions affecting employment | | | |
| | H. | Transportation | 15 | | |
| | I. | Health care | 17 | | |
| | J. | Education | 19 | | |
| | К. | Housing and Livable Communities | 51 | | |
| | L. | Long-Term Services and Supports | 53 | | |
| 4. | Policy Recommendations | | 57 | | |
| Appen | dices | | | | |
| Appen | dix A. E | Business Advisory Council Membership | 57 | | |
| Appen | dix B. E | Expert Advisory Panel Membership | 59 | | |
| Appendix C. Issue Briefs | | | | | |
| | 1. | Recruitment and retention | 73 | | |
| | 2. | Employee development | 39 | | |
| | 3. | Work-life balance and alternative work arrangements10 |)5 | | |
| | 4. | Reasonable accommodations | 19 | | |

| 5. | Corporate culture | 135 | | |
|--|--|-----|--|--|
| 6. | Universal design | 147 | | |
| 7. | Self-employment | | | |
| 8. | Transportation | | | |
| 9. | Health care | | | |
| 10. | Education | | | |
| 11. | Housing and livable communities | | | |
| 12. | Long-term services and supports | | | |
| Appendix D. | Public Forum Summaries | | | |
| Jacks | onville, Florida | | | |
| Milwa | aukee, Wisconsin | | | |
| Appendix E. | Focus group summaries | | | |
| Emple | oyers | | | |
| Vetera | ans with Disabilities | | | |
| Self-Employed People with Disabilities | | | | |
| | Community Work Incentives Coordinators (CWICs) and DOL-SSA ility Program Navigators (DPNs) | | | |
| Appendix F. 1 | Mission of the National Council on Disability | | | |
| Bibliography | | | | |
| Endnotes | | | | |
| | | | | |

Executive Summary

Given a serious labor shortage in the mid 1990s, A&F Wood Products could not have expanded its business as well as it has without the abilities and hardworking attitudes of its workers with disabilities. . . . "We don't go out and brag about it," says one of the [co-owner] brothers, "but when you talk to others and tell them if you want to find a great working force, here is what you have to try, because it has been wonderful for us, the reaction is 'Where do I go and how do I start out?'" (Lengnick-Hall 2007, 65–66)

The above quote describes the experience of a wide range of employers in the United States. There are many positive stories about the ability of people with disabilities to work as hard and well as those without disabilities, given the right environment. In fact, people with disabilities may be even more productive in some environments:

"Our environment is creative and innovative. People with disabilities by default are very creative and knowledgeable about a variety of issues, because they have to be in their everyday lives." (Britta Stromeyer, Pillsbury Winthrop Shaw Pittman LLP, www.earnworks.com)

Just as A&F Wood Products and other companies experienced labor shortages in the mid-1990s, labor shortages are projected in the coming decades as the baby-boom generation reaches retirement age. These shortages increase the importance of finding and using all available talent:

"We find the best in everyone and put it to work. There is a job for every person, and there is a person for every job. . . . Considering labor and skills shortages we are facing in [the] United States, we believe that our linkages to organizations supporting people with disabilities is a business-critical strategy." (Branka Minic, Director, Workforce Development, Manpower, www.earnworks.com)

The aging of the workforce and population not only contributes to labor shortages, but also will create a higher rate of disability, increasing both the labor pool of people with disabilities and the number of consumers looking for disability-friendly products. A number of companies have found their employees with disabilities to be valuable resources for product development and testing. Susan Mazrui of Cingular Wireless notes that:

"It's a common-sense business decision. If you want to recruit talented people you have to have an environment that allows us to use their talent....As the workforce ages, more and more people with disabilities will be employed, and the better we can accommodate the access needs of our employees, the more productive they will be in their jobs and the easier it will be to retain a knowledgeable and experienced workforce. Employees with disabilities can also provide greater insights into the needs of older customers and those with disabilities. [Employing people with disabilities] impacts every [company] because it increases their resources." (www.earnworks.com)

The need for workplace accommodations complicates the hiring process for some people with disabilities (although a 2003 Rutgers national survey found that among private companies with employees with disabilities, only 24 percent had to make any accommodations). Many employers find that the accommodations have a high payoff. For example, Sjaloom Stringer of the Marriott Corporation says that:

"Yes we have to do things differently and adapt our work environment for our visually impaired associates, but that is nothing compared to the impact we have been able to make on someone's life . . . we are giving back to our communities, while at the same time reaping the benefits of a work team that is dedicated, loyal, dependable, and most of all, successful. A win-win situation has been realized for all involved in this initiative." (www.earnworks.com)

Accommodations can be seen as part of a universal process of responding to the needs of all employees. As stated by Millie DesBiens of IBM:

"What we do is accommodate any employee, whether they are disabled or not. Every employee gets what they need. When it comes to people with disabilities, it may be assistive technology or services. Even if you're not disabled—if there is something you need in order to make your job more productive, you would get it." (www.earnworks.com)

The Problem

Despite the positive stories above—along with many others—the employment rate of working-age people with disabilities remains only half that of people without disabilities (38 percent compared with 78 percent in 2005). The reason is not that people with disabilities do not want to work: Two-thirds of nonemployed people with disabilities say they would prefer to be working. What explains the low rate of employment, and how can it be increased?

The key challenges and barriers to greater employment of people with disabilities reflect both the supply side and demand side of the labor market. On the supply side, some people with disabilities have extra costs associated with working: education or training gaps, the need for flexible work arrangements, and disincentives from disability income and health care. On the demand side, the barriers include employer discrimination and reluctance to hire, corporate cultures that are not disability-friendly, and the need for accommodations.

Along with these challenges and barriers, current labor market and workplace trends indicate both good news and bad news. The bad news is that people with disabilities are currently underrepresented in the occupations projected to grow the fastest between 2004 and 2014—they are currently more likely to be in slower-growing service and blue-collar occupations. The good news is a) growth in computers and new information technologies that help compensate for many types of disabilities and increase the possibilities for productive employment; b) growth in telecommuting and flexible work arrangements, which are appropriate for many people with disabilities; and c) increased attention to issues of diversity in U.S. companies, in which disability is often included as a dimension of diversity.

What This Report Does

This National Council on Disability report is a broad assessment of the employment status of people with disabilities. To offer a complete and rounded perspective on the barriers to and facilitators for employment of people with disabilities, the report accomplishes the following:

- Combines a review of existing evidence with presentation of new evidence on the experiences and views of people with disabilities, employers, and disability specialists.
- Has received advice and guidance from a Business Advisory Committee, chaired by J.T. (Ted) Childs Jr. (Principal, Ted Childs LLC) and made up of representatives from 25 U.S. companies.
- Has received advice and guidance from an Expert Advisory Panel, comprising experts in the field of disability and employment.

One goal is to assemble and present the best practices in the public and private sectors and the promising public policies and initiatives that facilitate an increase in employment opportunities for people with disabilities.

The challenges of, barriers to, and facilitators of employment for people with disabilities are examined in two ways. First, twelve issue briefs summarize evidence on a range of topics that affect the employment of people with disabilities, highlighting best practices of employers and promising public policies and initiatives. The topics are the following:

Employment policies, practices, and types

- A. Recruitment and retention
- B. Employee development
- C. Work-life balance and alternative work arrangements
- D. Reasonable accommodations
- E. Corporate culture
- F. Universal design
- G. Self-employment

Other dimensions affecting employment

- H. Transportation
- I. Health care
- J. Education
- K. Housing and livable communities
- L. Long-term services and supports

In addition, public forums and focus groups were conducted with employers, people with disabilities, and disability specialists. The forums were held in Jacksonville, Florida, and Milwaukee, Wisconsin, and the focus groups were composed of the following:

- 1. Employers
- 2. Veterans with disabilities
- 3. Self-employed people with disabilities
- 4. Disability specialists working with the Social Security Administration and Department of Labor

The key points from the issue briefs, public forums, and focus groups are summarized in chapter 3 of the report, along with the best practices for the public and private sectors, and promising public policies and initiatives.

What Can Employers and Policymakers Do?

The report describes 31 best practices for employers, and 50 promising public policies and initiatives. Following is a sampling of the best practices for employers (with selected examples of companies implementing them):

- Recruitment and retention: Develop recruiting methods and advertise job positions that target people with disabilities, in cooperation with government and nonprofit agencies (e.g., Hewlett Packard, IBM, Merrill Lynch).
- Employee development: Work with government and nonprofit agencies to provide on-thejob training for people with disabilities (e.g., Spokane Home Builders Association).
- Employee development: Give employees with disabilities access to mentoring, as part of either a general or a targeted program (e.g., Cessna Aircraft Company, Barclays).
- Corporate culture: Provide encouragement and support for networks and affinity groups for employees with disabilities (e.g., American Airlines, General Motors, IBM, JPMorgan Chase, Microsoft, Nike).
- Work-life balance and alternative work arrangements: Provide flextime and telecommuting options to employees.
- Reasonable accommodations: Establish centralized accommodations funds to provide funding from a common pool in the company, so that accommodation costs are not a burden on but provide benefit to local budgets (e.g., IBM, Microsoft).
- Reasonable accommodations: Establish a structured process for accommodations with a review board or assessment team, access to a full range of information on accommodation options, and training for managers and human resource professionals (e.g., American Airlines, IBM, JPMorgan Chase).
- Corporate culture: Train all employees and new hires in disability awareness and sensitivity (e.g., Giant Eagle, Microsoft).
- Education: Establish company programs to provide internships and job training to students with disabilities (e.g., Pitney Bowes, IBM, Hyatt).

For increased awareness and adoption of the best practices in employing and accommodating people with disabilities, these practices should be integrated into the training curriculum in business, law, and public policy schools.

Following is a sampling of the promising public policies and initiatives:

- Recruitment, retention, and employee development: A number of vocational rehabilitation and disability agencies work with companies to identify, select, and provide supports for qualified individuals with disabilities for employment.
- Self-employment: For people on Supplemental Security Income, the Plan for Achieving Self Support (PASS) allows individuals to leverage their benefits for use in pursuing their career goals including becoming self-employed, which can provide a needed cushion during the start-up phase of the business.
- Transportation: Vouchers to people with disabilities to pay for employment-related transportation expenses, including travel not just to work but also to job training, job interviews, medical appointments for employment-related health services, and so on.
- Transportation: Support for state-based programs under the Assistive Technology Act of 2004 that provide loans or grants to individuals with disabilities to finance vehicle modifications for use in commuting to work.
- Education: Expanded use of and support for transition research and data.
- Housing and livable communities: There are 157 active 2-1-1 systems in 32 states that provide consumers with centralized information and referral to basic human needs resources; physical and mental health resources; employment support; support for older people and people with disabilities; and support for children, among other services.
- Housing and livable communities: United We Ride is a new program that provides information, technical assistance, and grants to states to develop and implement comprehensive action plans for coordinating human service transportation to make it more cost-effective, accountable, and responsive to consumers who face transportation difficulties.

Where Do We Go from Here?

As part of a road map to improving employment opportunities for people with disabilities, we offer the following recommendations that supplement the best practices and existing public policies and initiatives:

- 1. <u>Conduct public forums on the status of the New Freedom Initiative</u>: There should be meetings in each of the 50 states with diverse stakeholders to report on the progress of the New Freedom Initiative.
- 2. <u>Design and fund a coordinated set of demonstration projects by multiple federal</u> <u>agencies</u>: These demonstration/pilot projects would examine the effectiveness of a wide range of policies addressing many of the employment facilitators and barriers. The projects should examine how a combination of policies, rather than each policy in isolation, affects employment opportunities for people with disabilities.
- 3. <u>Establish and maintain a National Business Advisory Council</u>: Modeled on the council advising this study, an ongoing business advisory council with representatives from large and small employers would share information with employers in general and provide advice to the National Council on Disability, the President, Congress, and other federal agencies.
- 4. <u>Conduct a public information campaign</u>: A massive public information campaign could help match employers and people with disabilities, in part by publicizing employer best practices, successful public/private partnerships, accessible technologies, and universal design methods.
- 5. <u>Clarify ADA coverage</u>: Congress should reaffirm the intent of the Americans with Disabilities Act (ADA) and clarify who is covered and eligible for workplace accommodations, including the definition of disability without regard to accommodations or other mitigating measures, to reduce employer uncertainty and fear of the unknown.
- 6. <u>Improve vocational rehabilitation and workforce investment services and out-</u> <u>comes</u>: This should include a) additional study of vocational rehabilitation outcomes by the U.S. Government Accountability Office (GAO); b) research on accessibility of one-stop centers and the need for increased enforcement; and c) congressional hearings on the Workforce Investment Act and the need for improved collaboration within and outside the one-stop career centers.
- 7. <u>Modify the Social Security disability income system to promote work and ad-</u> <u>vance self-sufficiency</u>: There should be evaluation of the effectiveness of current work incentives and a multistate demonstration that allows beneficiaries to work without loss of cash benefits or health coverage for five years.
- 8. <u>Improve access and availability of long-term services and supports</u>: There should be a) several incremental reforms to decrease the system's fragmentation and oth-

erwise improve delivery of long-term services and supports and service, including establishment of a National Resource Center on Consumer Self-Direction that identifies and disseminates best practice information; and b) an AmeriWell program, which is a prefunded, mandatory, long-term services and support model that provides all Americans of any age with coverage from birth.

9. <u>Increase opportunities for self-employment</u>: The Small Business Administration should affirm the inclusion of small businesses owned by people with disabilities as minority contractors entitled to federal procurement set-asides, and establish a National Resource Center on Self-Employment and People with Disabilities to provide training and technical assistance and improve cross-agency collaboration. Congress should establish tax incentives for corporations to purchase products and services from small businesses owned by people with disabilities.

There is a direct benefit to expanding employment opportunities for people with disabilities. For employers who are projected to face labor shortages as the baby-boom generation retires, non-employed people with disabilities represent a valuable pool of human resources to help fill those needs. For people with disabilities, employment has not just economic value, but important social and psychological value as well. For government, increased employment of people with disabilities helps increase tax receipts and decrease social expenditures. Finally, as recognized in the passage of the Americans with Disabilities Act, there are societal benefits from greater inclusiveness in mainstream society as the barriers facing people with disabilities are dismantled. These high payoffs create a strong case for pursuing the best practices and promising policies highlighted in this report.

1. Introduction

Almost 22 million Americans of working age have a disability, representing one-eighth of all working-age Americans (Cornell RRTC 2006). They are only half as likely as Americans without disabilities to be employed (38 percent compared with 78 percent), with an especially low employment rate among those who have more severe disabilities (17 percent among those who have difficulty with self-care and those who have difficulty going outside the home alone). Among those who are employed, there is a further gap in earnings: Median annual earnings for full-time, year-round workers is \$30,000 for workers with disabilities, compared with \$36,000 for workers without disabilities (Cornell RRTC 2006).

These employment and earnings gaps are a substantial public and policy concern. A lack of employment opportunities limits the ability of many people with disabilities to fully participate in society, as employment plays a number of important roles and functions for individuals:

- <u>Economic</u>: Employment provides income that is key to individual and family economic well-being, and builds skills for future well-being. The low employment and earnings levels of people with disabilities help account for their lower average household incomes and higher poverty rates (Kruse 1998; Cornell RRTC 2006).
- <u>Social</u>: Employment often provides greater social interaction and connections that reduce isolation and build social capital. This benefit is especially valuable for people with disabilities, who generally are less likely to participate in many social activities (N.O.D./ Harris 2000).
- <u>Psychological</u>: Employment provides a valued social role in our society and helps create a sense of personal efficacy and social integration that contributes to life satisfaction. People who regain employment following onset of a disability report higher life satisfaction and better adjustment than do people who are not employed (Yasuda et al. 2002; Schur 2002b).

Ensuring employment opportunities for people with disabilities is important not just for those individuals but also for employers, government, and society:

• Employers are projected to face labor shortages as the baby-boom generation retires, and nonemployed people with disabilities represent a valuable pool of human resources to help fill those needs.

- Corporations are increasingly recognizing the benefits of workplace diversity. Providing greater opportunities to people with disabilities enhances diversity in ways that improve employee performance and expand the customer base.
- Government receives the above benefits as an employer, and also benefits generally from increased employment of people with disabilities as tax receipts increase and social expenditures decline.
- As recognized in the passage of the Americans with Disabilities Act (ADA), there are societal benefits from greater inclusion in mainstream society as the barriers facing people with disabilities are dismantled.

This National Council on Disability (NCD) report comprehensively reviews the issues surrounding employment of people with disabilities. It has two broad aims: a) summarize existing knowledge regarding the employment of people with disabilities in a series of short issue briefs that can be distributed widely and b) present new information on the perspectives of employers, people with disabilities, and disability specialists on the key barriers to and facilitators of employment.

The first aim is accomplished through a series of 12 issue briefs that summarize available evidence on a range of topics affecting the employment of people with disabilities. The topics are as follows:

Employment policies, practices, and types

- A. Recruitment and retention
- B. Employee development
- C. Work-life balance and alternative work arrangements
- D. Reasonable accommodations
- E. Corporate culture
- F. Universal design
- G. Self-employment

Other dimensions affecting employment

- H. Transportation
- I. Health care
- J. Education
- K. Housing and livable communities
- L. Long-term services and supports

The first seven briefs—on employment policies, practices, and types—attempt to answer the following questions: What are the implications of different employer policies and work arrangements for people with disabilities? How can companies use these arrangements to meet staffing needs and produce the work that is needed to meet company goals? How can employers take advantage of resources they may not have previously considered? The final five briefs—on other dimensions affecting employment—attempt to answer several broad questions: What about this topic promotes employment for people with disabilities? What about this topic inhibits employment? What is the ideal situation for this dimension and employment?

The second aim of this report—to present new information on the perspectives of employers and people with disabilities—is addressed through public forums and focus groups. The public forums in Jacksonville, Florida, and Milwaukee, Wisconsin, sought to gather a broad range of views from interested stakeholders. The questions driving these forums were the following:

- 1. What key factors/elements bring public and private sector resources together to advance employment and economic opportunity for people with disabilities?
- 2. What are the innovations? What is working?
- 3. What are the major challenges (policy, systems, infrastructure, other)?
- 4. What are policy barriers to advance employment and economic opportunity for people with disabilities?
- 5. What are policy facilitators to advance employment and economic opportunity for people with disabilities?

Four focus groups also were conducted, each involving a different population with valuable perspectives on issues facing people with disabilities:

- 1. Employers, both large and small
- 2. Veterans with disabilities
- 3. Self-employed people with disabilities
- 4. Disability specialists with the Social Security Administration (SSA) and Department of Labor who work with people with disabilities (Disability Program Navigators and Benefit Counselors)

The key results from all of these sources are summarized in chapter 3, which lays out the main findings for each of the twelve topics along with the best practices in the public and private sectors, and promising public policies and initiatives. Before that, chapter 2 provides an overall context by reviewing and briefly discussing the following:

- a) The broad challenges and barriers for increased employment of people with disabilities
- b) Labor market and workplace trends affecting the employment of people with disabilities
- c) The major public policies that affect the employment of people with disabilities

This report has received valuable advice and guidance from two groups formed specifically for this project: a Business Advisory Council (BAC) and an Expert Advisory Panel. The BAC, whose membership is listed in appendix A, consisted of 27 executives from a range of businesses in diverse industries. The BAC was chaired by J.T. (Ted) Childs Jr. (Principal, Ted Childs LLC), and was formed with the assistance of Susan Odiseos at Just One Break, Inc., a not-for-profit organization that brings together employers and qualified applicants with disabilities (www.justonebreak.com). The BAC met a number of times over the course of the project to provide ideas and feedback for the research results. The Expert Advisory Panel, whose membership is listed in appendix B, consisted of eight experts in the field of disability and employment. It was chaired by Monroe Berkowitz, Professor Emeritus at Rutgers University, and met early in the course of the project to help define the appropriate set of topics for the issue briefs.

2. Setting the Context

A. Challenges and Barriers

What accounts for the low employment levels of people with disabilities? The major reasons can be divided into those affecting labor supply (reflecting the ability and willingness of individuals to be employed) and labor demand (reflecting the willingness of employers to hire). On the labor supply side, the key factors are the following:

- <u>Extra costs of work</u>: Getting ready for work, transportation to work, and medical care costs may be higher for people with disabilities. For example, having access to a modified vehicle is strongly associated with employment of people with spinal cord injuries, but the average cost of vehicle modification is \$6,497 (Berkowitz et al. 1998). Some people with disabilities also face extra expenses in medical equipment or attendant care when employed. For more detail and discussion on transportation, see the "Transportation" issue brief in this report.
- Education and training: People with disabilities have lower average levels of education and training. They are twice as likely as those without disabilities not to have a high school degree (25 percent compared with 12 percent) and less than half as likely to have a college degree (13 percent compared with 30 percent) (Cornell RRTC 2006). Lower education levels limit not just current employment opportunities but also future opportunities, given that 15 of the 20 fastest-growing occupations require an Associate's or higher degree (Hecker 2005, 75). For more detail and discussion, see the "Education" issue brief in this report.
- <u>Extra need for flexibility</u>: Some disabilities require extra time for self-care, therapy, and medical appointments, and transportation problems can introduce an added level of uncertainty in daily schedules. For these reasons, many people with disabilities are not able to accept traditional full-time jobs, and those who want to be employed may be drawn to parttime and flexible work arrangements (Schur 2003). For more detail and discussion, see the "Work-Life Balance and Alternative Work Arrangements" issue brief in this report.
- <u>Disability income and health care</u>: Many people with disabilities receive public disability income in the form of Social Security Disability Insurance (SSDI) or Supplemental Security Income (SSI). Such income is typically accompanied by health care through Medicare or Medicaid. People with disabilities are often reluctant to become employed for fear of jeopar-dizing these benefits, and research clearly shows that these benefits affect both labor market

exits and return to work (Mashaw et al. 1996; Bound and Burkhauser 1999). For more detail and discussion, see the "Health Care" issue brief in this report.

Apart from these factors affecting the labor supply of people with disabilities, there are several key issues on the demand side of the labor market:

- Employer discrimination and reluctance to hire: National surveys of private employers find that about 20 percent say the greatest barrier to people with disabilities finding employment is discrimination, prejudice, or employer reluctance to hire them, and that attitudes and stereotypes are a barrier to employment of people with disabilities in their own firms (Dixon, Kruse, and van Horn 2003; Bruyère 2000). (These figures are probably understated due to the "social desirability" bias in surveys that leads respondents to avoid acknowledging prejudicial attitudes.) In addition, a recent review of more than a dozen empirical studies of wage differentials concluded that "a substantial part of the wage differential" can be attributed to disability-related discrimination (Baldwin and Johnson 2006). For more detail and discussion, see the "Recruitment and Retention" issue brief in this report.
- Corporate culture: Apart from direct discrimination, many aspects of corporate culture both organizational practices and the attitudes of managers, supervisors, and coworkerscan limit employment opportunities for people with disabilities (Schur, Kruse, and Blanck 2005). Personnel managers and supervisors may be personally uncomfortable around people with disabilities, and this discomfort may be manifested in a reluctance to hire, retain, or promote. Employers may believe that a worker with a disability will not be well accepted by coworkers and therefore will be less productive in teamwork situations. Employers may hold strong stereotypes about the type of jobs or industries that are appropriate for people with certain types of disabilities and may have strong biases about the attitudes, aspirations, and potential for further human capital development of workers with disabilities. For instance, among 13 laboratory experiments, 10 found that evaluators were overly pessimistic about the future performance and promotion potential of employees with disabilities (Colella, DeNisi, and Varma 1998). In addition, among employers who made changes to enhance the employment of people with disabilities, in a national survey 32 percent indicated it was difficult or very difficult to change supervisor and coworker attitudes (Bruyère 2000). For more detail and discussion, see the "Corporate Culture" and "Employee Development" issue briefs in this report.
- <u>Need for accommodations</u>: Title I of the ADA enhances access to employment for people with disabilities by requiring employers to make reasonable accommodations. The require-

ment for reasonable accommodations has created concerns that employers may not hire people with disabilities because of the cost of accommodations. Surveys have found, however, that only 24 percent of employers who have employees with disabilities needed to provide any accommodations for these employees, and the majority of accommodations cost less than \$500 (Dixon, Kruse, and van Horn 2003). The median benefit is estimated as \$1,000, compared with a median cost of \$25 (Schartz et al. 2006). For more detail and discussion, see the "Reasonable Accommodations" and "Universal Design" issue briefs in this report.

Finally, on both sides of the labor market, one often finds the following:

• <u>Lack of information:</u> Some people with disabilities do not know what jobs they might be able to do, and how to obtain the necessary training. They may not be aware of their ADA rights or available government programs to facilitate employment. Likewise, employers often do not know where to go to hire people with disabilities, and what resources are available to assist them (e.g., employee training from government and nonprofit agencies, and information on how to provide accommodations). Employer ignorance may be aggravated by recruitment specialists ("headhunters") who discriminate by failing to find and represent people with disabilities.

This report takes a close look at many of these challenges and barriers, summarizing existing evidence and describing best practices and promising policies to improve employment opportunities for people with disabilities.

B. Labor Market and Workplace Trends

There is both good news and bad news in current labor market trends for people with disabilities. First the bad news:

• Occupational projections: The most recent labor market projections by the Bureau of Labor Statistics show that workers with disabilities are underrepresented in the fastest-growing occupations and overrepresented in the occupations with the fastest rate of decline. The fastest-growing occupations are predominantly white-collar, professional jobs that require college degrees and technical expertise, such as network systems analysts and computer programmers, and the declining occupations are predominantly blue-collar production jobs such as textile machine operators (Hecker 2005). Whereas 7.2 percent of all workers have disabilities, the disability rate is 6.5 percent in the 10 fastest-growing occupations and 8.7

percent in the 10 occupations with the fastest rate of decline (Kruse and Schur 2006). The overall number of jobs in the U.S. economy is predicted to increase by 13.0 percent from 2004 to 2014, but for people with disabilities the increase is predicted to be only 12.2 percent if their occupational distribution stays the same. There would be an additional 86,000 jobs for people with disabilities if their occupational distribution matched the overall rate of job growth. Furthermore, the fast-growing occupations with high disability prevalence are low-paying jobs that do not require college degrees. The lower projections for workers with disabilities partly reflect the continued outsourcing of low-skill jobs.

There is, however, also good news in labor market trends for the employment of people with disabilities:

• <u>Growing importance of computers and new information technologies</u>: These technologies can have special benefits for workers with disabilities, helping compensate for physical or sensory impairments (e.g., using screen-readers and voice-recognition systems) and substantially increasing the productivity of many workers with disabilities. A study by Krueger and Kruse (1995) found that a) people with preexisting computer skills at the time of a spinal cord injury had a faster return to work and b) computer use especially enhanced earnings among people with spinal cord injuries; in fact, they earned the same as other computer users, whereas a substantial pay gap was associated with spinal cord injury among people who did not use computers at work.

Though computers may have special benefits for people with disabilities, there are disturbing gaps in computer training and Internet access. People with disabilities are less likely than those without disabilities to receive computer training or use computers at work or elsewhere, probably in large part because of resource constraints (Krueger and Kruse 1995; Kruse and Schur 2002). In addition, people with disabilities are only one-fourth as likely as those without disabilities to connect to the Internet (Kaye 2000).

• <u>Increased use of telecommuting and flexible work arrangements</u>: New information technologies have made home-based work more productive, which can have special benefits for people with disabilities—particularly those with transportation problems or medical concerns that require them to be close to home. In addition, the past 15 years have seen growth in other types of flexible work arrangements that can help accommodate the needs of people with disabilities, such as job-sharing and temporary agency employment. As described in this report's issue brief on "Work-Life Balance and Alternative Work Arrangements," workers with disabilities are more likely than those without disabilities to be doing home-based work for pay, and to be in several types of part-time and flexible job arrangements. Though such jobs often have disadvantages and it is clear that workers with disabilities should have full access to standard full-time jobs, the growth of several types of flexible and contingent jobs is promising for enhancing the employment of many people with disabilities who benefit from these arrangements.

• <u>Growing attention to workplace diversity</u>: Most large corporations today have diversity programs, and a growing number are including disability as one of the criteria for a diverse workforce. This topic is reviewed in more depth in the issue brief on "Corporate Culture."

Overall, the good and bad news presents a mixed picture for the employment of people with disabilities. The occupational trends are worrisome, but with appropriate employer and government policies people with disabilities should be able to move into the fastest-growing occupations. This report is designed to contribute to this process, assessing the evidence and highlighting the policies that will maximize employment opportunities for people with disabilities in the 21st century.

C. Public Policies

A number of public policies affect the employment of people with disabilities. This section provides an overview of the major policies, with additional policies reviewed in the issue briefs. The most important policy is the Americans with Disabilities Act, which was signed into law on July 26, 1990, and fully implemented two years later. The ADA extended the same civil rights protections to individuals with disabilities as those already provided on the basis of race, sex, national origin, and religion. The ADA prohibits discrimination in *all* employment practices: applications, hiring, firing, advancement, compensation, training, conditions, and privileges. However, the ADA goes beyond previous civil rights enforcement by requiring most employers to make "reasonable accommodation" for disability in the workplace. Private employers (with 15 or more employees), state and local governments, employment agencies, and labor unions are all subject to the ADA. Any "qualified individual with a disability" is covered. The person must have "a physical or mental impairment that substantially limits one or more major life activities, have a record of such an impairment, or be regarded as having such an impairment." A person is qualified if he or she can perform the essential functions of the position in question, with or without reasonable accommodation.

In 2001, the White House introduced the New Freedom Initiative. This plan, which is intended to further help people with disabilities participate fully in society, has several provisions target-

ing employment. These provisions include proposed increased funding for low-interest loan programs to help individuals purchase assistive technologies; low-interest loans for purchasing equipment to support telecommuting; a proposal to make an employer's provision of some telecommuting equipment and services taxfree to workers; and a prohibition on Occupational Safety and Health Administration regulation of home offices. The initiative also contains a commitment to assist employers with ADA compliance and to promote awareness and use of the Disabled Access Credit for small businesses' direct accommodation expenses.

Finally, beyond these broad legislative and policy measures, two disability benefit programs directly serve many people with disabilities and affect their employment situation. These are the Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) programs. SSDI entitlement is earned through past employment. Termination of SSDI eligibility discontinues not only cash benefits but also Medicare benefits following an extended period of eligibility (SSA 2003). The SSI program is a welfare program, open to anyone meeting the SSA disability test and having income and assets below set thresholds.

SSDI and SSI provide different work incentives. SSDI historically has provided strong disincentives to reenter the labor market. Sustained earnings above the "Substantial Gainful Activity" (SGA) level, which was raised to \$860 per month in 2006, result in termination of income benefits. SSI is more generous toward earnings, reducing benefits by 50 percent of earnings above a threshold. However, recipients who are full-time workers could easily render themselves ineligible for the program, again with a corresponding loss of valuable health insurance coverage (in this case, through Medicaid).

To support the efforts of SSDI and SSI recipients trying to reenter the labor market, a variety of return to work (RTW) experiments have been or are being put in place to encourage SSDI beneficiaries to return to work. In September 2003, Jo Anne Barnhart, commissioner of Social Security, stressed the importance of providing RTW services (e.g., job search coaching) to both applicants and beneficiaries through two new demonstrations. The Early Intervention demonstration provides a cash stipend, health insurance, and free RTW services for a year to SSDI applicants who are screened into the program as likely SSDI beneficiaries and who are likely to return to work. The so-called \$1 for \$2 demonstration will enable SSDI beneficiaries to work beyond the earnings limit (the SGA level), to retain \$1 for every \$2 they earn beyond SGA instead of losing their entire benefits as they currently do.

However, recent RTW demonstrations and programs such as Project Network (Kornfeld and Rupp 2000), and more recently the Ticket to Work, are not encouraging. They have been characterized by very low participation rates in RTW services, and terminations due to RTW remain rare among workers with disabilities. Beyond these RTW experimental programs, various RTW incentives and services are available to workers with disabilities. For instance, as part of work incentives, beneficiaries can test their ability to work without affecting their eligibility for benefits during a nine-month trial work period, and they have an extended period of eligibility beyond the trial work period during which benefits are withheld but not terminated (Muller 1992; Newcomb et al. 2003). Past research has shown that the effectiveness of the available range of RTW incentives and services is limited. Hennessey and Muller (1994) found that only 21 percent of workers with disabilities were aware of work incentives. In addition, work incentives may not be of the magnitude that is required to compensate for the implicit work disincentives of the programs. As for RTW services, Hennessey and Muller found that the large majority of beneficiaries who return to work seem not to use such services.

In addition, in 1999 Congress passed the Ticket to Work and Work Incentives Improvement Act (TWWIIA). The intent of the act was to provide recipients of SSDI and SSI with more support from the programs during a lengthier period of reentry to employment; to make it easier to return to the benefit programs if work efforts ultimately fall short of self-sufficiency; and to extend health insurance for a lengthy period after termination of cash benefits. Specifically, this was done through adjustments to the SGA level, changes in the Trial Work Period amount, expedited reinstatement of benefits, changes in Continuing Disability Reviews while work attempts are being made, instituting the Ticket to Work (which provides vouchers for supportive services including rehabilitation and vocational education), and options that can extend Medicare or Medicaid coverage long after the cessation of SSDI or SSI cash benefit payments (respectively) as a result of increased earned income.

3. Employment Barriers, Best Practices, and Other Facilitators: Overview

What specific barriers are faced by people with disabilities—both inside and outside the workplace—and how can these be overcome? This chapter summarizes the key insights from the issue briefs, public forums, and focus groups. The full issue briefs are in appendix C, and more complete summaries of the public forums and focus groups are in appendices D and E.

This overview is organized into twelve topics, corresponding to the twelve topics of the issue briefs:

Employment policies, practices, and types

- A. Recruitment and retention
- B. Employee development
- C. Work-life balance and alternative work arrangements
- D. Reasonable accommodations
- E. Corporate culture
- F. Universal design
- G. Self-employment

Other dimensions affecting employment

- H. Transportation
- I. Health care
- J. Education
- K. Housing and livable communities
- L. Long-term services and supports

For each topic, this overview provides the following:

- a) Key points from issue brief
- b) Key insights from public forums and focus groups
- c) Best practices in the public and private sectors
- d) Promising public policies and initiatives

A. Recruitment and Retention

Key points from issue brief:

- A substantial amount of research indicates that many employers are reluctant to hire people with disabilities, often reflecting discrimination or ignorance about their value as employees.
- Many companies make changes to ensure the accessibility of the hiring process, and only a minority of companies that have made changes report difficulty in doing so.
- A number of companies engage in targeted recruitment and training to increase hiring and retention of qualified people with disabilities.

Some insights from public forums and focus groups:

- A positive experience from the Jacksonville public forum:
 - The disability initiative manager with the Internal Revenue Service (IRS) shared that the IRS has a toll-free phone center in the Jacksonville area and for years has actively recruited individuals who are blind to work the phones. These employees usually stay with the center long-term (some into retirement) and have a very good work ethic. This active recruiting for the toll-free centers is viewed as very successful within the IRS.
- Examples of good public-private partnerships:
 - Florida Community College and Vocational Rehabilitation have a successful program to teach job skills and provide job placement services to students in the public education system.
 - In the employer focus group, EchoStar stated it has developed a program with Vocational Rehabilitation to give a jumpstart to individuals with disabilities who might not otherwise get an interview by offering the assistance of a job coach and additional supports to help applicants prepare for the interview and rigorous testing process.
 - In the Milwaukee forum, the Disability Program Navigator system was praised for helping bridge the gap between the Mental Health Association and the business community, enabling the agency to provide mental health education and supports.
 - In the Milwaukee forum, Vocational Rehabilitation stated that it aims to work more closely with the Milwaukee Public Schools to develop a public-private partnership, which will include community-based organizations and employers, to help transition

students into permanent work situations. Employers seem very interested in the proposed program, which will identify the needed skill sets for successful transition into the workforce.

- Also in the Milwaukee forum, an administrator of the Milwaukee Public School system's School-to-Work program said that they developed a relationship and built trust with employers. Employers realized there was a place where they could go to express their fears and concerns, and that the program was responsive to their needs. Upon developing this level of trust, the employers were more open to providing employment opportunities for students with disabilities.
- In the employer focus group, the Aerotek Commercial Staffing representative said that the provision of job coaching by state organizations has really helped new employees with disabilities to be more successful in their positions.
- Concern about funding for Vocational Rehabilitation:
 - A participant in the employer focus group expressed concern about insufficient funding for vocational rehabilitation: "The problem occurring in the last 10 years is that on an ongoing basis, that organization [Division of Vocational Rehabilitation] has been just ripped in terms of government funding. . . . I would see that organization in and of itself can do an excellent job of getting people an opportunity and access from starting at the high schools forward. But over the last 15 years . . . they have been squeezed to the points within their budgets that it's virtually impossible for them to implement their mission."
- Lack of match between employers and job seekers with disabilities:
 - Participants in the Jacksonville forum described the need for a job bank, with profiles of potential job seekers with disabilities that employers can tap into and search by skill level matched against predefined criteria.
 - In the Jacksonville forum, the Disability Program Navigator shared that the new Business Leadership Network is partnering with the Job Opportunities Consortium (for job developers) to use a recruitment tool that was donated by a company, Vurv.
 - In Florida, Vocational Rehabilitation is in the testing stages of a Web site created for employers, which provides a portal where employers can view profiles of potential job candidates.

- Need for more education of employers and job seekers:
 - In the Jacksonville forum, the business community stakeholders agreed that hiring one job applicant with a disability did make employers more open to hiring other qualified applicants with a disability; however, it did not replace the need for more education regarding the capabilities of job seekers with disabilities.
 - In the Milwaukee area, Goodwill works with about 1,000 individuals with disabilities each year and places many of them in jobs. From their perspective, employers need to receive more education on the abilities of individuals with disabilities and the value of including them as part of the workforce.
 - In the employer focus group, it was recommended that a comprehensive information campaign be targeted to employers on the benefits of hiring individuals with disabilities, including information on tax incentives and other available supports. To augment such a campaign, a 1-800 number could be provided for employers to access one-on-one assistance from a trained tax benefit specialist, provided by the regional ADA & IT Technical Assistance Centers (also known as Disability and Business Technical Assistance Centers).
 - In the Jacksonville forum, employers said that discussions about hiring/retaining individuals with disabilities in the workforce and providing reasonable accommodation should be integrated into the training curriculum in business schools.
- Mixed views about government tax incentives: Some participants use them and several want them expanded, but many said they are too complex.
 - In the Jacksonville forum, a Blue Cross/Blue Shield representative shared that the organization has always been open to hiring a qualified individual with a disability, and said that the company takes advantage of the available tax credits and incentives, which have eased the reluctance of bringing an employee with a disability onboard.
 - Employers in the focus group, across the spectrum, reported that government tax benefits are underutilized because of their complicated nature and the extensive paperwork and level of knowledge and time that it takes to access these benefits. The employer with North American Handico responded that though he does utilize tax credits for hiring and retaining employees with disabilities, "It's a nightmare. I hate it."
 - Employers in the Jacksonville forum suggested creating a simplified tax benefit that would support accommodations and work incentives and encourage matched savings

plans to promote asset development among employees with disabilities, but Milwaukee forum participants thought that this was a bad idea.

Best practices in the public and private sectors:

- Ensure that recruiting and interviewing locations, job applications, tests, and evaluations are accessible.
- Train employees in nondiscriminatory recruiting, clearly defining essential job functions and framing questions related to job tasks and medical information that do not violate the ADA rights of employees with disabilities.
- Train employees in disability awareness and sensitivity.

Example:

The Giant Eagle grocery chain sponsors disability awareness training for its human resource managers every two years, held offsite at a YMCA camp with participation from several public and private disability agencies. During the training, "Half of the day is spent learning about the ADA and interviewing skills, while the remaining half of the day the human resource managers spent actually experiencing disabilities. Stations are manned by job coaches who simulate for the human resource managers what it is like for someone with a disability. For example, a wheelchair exercise allows the human resource managers to perform everyday activities, such as using a drinking fountain, maneuvering through doors and up and down ramps, and reaching for something on a shelf." (Lengnick-Hall 2007, 70)

• Develop recruiting methods and advertise job positions that target people with disabilities, in cooperation with government and nonprofit agencies.

Examples:

"[At Hewlett Packard], front line supervisors, sometimes challenged with worker shortages, have been trained to expand their applicant pool, often going to a university they know and interacting with faculty to identify persons with disabilities who also have the necessary technical skills needed for a particular position. [In addition,] HP makes a point of working with employment agencies that are noted for their training of people with disabilities." (Lengnick-Hall 2007, 39) IBM's Entry Point program is a collaboration with the American Association for the Advancement of Science (AAAS) and NASA, whose mission is to place students with disabilities in business and government and prepare them for corporate and community leadership. Since 1997, IBM has had 191 student placements in summer internships and hired 44 students into regular employment.

See further examples in the "Recruitment and Retention" issue brief.

- To increase retention, ensure that employees with disabilities have full access to the range of employee development activities (reviewed in "Employee Development" issue brief).
- Work with government and disability agencies to increase retention of employees with disabilities.

Example:

The University of Alabama-Birmingham (UAB) and the Alabama Department of Rehabilitation Services have a partnership to increase employment of people with disabilities. "The newest component of the partnership is geared toward retention. The RAVE program, Retaining a Valued Employee, was launched nearly two years ago as a pilot project proposed by the VR [Vocational Rehabilitation] agency to be a jointly funded endeavor housed at the University. VR approached the University with a proposal to create a shared position, with half the salary from each of the partners and reporting to dual supervisors within each organization. From VR's perspective, the RAVE counselor would be able to provide invaluable inside connections for VR to access the extensive array of employment and training opportunities of this large and respected employer for people with disabilities. In addition, by assisting the employer with its internal accommodation efforts, the RAVE program could help prevent employees from leaving the job and returning to public disability benefits."

For Susan McWilliams, vice president for human resources at UAB, it was an easy sell for UAB. "There are greater risks and more costs to hire a new unknown than to invest in a fully proven and productive employee who needs a reasonable accommodation," explains McWilliams. "As partners, they have been able to respond rapidly and access technical assistance and resources through the RAVE program to retain most of the referred individuals in employment." (McMahon et al. 2004)

Promising public policies and initiatives:

• A number of vocational rehabilitation and disability agencies work with companies to identify and select qualified individuals with disabilities for employment (see above examples).

B. Employee Development

Key points from issue brief:

- People with disabilities face barriers not only in becoming employed, but also in advancing within companies and in their careers after they are employed.
- Employee development is important both for employees (ensuring that they obtain opportunities to increase their skills and income) and for companies (ensuring that employee talents are fully developed and used).
- The key programs and methods for employee development include training, mentoring, networking, career planning, performance appraisals, and participation in teams and decision making.
- A 1999 survey of employers found that 59 percent rated mentoring as "effective" or "very effective" for reducing barriers to employment, or for advancement for people with disabilities in their organizations.
- Employees with disabilities are generally less likely to be involved in these activities than are employees without disabilities, but a number of companies have initiated programs aimed at development of employees with disabilities.

Some insights from public forums and focus groups:

- Two employers in the employer focus group discussed their positive experiences in offering mentoring opportunities to employees with disabilities:
 - In Medco, a small medical publishing business, a scenario was shared in which mentoring evolved through a formal plan, promoted and supported by the employer, between a new employee with a disability and another employee who also has a disability. As a result of this mentoring, the new employee is developing work skills and confidence and is advancing in his career.
 - EchoStar has a standard program for all of its new hires, including new hires with disabilities. All new employees engage in "career pathing." This involves being grouped

in teams of 10 to 15 with a coach; this team then serves as a support mechanism for all team members as they progress together to different levels and achieve higher pay grades within the company.

Best practices in the public and private sectors:

• Work with government and nonprofit agencies to provide on-the-job training for people with disabilities.

Example:

"The Spokane Home Builders Association . . . recruits up to 20 new apprentices [individuals with disabilities] annually. . . . The commitment made to become part of this apprenticeship program involves four years of on-thejob training (approximating 8,000 hours) and 144 hours per year of related supplemental education at Spokane Community College's Apprenticeship and Journeyman Training Center. [The director] has recruited apprenticeship students with such disabilities as low vision, vision loss, neurological conditions, learning disabilities, neuropsychological disabilities, and most recently a deaf student." (McMahon et al. 2004)

• Give employees with disabilities access to mentoring, as part of either a general or a targeted program.

Examples:

"Mentoring individuals with disabilities has helped our organization broaden its understanding of disability. You learn that disabilities are not limiting." (Michael Dunbar, vice president of public relations for the Greater Columbus, Georgia, Chamber of Commerce)

"Mentoring [people with disabilities] sends a message to our other employees that the company really does care about people. . . . We have had really good luck with the people we have mentored, and in today's tight labor market, they really fill a void." (Rod Holter, director of manufacturing for Cessna Aircraft Company)

A disability mentoring system was recently initiated by employees with disabilities at the global financial firm Barclays, based in England (Suff 2006). The scheme focuses on building a pool of trained mentors who are available to employees with disabilities "if they want to get ahead in their career, develop their skills or if they 'just need someone to talk to." The CEO gave high priority to the project, and serves as a mentor himself. Employees can apply to have a mentor, and are matched using a detailed database of potential mentors. The scheme, which is still in its infancy, has both quantitative and qualitative evaluation built in. The executive in charge notes that "The [mentoring] scheme has had a very strong response so far and has the clear endorsement of all the Barclays businesses, including our fund management arm and investment bank. The scheme contributes to our diversity agenda and, ultimately, to the success of the group." (Suff 2006, 20)

• Provide encouragement and support for networks and affinity groups for employees with disabilities.

Example:

There are three disability affinity groups at Microsoft: for people who are deaf or hard-of-hearing, have attention deficit disorders, or are visually impaired. As described in Lengnick-Hall (2007, 74-75): "These groups provide support and networking opportunities for people with disabilities such as: mentoring, college recruiting, working in the community, career development, and cultural awareness. Each group has an executive sponsor. Additionally, each employee group has connections with community groups that are advocates for people with disabilities. Besides providing social and career support for employees with disabilities, employee groups also help with accessibility and testing of Microsoft products."

• Provide career planning services, particularly after onset of a disability.

Examples:

The Marriott Corporation, through the Marriott Foundation for People with Disabilities, has a Bridges and Bridges Plus program to prepare youths with disabilities for the workforce. In the Bridges Plus program each youth has a) a "Career Development Plan which guides all activities for two years and employs 90-day reviews," b) a "Career Preparation Curriculum . . . [which] contains essential competencies for career development, self-advocacy, and successful employment," and c) an "Employer representative . . . [who] provides mentoring, support services, and family training" (Lengnick-Hall 2007, 80–81).

Alaska Airlines: "For a worker with disability onset, there is an aggressive effort made to maintain the individual on a job in their own work unit or in the company. . . . Some individuals are sent to Alaska Airline's Career Assessment unit for vocational assessment; this can be outsourced if necessary. Job analyses have been done for each physically demanding job by an external rehabilitation counseling company. Following career assessment,

retraining may be an option in areas such as customer service specialist, flight attendant, or reservations. External consultation is quite common, particularly in relation to utilization of an ergonomics specialist. There has also been an effort to provide career mobility for personnel such as reservation agents with blindness. External contractors specializing in blindness have been utilized in order to brainstorm/improve accommodations that would enable upward mobility for individuals with significant sight impairments." (McMahon et al. 2004)

- Ensure that employees with disabilities receive performance appraisals.
- Give employees with disabilities opportunities to participate in decision making and team building.

Promising public policies and initiatives:

• A number of vocational rehabilitation and disability agencies work with companies to provide on-the-job training, mentoring, and support for employees with disabilities.

C. Work-Life Balance and Alternative Work Arrangements

- In work-life programs, employers seek to accommodate the personal and family needs of all employees, often combining the needs to help create a "culture of flexibility."
- Some of the programs have particular value for people with specific disabilities and limitations, particularly a) part-time work/job sharing, b) flexible schedules, c) temporary employment, and d) telecommuting and other home-based work.
- Each of these, except flexible schedules, is found to be more common among employees with disabilities.
- A culture of flexibility that is responsive to the needs of all employees—where accommodations are seen as standard rather than the exception—may be especially valuable for people with disabilities and may enhance their employment opportunities.

Some insights from public forums and focus groups:

- More support for telecommuting:
 - Employers in the Jacksonville forum suggested more support for telecommuting as a reasonable accommodation, perhaps including a tax advantage to initially help employers cover the cost of setting someone up in the home with the necessary computer equipment (though some participants cautioned that telecommuting, while seen as a benefit, can also be interpreted as furthering the social isolation of individuals with disabilities).
- Value of flextime:
 - Most of the employer focus group participants agreed that flextime for employees with disabilities was provided as an accommodation. Aerotek Commercial Staffing said that this was more a result of work schedules being affected by the individual's dependence on the public transit system and/or Access-A-Ride, than as a direct accommodation of an employee's disability.
 - In the Veterans with disabilities focus group, a participant who is self-employed with two companies shared that he tries to offer his employees flexible work schedules. His workforce comprises 25 percent Veterans and he knows, from personal experience, that some days are better than others for a Veteran who is sick or who has a disability. He provides between a four- and five-hour leeway to come in to perform necessary job functions.

Best practices in the public and private sectors:

• Make part-time jobs available to people with disabilities, particularly after disability onset, to ease the transition back to work.

Example:

"A man who broke his back in a work accident . . . said that he eventually was able to return to a full-time managerial job because his employer gave him a part-time schedule when he first came back to work: 'Part time work was a good way to make the transition. If I worked for another type of employer they wouldn't have taken me back. There's a good chance that I'd [still] be out on disability."" (Schur 2003)

• Provide flextime options to employees.

• Hire and accommodate temporary employees with disabilities.

Example:

"Valerie Meyer graduated from college with an associate degree in business management and marketing. But Valerie [who uses a wheelchair] found it difficult to find employment. [After several temporary assignments,] Valerie was hired as a permanent customer service representative. Her supervisor said 'Valerie was one of 60 people that Manpower provided us for the particular project that we had. We knew that when the project ended we were going to hire one person. After observing Valerie's work, we knew that she was the right person for the job.""

• Provide telecommuting options where possible.

Example:

"Janet Pearce, a producer at NBC News, was diagnosed with multiple sclerosis nearly a decade ago. But she has rarely missed a day of work even as her illness has progressed, making her unable to walk. A vital reason she has remained gainfully employed is telecommuting. About two years ago, NBC gave Ms. Pearce the option of working at home when she needed to, and today she splits her time, spending three days a week at the office and two at home. After 36 years at NBC, Ms. Pearce said she could not imagine leaving her job, even when she found herself overwhelmed by her disease, her medical appointments, the physical therapy, and the adjustment to a wheelchair."

Promising public policies and initiatives:

- Free advice on designing and implementing these policies as reasonable accommodations is available at www.jan.wvu.edu.
- Legal guidance on implementing these policies is provided by the Equal Employment Opportunity Commission at www.eeoc.gov/types/ada.html, www.eeoc.gov/policy/docs/ guidance-contingent.html, www.eeoc.gov/policy/docs/qanda-contingent.html, and www. eeoc.gov/facts/telework.html, among others.

D. Reasonable Accommodations

Key points from issue brief:

- Providing workplace accommodations is a dynamic task, involving an "interactive process" between employer and employee about individual capabilities and qualifications, business needs and resources, and consideration of work modification strategies.
- A wide variety of accommodations can be considered depending on the nature of the disability, job, and work environment—ranging from low-technology accommodations such as ramps, personal assistants, and scheduling changes, to high-technology accommodations such as new computer hardware and virtual reality training.
- Many existing accommodation practices do not reflect available state-of-the-art solutions, because of such barriers as lack of knowledge and expertise, cost concerns, negative attitudes, and corporate culture (i.e., the attitudes, policies, and practices of a business and its employees).
- There are a number of sources of information on accommodations for employers, particularly the Job Accommodation Network funded by the U.S. Department of Labor.
- Though the ADA does not allow a cost-benefit analysis of accommodations in determining whether to make an accommodation, recent studies have found that benefits outweigh the costs of granting accommodations. Recent information shows that about half of all accommodations had no monetary cost associated with them, and those that did have a cost had a median cost of \$600. More important, this study found a median direct benefit of \$1,000 for all accommodations. Other benefits may accrue as well, including indirect benefits of increased company productivity reported by 57 percent of those employers in the study.

Some insights from public forums and focus groups:

- Growing use of accommodations:
 - In the Jacksonville forum, an Anheuser Busch representative said that accommodations and other concerns about hiring people with disabilities may have been an issue in the past—over 20 years ago—but today, companies, especially the larger companies, are more open to address these issues. Twenty years ago the company rarely made accommodations; however, now it is a customary practice.

- Most accommodations are inexpensive:
 - In the Jacksonville forum, most companies agreed that accommodations are relatively inexpensive, except for the need to hire sign language interpreters.
- Need for more information and education, possibly more tax incentives:
 - In the Jacksonville forum, participants stressed the importance of making employers aware of available tax credits and incentives for hiring an individual with a disability and providing accommodations.
 - Jacksonville participants also suggested building upon these supports by providing businesses with a combination of different tax benefits, incentives, and credits that help offset the costs of providing accommodations and become a natural part of the hiring process.

Best practices in the public and private sectors:

• Centralized accommodations funds provide funding from a common pool in the company, so that the accommodation costs are not a burden on local budgets.

Examples:

IBM and Microsoft, among others, have centralized accommodations budgets.

• Centralized office that serves as information clearinghouse and technical assistance center for all accommodation requests.

Example:

"In addition to a centralized accommodation budget, Microsoft also has an ADA Accommodations committee. This committee meets monthly and is given the responsibility of coordinating accommodations throughout the company, discussing the potential impact of new technologies, and evaluating current accommodation programs. Moreover Microsoft has an Assistive Technologies Team that makes approximately twenty evaluations a month, and an Ergonomics Team that makes approximately 180 one-on-one evaluations a month, spending six to eight hours with each employee evaluated." (Lengnick-Hall 2007)

• Managerial training on how to deal with accommodation requests, including how to manage coworker reactions.

Example:

Marriott teaches its managers to be accommodating to all employees. "Thus the issue of perceived fairness of various accommodations seems to be lessened when managers are trained to be accommodating across the board—no employee can predict when a temporary illness or a need to care for a family member will arise and mean they need flexibility or accommodation from their employer as well." (Lengnick-Hall 2007, 84)

Promising public policies and initiatives:

- The Federal Government supports the Job Accommodation Network, which provides free advice to employers on workplace accommodations.
- The Burton Blatt Institute has proposed an innovative resource for funding and support through the Workplace Accommodations Account, which would provide an employer with initial funding needed to accommodate employees through loans, which would be paid back after the employer documents the benefits derived from the accommodations. Such initiatives may be useful particularly to small employers who are hesitant about initial accommodation costs.

E. Corporate Culture

- Corporate culture—the explicit and implicit attitudes, norms, policies, and practices in an organization—can greatly affect employment opportunities for people with disabilities. A company's culture helps determine not only who gets hired, but also employee treatment, performance, attitudes, turnover, and other outcomes.
- Among the Fortune 100 companies, 39 have diversity policies that explicitly mention disability, and 11 have supplier diversity policies that mention disability, although there appears to be great variation in the extent of the commitment to reaching out to people with disabilities.
- Theory and some limited evidence support the idea that people with disabilities fare better in flexible organizations that value diversity, cooperation, and the personalized consideration

of employee needs, as opposed to organizations with bureaucratic cultures using impersonal application of rules and procedures.

Best practices in the public and private sectors:

• Top management commitment to creating an environment inclusive of people with disabilities.

Examples:

All of the companies described in the case studies in Lengnick-Hall (2007) and McMahon et al. (2004).

• Disability training for managers.

Example:

"Initially, disability etiquette training [at SunTrust] was developed and provided to recruiters and staffing managers in order to prevent many misunderstandings that could occur when the management employees are not aware of the laws and situations associated with hiring people with disabilities. One large phone campaign required approximately 600 temporary employees, and several people with disabilities were hired, due to the proactive stance of the hiring manager for the project. When that project proved successful, other managers in the bank wanted to know her "secret," and she was identified as an internal champion for the hiring of people with disabilities. This bottom-up approach to promoting the hiring and retention of people with disabilities has proven effective in reducing resistance to change throughout the company." (Lengnick-Hall 2007, 56)

• Disability training for coworkers.

Example:

"Prior to the arrival of a new employee with a disability—or shortly after arrival—Microsoft provides opportunities for future coworkers to have their questions about disabilities addressed in an open and safe environment. For those coworkers who have not worked with people with disabilities, allowing them to satisfy their curiosities goes a long way toward creating a receptive environment." (Lengnick-Hall 2007, 75) • Encouragement and support for disability networks/affinity groups.

Example:

"The Disabled Employees and Friends Network (DEN) [has] a 'mission to add value and enrich Nike and the community in which it operates for more inclusion and full utilization of employees with disabilities.'... DEN is truly unique in as much as this vibrant group involvement is solely based on the interest of employees and the awareness activities, such as the campuswide wheelchair race for individuals without disabilities, and is on the cutting edge in terms of disability awareness programs. It also provides a supportive employee base for larger outreach and innovation activities in the local community on the part of corporate management." (McMahon et al. 2004)

Also see the example under "Employee Development," above.

Promising public policies and initiatives:

• The Office of Disability Employment Policy (ODEP), U.S. Department of Labor, has funded a cooperative agreement with Syracuse, Rutgers, and Cornell universities to develop and validate a methodology for case studies of disability and corporate culture. This study will provide benchmarking data along with a methodology that all companies can use to analyze how their culture affects the employment of people with disabilities.

F. Universal Design

- Universal design refers to "the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design."
- Half of surveyed U.S. managers foresee universal design implementation for a) improving worker productivity/satisfaction, b) promoting flexibility in employment, and c) reducing legal risks and workers' compensation claims.
- Universal design was codified in federal law in the 2004 Assistive Technology Act and is part of federal policy on education, research, and training.
- There are a number of innovative applications of universal design-based policies and practices for enhancing the employment outcomes of people with disabilities.

Best practices in the public and private sectors:

- Use products and services built with universal design principles.
- Put every form of workplace documentation into digital electronic text that can be converted to alternative formats.
- Provide workplace training in a variety of media, and in synchronous and asynchronous geographically distributed formats, which offers trainees varying opportunities to demonstrate knowledge/skill acquisition.

Promising policies and initiatives:

• Federal standards and guidelines provide a floor of accessibility in a wide variety of environments.

G. Self-Employment

Key points from issue brief:

- Close to one-eighth of employed people with disabilities are self-employed, compared with only one-tenth of employed people without disabilities.
- Self-employment is an option for many people with disabilities who want to work in either a part-time or a full-time capacity but are unable or unwilling to do so in traditional employment settings for a multitude of reasons.
- Individuals with disabilities who want to become self-employed face not only the obstacles confronting all entrepreneurs, but also additional issues and obstacles such as attitudinal barriers, the possible loss of government-provided cash benefits and health care, and a lack of assistance and support from self-employment and small-business entities.
- A number of programs exist to help people with disabilities who want to become self-employed.

Promising public policies and initiatives:

• For people on Supplemental Security Income, the Plan for Achieving Self Support (PASS) allows individuals to leverage their benefits for use in pursuing their career goals, including

becoming self-employed, which can provide a needed cushion during the start-up phase of the business.

- A number of general services and programs are available to individuals looking to become self-employed, including the Small Business Administration (SBA), the Service Corps of Retired Executives, One-Stop Career Centers, and training programs located at colleges and universities.
- Vocational rehabilitation agencies have been directed to recognize self-employment as a legitimate employment outcome for their clients, and several have put together handbooks to assist clients interested in self-employment.
- ODEP has formed pilot projects in three states to "investigate, develop, and validate systems models likely to increase self-employment opportunities for people with disabilities."

H. Transportation

- Lack of accessible and affordable transportation options makes employment difficult or completely unattainable for many people with disabilities. Important factors are one's ability to drive, one's geographic location, the location and work days/hours of available employment options, and the availability of accessible transit options.
- Legislative remedies, such as the ADA, which address issues of discrimination and accessibility in public transit, deal with only some of these barriers.
- Elimination of these barriers will enhance the labor pool available to employers and increase employment opportunities for people with disabilities.
- There are promising government initiatives to provide more flexible and affordable options to meet the work commuting needs of people with disabilities; also, company practices such as telecommuting or flexible work hours assist people with disabilities in maintaining productive employment.
- Educational efforts and technical assistance may be targeted to employers and local stakeholders to promote awareness and use of the many federal programs available addressing transportation barriers.

Some insights from public forums and focus groups:

- Importance of transportation for people with disabilities:
 - In the employer focus group, Aerotek Commercial Staffing said that public transportation has "made a big difference with people with disabilities, especially the call and ride. It's gotten better and it's getting there helping us with people (employees). It's important."
 - Jacksonville forum participants stressed that transportation is one of the most significant barriers to employment for individuals with disabilities. There is a need at the community level for accessible and flexible transportation services that can transport an individual from the place of residence to the place of employment.
- Increasing the availability of accessible transportation:
 - In the employer focus group, North American Handico's representative stated that most of his employees take Access-A-Ride. He suggested making this type of call-and-ride transportation for workers with disabilities a free service. One of his workers, who has a disability that necessitates the use of special transit, is currently spending 25 percent of her paycheck on transportation. In addition, it was suggested that better coordination of transportation routes and schedules by public transit authorities could maximize the number of workers with disabilities using this system between targeted neighborhoods and business districts.
 - Veterans' outreach offices often have Veterans volunteer to drive other Veterans. In the Veterans with disabilities focus group, one person who uses this service said that it provides only transport to services such as medical appointments, a designated number of shopping trips each month, and a designated amount of personal trips per year. The volunteer program, however, does not provide assistance with his transportation to and from work five days a week, which means he has to "beg for a ride every day to go to work."

Best practices in the public and private sectors:

- Provision of telecommuting options (see "Work-Life Balance and Alternative Work Arrangements" issue brief).
- Provision of flexible work hours (see "Work-Life Balance and Alternative Work Arrangements" issue brief).

Promising public policies and initiatives:

- Vouchers to people with disabilities to pay for employment-related transportation expenses, including travel not just to work but also to job training, job interviews, medical appointments for employment-related health services, and so on.
- Job Access and Reverse Commute grants are used by some communities to provide transportation for people with disabilities with nontraditional work schedules and other workers who need flexible transportation options, and to fund transportation vouchers for people with disabilities.
- Creation of a transportation coordination committee, chaired by the Secretary of Transportation, to facilitate greater coordination of transportation services by local providers and agencies.
- Federal grants to states under the New Freedom Initiative to develop new transportation services and alternatives for people with disabilities.
- Support for state-based programs under the Assistive Technology Act of 2004 for loans or grants to individuals with disabilities to finance vehicle modifications for use in commuting to work.
- Agreements between government and vehicle manufacturers/modifiers to charge the cost of modifications to the government rather than to the person with a disability.
- Accessible taxi services are encouraged by some city programs.
- There are 62 federal programs to eliminate barriers for all people, including people with disabilities, who are transportation disadvantaged and who want to work.

I. Health Care

- Health, access to health care, and employment are intertwined.
- Lack of access to health care has a negative effect on health and therefore employment.
- Health insurance may also limit employment options: public programs such as Medicare can serve as a disincentive to employment, while employer-sponsored insurance can limit job mobility because of a fear of losing insurance.

• Because few private initiatives are under way, the most promising practices involve the expansion of public health coverage and statewide reforms for universal coverage.

Some insights from public forums and focus groups:

- Importance of health care:
 - In the Jacksonville forum, participants noted that health care remains a large issue and barrier for employers to hire individuals with disabilities because of the liability of health-related issues; this is especially true for smaller companies.
- Medicaid Buy-In program:
 - Participants in the Jacksonville forum said that a Medicaid Buy-In program, which Florida currently does not have, might solve some of the health care and employment issues faced by individuals with disabilities.
 - Though the state of Wisconsin does have a Medicaid Buy-In program, participants in the Milwaukee forum indicated the program does not fully address the problems because individuals are still expected to pay high premiums for their coverage and are hampered by income and asset restrictions. One participant who has personal experience with the program said that because of the asset limits and restrictions, she has not been able to advance in her career and receive salary increases.
 - Milwaukee participants suggested several improvements to the program, including changing the way income is taxed to buy into the program, and having a vesting option so that after five years all of the income and assets stay in the buy-in for life and are treated with the same earned income disregard that individuals would receive from earned income if they were competitively working in the program. This option would allow individuals with a disability to save for the future while at the same time working their way off public supports.
- Increasing the availability of health care:
 - The director of Vocational Rehabilitation in Wisconsin described a proposal to SSA that long-term services and supports be offered to individuals with disabilities before they reach 65 years of age, charging 15 percent on the earned income dollar as a premium for individuals to retain their benefits. This initiative would provide an individual with a disability the option to receive either the cash benefit plus health care or access

to the health care alone. For instance, some individuals require only assistance with health care. They can work, but it is no longer economical—because of their significant medical needs—to meet their health care needs through private insurance. This initiative could provide early intervention and ultimately prevent an individual from needing the cash benefit.

Promising public policies and initiatives:

- Increased access to Medicare and Medicaid health insurance for disability income recipients who return to work
- Legislative efforts by several states to increase health care coverage of the uninsured

J. Education

- Educational policy and practice have a strong effect on employment opportunities. Part of the employment and earnings gaps faced by people with disabilities stems from a gap in education—they are less likely than those without disabilities to have completed high school or college.
- Federal policy since 1975 has sought to provide individualized educational services to children with disabilities, and now includes transition planning to prepare secondary students for education, employment, and lifelong fulfillment in the postsecondary world.
- However, much transition planning lacks relevancy or is ineffective or poorly implemented. Moreover, after leaving the K–12 educational system, those with disabilities often are faced with services that are fragmented or have significantly dwindled, limited to minimal program accessibility, and targeted to training for low-paying jobs.
- Research shows a number of practices that promote successful school-to-work transitions for people with disabilities; the scan highlights promising policies related to greater awareness and use of transition research and data, and the blending and braiding of funding and resources.

Some insights from public forums and focus groups:

- Importance of education and training:
 - In the Milwaukee forum, a representative with CleanPower, which provides cleaning services to businesses, employs individuals with disabilities and feels that their major challenge is the inability of the individual to perform the job functions. The IRS representative concurred, saying that the biggest barrier is the qualifications of the individual. A representative from Milwaukee County Disability Services said that many individuals with disabilities are not aware of their full potential and, therefore, are unable to present themselves in a confident manner. Individuals with disabilities often experience gaps in their work experience and become disconnected from the workplace, which causes another challenge in terms of maintaining skills.
 - In the Jacksonville forum, the Disability Program Navigator talked about the impact of the High School/High Tech program, which works with students with disabilities in high school, exposing them to careers in the high-tech industry through field trips and mentoring opportunities with a wide range of businesses.
- Giving students with disabilities skills for self-advocacy:
 - In the Milwaukee forum, a representative from the Milwaukee Public Schools transition program stressed that educators need to have access to resources and information to help youth with disabilities self-advocate for the services and supports that they will need in order to obtain meaningful employment opportunities.
 - A representative from the Milwaukee County Transition Advisory Board shared that they started their work in developing advocacy skills at the high school level, but recently began the transition process starting with fifth graders. Once or twice a year, the board provides an information forum for parents on topics such as housing and independent living resources.

Best practices in the public and private public sectors:

• Company programs to provide internships and job training to students with disabilities. Examples:

Pitney Bowes has "made a commitment to mentor high school students with disabilities. They have provided internships to the students with disabilities from Goodwill's High School/High Tech program." (McMahon et al. 2004)

IBM's Entry Point program, as noted in the "Recruitment and Retention" section above, is a partnership with the AAAS and NASA. It places students with disabilities into summer internships that often lead to regular employment. In addition to the internships, the program has STEM (Science, Technology, Engineering, Math) Entry Point Camps focused on providing training for boys and girls with disabilities in middle and high school.

Promising public policies and initiatives:

- Expanded use of and support for transition research and data.
- School and agency coordination of assessment and planning.
- Work-based training in both school and community employment settings.
- Blending and braiding of resources/funding for critical program elements.

K. Housing and Livable Communities

- Employment of people with disabilities is affected by access to quality housing in livable communities in a number of ways.
- Where accessible housing is sparse, people with disabilities will have more difficulty finding housing near good jobs; inaccessible housing can make it difficult for an employee to leave the home, to go to work, or to work at home as a telecommuter, and can create extra demands on time and energy that take away from one's time for employment.

- More broadly, livable communities facilitate employment. They should a) provide affordable, appropriate, accessible housing; b) ensure accessible, affordable, reliable, and safe transportation; c) adjust the physical environment for inclusiveness and accessibility;
 d) provide work, volunteer, and education opportunities; e) ensure access to key health and support services; and f) encourage participation in civic, cultural, social, and recreational activities.
- Though no one community in the United States has addressed all six of these livability goals to equal degrees, many states, counties, and local communities have made extraordinary improvements in livability for people with disabilities in one or even several of these areas.
- Their experiences and achievements can serve as inspiration and provide replicable best practices that other communities can emulate as they strive to become more livable.

Promising public policies and initiatives:

- The Aging and Disability Resource Center established a grant program to pilot new approaches to interagency coordination that improve access and the availability of information to meet the needs of senior citizens and people with disabilities.
- There are 157 active 2-1-1 systems in 32 states that provide consumers with centralized information and referral to basic human needs resources; physical and mental health resources; employment support; support for older people and people with disabilities; and support for children, among other services.
- Financial incentives for home ownership include the Low Income Housing Tax Credit, which is a significant source of financing for developers seeking to construct and rehabilitate housing for people with disabilities.
- Creation of common performance measures across federally funded programs is encouraged by the Program Assessment Rating Tool and the Administration on Aging.
- Individual Development Accounts are "asset development tools"—matched savings accounts that help people with low incomes accrue funds for the purpose of purchasing a first home, paying for postsecondary education, or starting a small business.
- United We Ride is a new program that provides information, technical assistance, and grants to states to develop and implement comprehensive action plans to make human service transportation more cost-effective, accountable, and responsive to consumers who face transportation difficulties.

• Medicaid offers states the opportunity to receive federal financial assistance to share in the cost of a wide range of community services. Similarly, SSA has waiver authority it can grant to states on a case-by-case basis to modify existing policies and procedures and encourage testing alternative policies and procedures that promote independence and self-sufficiency for individuals with disabilities and their families. States currently operate more than 250 distinct waiver programs. Through waiver programs states have the ability to design programs that meet the unique needs of individuals with disabilities.

L. Long-Term Services and Supports

Key points from issue brief:

- Long-term services and supports (LTSS) include a variety of nonmedical services and supports for people with disabilities, such as personal assistance, assistive technology, financial management, housing, transportation, and nutrition.
- These affect employment of people with disabilities in three basic ways: LTSS in the workplace can make work possible or more productive; LTSS outside the workplace can affect the employability of people with disabilities; and the projected growth in home health aides offers employment opportunities for people with disabilities.
- The current system of long-term services and supports, which is primarily funded by state and Federal Government programs, is facing a number of problems and pressures, requiring greater coordination and oversight among the agencies and programs. Several potential reforms are presented.

Some insights from public forums and focus groups:

- Importance of long-term services and supports:
 - The employer focus group participants came to a consensus on the need to provide external supports to employees with disabilities so that they can maintain employment, including increased access to timely and reliable transportation options; the need for government assistance in providing prescription and other health care assistance to employees with disabilities; assistance with housing; and benefits planning and flexibility with Social Security recipients who are seeking employment.

- Value of job coaching:
 - In the employer focus group, EchoStar identified decreasing the time it takes for employers and employees to access supports such as job coaching as a way to further facilitate retention. Employers would benefit from having access to more job coaches who are experts in different fields. "I wish we had actually a resource pool of job coaches that come on site. . . ."
- More simplified and centralized information on services and supports:
 - In the Milwaukee forum, participants suggested that there should be a "one-stop" that coordinates the multiple systems under one umbrella, so individuals—based on need and criteria—can identify the programs for which they are eligible.
 - In the Jacksonville forum, participants also said the current system for identifying and obtaining supports and services to assist an individual with a disability is very complicated and fragmented; it is difficult to gain access to simple and consistent information. There should be one focal location with information about all the service providers and organizations that are available to assist an individual with a disability.
 - Milwaukee forum participants responded very positively to the idea of creating an individual budget into which public benefits are combined (inclusive of health care, long-term supports, work incentives, asset development strategies, transportation, housing subsidies, and food stamps, etc.). If streamlined, the process could be as simple as going to a mall kiosk where individuals would input their family dynamics and learn which programs they are eligible for. This experience has been exhibited within the One-Stop Career Center system, where customers have the choice of services they want to take part in, and the central entity is responsible for figuring out the funding source.
- Increased collaboration among agencies:
 - Participants in the Milwaukee forum said that disincentives for collaboration should be removed. They said that they will not be able to bring the public and private sectors together if they continue to have separate systems that must comply with different funding mandates. In order for agencies to begin to address these barriers, legislation must be passed that removes the current disincentives to collaborate. (This is a form of blending/braiding funding strategies discussed in the "Education" issue brief.)

- Likewise, participants in the Jacksonville forum suggested providing a financial reward for agencies that are impacting employment opportunities for individuals with disabilities, and for interagency coordination and collaboration. There should be a system in which agencies report on how they worked in a complementary way with other agencies.
- Initiatives to increase access to long-term services and supports:
 - As described above in the "Health Care" section, the Wisconsin Department of Workforce Development is proposing to SSA that long-term services and supports be offered to individuals with disabilities before they reach 65 years of age by charging 15 percent on the earned income dollar as a premium for individuals to retain their benefits.
 - Participants in the Jacksonville forum described the Florida Freedom Initiative, which focuses on Medicaid beneficiaries with the aim of improving delivery of long-term supports and services. SSA is conducting a demonstration that consists of waiving certain SSI program rules for participants, to test whether the waivers promote work and asset building. Jacksonville is forming a coalition of community partners to coincide with these demonstrations, which we hope will continue to meet on a regular basis to address areas of need within the disability community.
 - Participants in the Veterans focus group described the Compensated Work Therapy/Veterans Industries program, which provides training, work experience opportunities, case management, and vocational rehabilitation services that facilitate competitive employment opportunities. It maintains relationships with business and industry to promote employment opportunities for Veterans with physical and mental disabilities.

Best practices in the public and private sectors:

• Provision of workplace personal-assistance services and assistive technology, often in partnership with public and nonprofit agencies.

Examples:

"A state agency maintenance mechanic had difficulties climbing stairs and carrying materials. The job was restructured so that this individual always worked in a team with another mechanic. The coworker was easily able to carry the equipment and do the required lifting while this worker performed other necessary tasks." "A federal agency employed two full-time sign language interpreters to accommodate communication needs of numerous deaf employees. Having interpreters on staff eliminated the need to contract out for this service. This eliminated the need to schedule interpreters in advance, allowing for impromptu meetings. In addition, these interpreters were familiar with the agency's vocabulary, protocols, and individuals, therefore enabling them to perform their duties better." (Barcus and Targett n.d.)

Promising public policies and initiatives:

- Make the home- and community-based services program a state plan requirement in the Medicaid program.
- Have federal funding follow the person from a nursing home to a community setting as part of a person-centered plan and self-directed budget (the Money Follows the Person option).
- Amend the ERISA law governing employee benefits so that custodial care at work by personal-care assistants can be covered by the company, and/or have personal-care assistance at work covered by government funding.
- Authorize funding for collaboration between community colleges and disability-related organizations to develop a high-quality set of competencies to be taught in a new support worker certificate program.
- Improve coordination of resources at the community level among the 200 programs and 20 agencies that provide LTSS.
- Conduct a feasibility study of possible new insurance products with supplementary Medicaid coverage for people with disabilities under age 65.
- Establish a National Resource Center on Consumer Self-Direction that identifies and disseminates best practice information on person-centered plan development, self-directed management of individual budgets, and examples of multiple funders combining funds within an individual budget to achieve common negotiated performance objectives.
- For the long term, establish an AmeriWell program—a prefunded, mandatory, long-term services and supports model that provides all Americans of any age with coverage from birth based on criteria of risk and functioning, and not category of disability.

4. Policy Recommendations

As has been pointed out in many National Council on Disability (NCD) reports and documented in this current work, there is no easy answer to the complicated public policy issues that continue to deny people with disabilities full access to American life. Much has happened to improve the access of some people with disabilities to employment, yet much remains to be done. The literature review, issue briefs, focus groups, and public forums conducted for this report all continue to document that employment issues cannot be separated from other factors in the life of a person with a disability. Education, work experience, family roles, transportation, housing, health care, and disability income must all be coordinated for an individual to successfully access and maintain employment at the highest level possible.

The need for coordinated solutions is apparent when considering that many people with disabilities face diverse barriers on both the supply and demand sides of the labor market. Even employers that are eager to hire people with disabilities often find that problems such as commuting difficulties (including lack of accessible public and private transportation, and the high cost of retrofitting vehicles) and the need for personal care assistance for custodial care can make it difficult for some potential employees to get to work. Similarly, even highly qualified people with disabilities who are able to get to work may face organizational cultures that limit their opportunities. A comprehensive approach needs to simultaneously address problems on both the supply and demand sides: helping make people with disabilities ready and available for employment while working with employers to ensure that good opportunities are available.

The issue briefs present a number of best practices that employers in the public and private sectors should carefully consider, along with promising public policies and initiatives. This final chapter does not reiterate the successful examples of existing public policies and programs provided in the issue briefs and summarized in chapter 3. Rather, it provides a road map to what should be done now—recommendations for new policies or initiatives that should be undertaken in nine areas.

1. Conduct Public Forums on the Status of the New Freedom Initiative

Implementation Lead:Government Accountability Office (GAO)Office of Assistant Secretary for Planning and Evaluation,
Department of Health and Human ServicesCommissioner, Rehabilitation Services Administration
Assistant Secretary, Office of Disability Employment
Policy, U.S. Department of Labor

Despite passage of the Ticket to Work and Work Incentives Improvement Act in 1999, multiple demonstration initiatives to advance community participation and improved employment and economic status for working-age adults with disabilities, and growing employer demand to meet workforce needs, the post-ADA statistics regarding employment have not indicated significant change. People with disabilities, state policymakers, employers, and rehabilitation professionals represent the diverse stakeholder interests who should be invited to participate over the next 12 months in New Freedom Initiative Public Forums to be held in each of the 50 states. The purpose of the forums is the document the current state of the states in breaking down the remaining barriers to employment and full participation in the economic mainstream. The record created should be synthesized into a report to Congress to be presented by GAO with findings and recommendations for policy improvement.

2. Design and Fund a Coordinated Set of Demonstration Projects by Multiple Federal Agencies

Implementation Lead:U.S. Departments of Labor, Health and Human Services,
Transportation, Education, and Treasury in cooperation with
the Social Security Administration

The focus groups and public forums affirmed the findings from multiple research studies of the lack of coordination among multiple systems of support as well as the complexity of the myriad rules and regulations to comprehend the options for continuation of benefits with means-tested entitlements.

A series of demonstration projects should be designed and implemented that takes a holistic approach to the multiple needs of working-age adults with significant disabilities. Rather than the

separate approach to systems change grants of multiple agencies, there should be a set of demonstration grants targeted to states that combines funding from the listed lead agencies to enhance employment opportunities though the provision of the following:

- Workplace accommodation targeted loans to small employers
- Transportation assistance (including vouchers to people with disabilities to pay for employment-related transportation expenses, and direct government funding of vehicle modifications for purpose of work commuting)
- Personal care assistance and health care as a portable benefit that removes employer fears of cost
- Incentives to develop affordable housing with universal design standards to enhance employment options and community participation
- Subsidies to students with disabilities for education that leads to employment in highgrowth occupations

The projects recognize the multiple barriers to employment for a person with significant disabilities both at and away from the work site. The projects recognize as well the importance of public-private collaboration engaging the employer community with new incentives to advance employment opportunities for working-age adults with disabilities. Multiple federal agencies would share in the costs to facilitate employment outcomes. States, with their business community partners, would be provided with the flexibility to propose additional elements to a comprehensive set of strategies to make work a more viable option without fear of loss of health care and long-term supports. States could propose waivers of existing regulations to help produce improved employment outcomes and advance a better economic future through income preservation and asset-building activities.

GAO or the Congressional Research Service should monitor these demonstration projects with particular emphasis on the policy implications and the benefits of improved interagency collaboration.

3. Establish and Maintain a National Business Advisory Council

A National Business Advisory Council (BAC) composed of Fortune 100 companies as well as small employer representatives provided critical input in the conduct of this study. The council would be a forum for sharing information, increasing understanding of the employer perspective on hiring, accommodation, and retention practices, and provide advice on future policy devel-

opment. By Executive Order the President would establish a National BAC with the selection of representatives of diverse market sectors who have a documented record of success in the recruitment, hiring, accommodation, and advancement of workers with disabilities that is also sensitive to the full spectrum of disability-physical, sensory, and intellectual disabilities. The National BAC will advise the President and federal agencies on opportunities to promote policy and service delivery, and encourage best practices that improve employment and better economic outcomes for the target population. Special focus will be on exploration of public-private partnerships and improved cross-agency collaboration. Ad hoc members of the BAC would include the Departments of Labor, Health and Human Services, Education (Rehabilitation Services Administration and Office of Special Education Programs), Transportation, and Housing and Urban Development and the Social Security Administration, Small Business Administration, Centers for Medicare and Medicaid Services, Substance Abuse and Mental Health Services Administration, and the National Council on Disability. The group would meet quarterly and have a small staff and budget to facilitate communication and collaboration. An annual report to Congress and the President would be produced to identify outcomes and continuing policy barriers to employment goals.

4. Conduct a Public Information Campaign

| Implementation Lead: | U.S. Department of Labor |
|----------------------|--|
| | Rehabilitation Services Administration |
| | Social Security Administration |
| | U.S. Department of Commerce |

Despite increasing communication between the business community and disability-related organizations to overcome misunderstanding and stigma related to disability, forum and focus group participants expressed strong support for a media campaign to help educate employers and match employers and people with disabilities. Similar strong support for such a campaign was echoed by the business advisors to this study. The campaign should bring together resources from the multiple lead agencies to design and produce a single campaign with consistent positive images and message. The campaign should accomplish the following:

- Address stereotypes that create stigma
- Publicize the best practices that employers have used to expand employment opportunities for people with disabilities

- Publicize the many successful public-private partnerships where public and nonprofit agencies have worked with businesses to meet employment needs by helping to identify, train, mentor, and provide any needed ongoing support to people with disabilities
- Provide information on accessible mainstream technology, assistive technology, and universal design standards and technologies that enhance employment for people with disabilities, ensuring that the information is available in each workplace (see http://www.ncd.gov/ newsroom/publications/2006/emerging_trends.htm).

5. Clarify Congressional Intent and Restore Coverage of the ADA

| Implementation Lead: | Senate Judiciary Committee |
|----------------------|----------------------------|
| | House Judiciary Committee |

Multiple U.S. Supreme Court decisions have reduced the scope of coverage and protection against discrimination under Title I for thousands of individuals with disabilities. Congress should diminish employer uncertainty and reaffirm the intent of the ADA by clarifying coverage through a clearer definition of disability that protects individuals with limitations on daily activities without regard to accommodations or mitigating circumstances.

6. Improve Vocational Rehabilitation and Workforce Investment Services and Outcomes

| Implementation Lead: | House Committee on Education and Labor |
|----------------------|---|
| | Senate Committee on Health, Education, Labor, |
| | and Pensions |
| | |

Government Accountability Office

Primary and secondary sources of information deepened concern about the capacity and effectiveness of vocational rehabilitation and workforce development professionals to provide effective and meaningful services and supports to people with the most significant disabilities. Coordination and collaborations among VR agencies, Workforce Development, Veterans Affairs, and Social Security were limited and typically did not provide a seamless system of support. The response requires further research and fact finding by Congress, GAO, and the federal agencies with primary responsibility for the achievement of a common objective of work and better economic status for adults with significant disabilities.

- GAO should continue its recent study of VR to further evaluate how VR services correlate with successful employment outcomes and how the impact of existing definitions of successful case outcomes may influence the range and content of services provided to people with disabilities.
- GAO should conduct a followup study to determine the extent of improvements in the accessibility and program participation of job seekers with disabilities in One-Stop Career Centers with special attention to achieved work-related outcomes. Service recipients with disabilities should be recruited to test accessibility and accommodation measures now in place. The study will assess the need for increased enforcement of accessibility and accommodation measures.
- The House and Senate committees with the authority to conduct oversight of the Workforce Investment Act should hold hearings to examine the problems of system fragmentation and the impact of Disability Program Navigators to improve collaboration within and outside the One-Stop Career Centers to more effectively meet the needs of people with disabilities who want to work, including the provision of self-directed budgets based on personcentered plans with bundled funds from multiple agencies.

7. Modify the Social Security Disability Income System to Promote Work and Advance Self-Sufficiency

| Implementation Lead: | Senate Finance Committee |
|----------------------|--------------------------------|
| | House Ways and Means Committee |
| | Social Security Administration |

There should be continued focus on efforts to change the SSDI and SSI systems to encourage work as opposed to requiring participants to prove inability to work. See the NCD issue brief at http://www.ncd.gov/newsroom/publications/2006/issue_brief.htm.

NCD recommends the following:

• SSA evaluate the viability and effectiveness of current work incentives, including PASS, PESS, IRWE, and 1619 (a) and (b), and the changes that are needed to improve utilization of the Ticket to Work and state expansion of the Medicaid Buy-In option. The House and Senate authorizing committees mandate SSA to conduct a multistate demonstration that allows SSI and/or SSDI beneficiaries to work without loss of cash benefits or health coverage for a period of five years, following which the impact of such an approach on their long-term employment will be assessed.

8. Improve Access and Availability of Long-Term Services and Supports (LTSS)

| Implementation Lead: | Senate Finance Committee |
|----------------------|--|
| | House Energy and Commerce Committee |
| | Centers for Medicare and Medicaid Services (CMS) |

NCD researchers documented the challenges faced by working-age adults regarding access to an array of long-term services and supports that make employment possible. LTSS included but is not limited to supports such as personal-assistance services, transportation, accessible housing, access and use of technology, mental health counseling, and nutrition. The access to LTSS includes traditional access in the home but also must respond to the challenges of getting to the work location and supports needed in the workplace. The most significant funding of LTSS today is through Medicaid coverage, which requires continued documentation of medical necessity and limited income and resources. To advance the ADA goals of independence and community inclusion, CMS would allow employment supports as a Medicaid-reimbursable set of services that extends eligibility beyond the medical necessity test and use income disregards or other means to allow individuals with significant disabilities to be employed, earn more income, and advance their self-sufficiency.

NCD reaffirms the following set of policy recommendations that were first made in its report titled *The State of 21st Century Long-Term Services and Supports: Financing and Systems Reform for Americans with Disabilities.*

- a) Shift the home- and community-based services program from its current waiver status to a state plan requirement. Eligibility would be delinked from nursing home eligibility and states would receive an increased federal match under their state costsharing agreement for services provided in this category as part of their Medicaid reimbursement for authorized expenditures. CMS would set guidelines for a functional assessment process and minimum threshold of services to be covered, including personal-assistance services.
- b) Hold congressional hearings to evaluate possible options for improvement of department collaboration to provide access to information and supports and services to meet the long-term needs of people with disabilities under and over age 65.
- c) Require the Department of Housing and Urban Development (HUD) and Health and Human Services (HHS) to document current efforts and future plans to improve and expand the availability of affordable, accessible housing that is coordinated with services/supports, when needed. Establish an Interagency Council on Meeting the Housing and Service Needs of Seniors and Persons with Disabilities.
- d) Add to the Program Assessment Rating Tool performance criteria indicators that will evaluate documented outcomes from intra-agency and cross-agency collaboration to meet LTSS needs of people with disabilities. Consider possible financial incentives for agencies that document valued outcomes from LTSS system collaboration. Report annually to Congress on individual agency performance in this area.
- e) Issue a new Executive Order charging CMS to chair a time-limited (six months) workgroup on LTSS that includes representation by HUD, HHS, SSA, and the Departments of Education, Labor, Justice, Transportation, Treasury, and Agriculture to identify policy barriers to and facilitators of an improved comprehensive, coordinated system of LTSS for people with disabilities that maximizes interagency collaboration, promotes consumer direction, and increases consumer choice. CMS and the Congressional Budget Office should study states that are having success with global budgeting.
- f) The Assistant Secretary for Planning and Evaluation (APSE) at HHS, CMS, and a private insurer should conduct a feasibility study of possible new insurance products with supplementary Medicaid coverage for people with disabilities under age 65 and project market demand and needed incentives to share risk among stakeholders. Consumer self-direction requires information, education, and training to

build the critical skills needed to make informed decisions. The system should continue to provide competitive grants that establish Aging and Disability Resource Centers in all 50 states that provide one-stop access to information advice on long-term support options.

The system should establish, with funding from CMS, a National Resource Center g) on Consumer Self-Direction that identifies and disseminates best practices information on person-centered plan development, self-directed management of individual budgets, and examples of multiple funders combining funds within an individual budget to achieve common negotiated performance objectives. The system should require states, as part of their home- and community-based services waiver implementation, to provide education and training to eligible Medicaid beneficiaries on effective and meaningful participation in person-centered planning, management of individual budgets, and negotiation with service and support providers. The system should establish a cross-agency workgroup that involves CMS, the Administration on Aging, SSA, the Administration on Developmental Disabilities, HUD, the Office of Special Education and Rehabilitative Services at the Department of Education, and the Department of Labor to accelerate options for states to bundle and/or braid public funds within a self-directed individual budget with streamlined and accelerated eligibility procedures.

In addition to these proposed incremental reforms, NCD continues to support a more comprehensive "clean slate" reform to establish the AmeriWell program.

AmeriWell is a prefunded, mandatory, long-term services and supports model that provides all Americans of any age with coverage from birth based on criteria of risk and functioning, and not category of disability. AmeriWell delinks LTSS from Medicaid and Medicare, creating its own governing agency, regulations, oversight, and congressional committee. The contributions of individuals and families, the private sector, and the Federal Government fund AmeriWell. A penny pool is established through private stock transactions to supplement LTSS costs for impoverished and vulnerable Americans previously served under Medicaid and Medicare.

9. Increased Opportunities for Self-Employment

| Implementation Lead: | General Services Administration |
|----------------------|---------------------------------|
| | Small Business Administration |
| | Senate Finance Committee |
| | House Ways and Means Committee |

Multiple research studies have documented the growing interest of people with disabilities in self-employment. Both at the public forums and in the focus groups, people with disabilities suggested numerous ways to improve self-employment options.

- a) The SBA should, in concert with the General Services Administration, affirm the inclusion of small businesses owned by people with disabilities as minority contractors with 8A status. Federal procurement of services and products sets aside awards exclusively for 8A contractors to increase business opportunities.
- b) The Senate and House authorizing committees for changes to the tax code should provide incentive for corporations to purchase products and services from small businesses owned by people with disabilities. The incentive could be a tax credit based on the volume of business.
- c) The SBA should establish and fund a National Resource Center on Self-Employment and Persons with Disabilities. The center will provide training and technical assistance to Small Business Development Centers (SBDCs) nationwide to improve their outreach and meaningful and effective support of people with disabilities. The center will also help advance cross-agency collaboration with VR and One-Stop Career Centers that improves coordination with SBDCs and lenders.

Appendix A: Business Advisory Council Membership

Chair: J.T. (Ted) Childs Jr., Principal, Ted Childs LLC

Adecco, Melville, NY: Lois Cooper, Vice President, Employee Relations and Diversity

American Airlines, Fort Worth, TX: Andrea Clark, Senior Attorney

American Express, New York, NY: Linda Hassan, Director, Global Diversity Recruitment

Bear, Stearns & Co. Inc., Brooklyn, NY: Bettie Jones, Associate Director, Human Resources

Boeing Company, Chicago, IL: Joyce Tucker, Vice President, Global Diversity

Coca-Cola, Atlanta, GA: Miriam Gotay, Consultant, Diversity and Workplace Fairness

Colgate-Palmolive Company, New York, NY: J. Jeffrey Walker, Director of Facilities Management

Comcast: Shanda Bradley Hinton, Manager, Strategic Staffing and Development

General Motors, Auburn Hills, MI: Willie Jones, General Motors Service Parts

- IBM, Armonk, NY: Millie DesBiens, Global Workforce Diversity, and James Sinocchi, Director of Human Resources Communications
- Johnson & Johnson, New Brunswick, NJ: Marion Hochberg Smith, Director of Equal Opportunity and Workplace Solutions

JPMorgan Chase, New York, NY: Joan McGovern, Vice President, Director, Access Ability

McDonald's, Oak Brook, IL: Kevin Bradley, Director, Diversity Initiatives

Merrill Lynch, Pennington, NJ: Chris Fossel, Vice President, Global Private Services Group

Northwire, Osceola, WI: Vickie Jensen, Director of Human Resources

Open Doors Organization, Chicago, IL: Eric Lipp, Executive Director

Pitney-Bowes, Stamford, CT: Michael T. Holmes, Director of Global Diversity

Positive Vibe Café, Richmond, VA: Garth Larson, General Manager

Procter & Gamble, Cincinnati, OH: Ronald Nichols, Senior Manager, U.S. Employer Relations

The Rockefeller Group: Patricia Glorioso, Human Resources Director

SODEXHO, Thiells, NY: Joanne Martino, District Manager

Time Warner, New York, NY: Gerri Warren-Merrick, Vice President, Global Public Policy

UPS, Atlanta, GA: Randi Menkin, Manager, Workforce Planning Wal-Mart Stores, Inc., Bentonville, AR: Deidre A. Davis, Director, ADA Services Wells Fargo, San Francisco, CA: Amy Mosebach, Commercial Loan Officer

Appendix B: Expert Advisory Panel Membership

- Monroe Berkowitz, Professor of Economics Emeritus, Rutgers–The State University of New Jersey
- Bruce Growick, Associate Professor of Rehabilitation Services, Ohio State University
- David Hammis, Senior Partner, Griffin-Hammis Associates, Middletown, OH
- Allen Jensen, Senior Research Staff Scientist, Center for Health Services Research & Policy, George Washington University

Jack McGrath, Way Station, Inc., Frederick, MD

- Steven Mendelsohn, Senior Research Associate, Law, Health Policy & Disability Center, University of Iowa
- Bruce Patterson, Senior Vice President, ServiceSource, Alexandria, VA

Anne Rea, Director of Employment Services, Way Station, Inc., Frederick, MD

APPENDIX C: ISSUE BRIEFS

Employment policies, practices, and types

- Issue Brief #1: Recruitment and retention
- Issue Brief #2: Employee development
- Issue Brief #3: Work-life balance and alternative work arrangements
- Issue Brief #4: Reasonable accommodations
- Issue Brief #5: Corporate culture
- Issue Brief #6: Universal design
- Issue Brief #7: Self-employment

Other dimensions affecting employment

- Issue Brief #8: Transportation
- Issue Brief #9: Health care
- Issue Brief #10: Education
- Issue Brief #11: Housing and livable communities
- Issue Brief #12: Long-term services and supports

Recruitment and Retention of People with Disabilities Employment Issue Brief #1 National Council on Disability

Abstract

Recruitment and retention are key factors in the employment of people with disabilities. A substantial amount of research indicates that many employers are reluctant to hire people with disabilities, which often reflects discrimination or ignorance about their value as employees. Following a brief review of this research, this issue brief summarizes information on employer policies to ensure accessibility of the hiring process, including national survey evidence along with examples of innovative company programs for targeted recruitment and training to increase hiring and retention of qualified people with disabilities.

Introduction

Employment gaps between people with and without disabilities have been well documented in many studies. The most recent data from 2005 shows that people with disabilities are only half as likely as those without disabilities to be employed (38% compared with 78%), and there is an especially low employment rate among those who have difficulty with self-care (17%) or difficulty going outside the home alone (17%) (Cornell RRTC 2006). The low employment rate is due in part to labor supply concerns (some people with disabilities do not seek employment) but can also be traced to labor demand—a lower likelihood that companies will recruit and retain people with disabilities who do want jobs.

When employers were asked, in a 2003 Rutgers national survey, about the greatest barrier to people with disabilities finding employment, the most common answers were the following (Dixon, Kruse, and van Horn, 2003):

> Reluctance of employers to hire, or discrimination/prejudice (20%) Lack of skills and experience among job seekers (17%) Need for special accommodations (7%) Lack of information about job opportunities (7%)

This issue brief focuses on the first two of these reasons, examining evidence on employer reluctance to hire and retain people with disabilities, along with programs that companies have used to overcome this reluctance and proactively seek out and train employees with disabilities. The evidence for the third reason—need for special accommodations—is dealt with more extensively in the accompanying "Reasonable Accommodations" issue brief. It should be briefly noted here that most people with disabilities do not require accommodations, and accommodation costs are generally low: The Rutgers survey found that only one-fourth (24%) of the employers who have workers with disabilities have needed to make accommodations for any of them, and where accommodations were made, the average cost was under \$500 for a majority (61%) of employers (Dixon, Kruse, and van Horn 2003).

The next section summarizes research on employer reluctance to hire, followed by sections reviewing company programs to a) increase accessibility of the hiring process, b) target people with disabilities for hiring, and c) increase retention of people with disabilities. The final section provides a variety of resources for further information on increasing hiring and retention of people with disabilities.

Employer Reluctance to Hire

Title I of the Americans with Disabilities Act (ADA), which outlaws employment discrimination against people with disabilities, was a response to evidence that employers are often reluctant to hire people with disabilities based on prejudice, stereotypes, and uncertainty (Braddock and Bachelder 1994). Apart from any discriminatory attitudes, uncertainty may be a significant barrier to employing people with disabilities: Employers may not understand the persons' abilities or know whether they can handle the job, and so be reluctant to make any type of investment in hiring them. There may be subtle prejudicial attitudes, when employers expect that the employment of people with disabilities will result in higher bottom-line costs because of absenteeism, poorer performance, turnover, accommodation necessities (Stone and Colella 1996), productivity, and worker compensation rates (Fuqua, Rathbun, and Gade 1983). In light of the low employment and earnings rates of people with disabilities, it would seem that employers take two different measures to combat the higher costs associated with employing people with disabilities: not hiring people with disabilities in the first place, or paying them less to offset the cost.

The perception that people with disabilities are high-cost hires has its roots in other stereotypic perceptions. For example, Fichten and Amsel (1986, cited in Stone and Colella 1996, 358)

state that people with physical disabilities are perceived as "quiet, honest, gentle hearted, nonegotistical, benevolent, helpless, hypersensitive, inferior, depressed, distant, shy, unappealing, unsociable, bitter, nervous, unaggressive, insecure, dependent, unhappy, aloof, and submissive" more often than are people without disabilities. It is important to note that not all disabilities are viewed in the same way. The majority of the evidence appears to demonstrate that sensory disabilities (e.g., blindness, deafness) and cognitive disabilities (e.g., mental retardation, mental illness) are viewed less favorably than are physical disabilities (Bordieri and Drehmer 1986; Drehmer and Bordieri 1985; Fuqua, Rathbun, and Gade 1983; Ravaud, Madiot, and Ville 1992; but see Bell and Klein 2001). It has been suggested that the reason for the difference in how sensory/cognitive impairments are viewed compared with physical ones lies in the fact that physical impairments are seen as more consistent and predictable over time. With respect to employment, this means that employers can expect consistent and predictable job performance that is not adversely impacted by the symptoms or behavioral shifts associated with cognitive disabilities.

Research examining people with disabilities in the workplace has looked not only at whether people with disabilities are *perceived* differently, but also at whether they are *treated* differently. Studies have found that applicants with disabilities receive the following:

Fewer call-backs for interviews (Ravaud, Madiot, and Ville 1992)

Less favorable hire recommendations (Stone and Sawatzki 1980; Gouvier et al. 1991; Thomas and Thomas 1984)

Lower salary recommendations (Rose and Brief 1979)

Lower ratings than applicants without disabilities along a variety of dimensions (e.g., competence) (Bell and Klein 2001)

The above results do not simply reflect lower qualifications of applicants with disabilities: Research has found that applicants with disabilities receive less favorable hire recommendations even when they are rated as equivalent on work qualifications as are those without disabilities (Drehmer and Bordieri 1985). In general, unfavorable information about a job applicant is given greater weight than is other information (Rowe 1984), and it appears that a disability is clearly perceived as unfavorable information. Consistent with stereotype research, individuals with physical disabilities are discriminated against less in an employment context than are those with mental or neurological disabilities (Stone and Colella 1996).

The existing literature on disability discrimination includes surveys on employers' attitudes toward job applicants and employees with disabilities (see, e.g., Blanck and Marti 1997;

IB # 1: RECRUITMENT AND RETENTION

Bowman 1987; Hernandez, Keys, and Balcazar 2000; Fuqua, Rathbun, and Gade 1983; Millington, Rosenthal, and Lott 1997) and experimental studies manipulating disability status of applicants and examining how employment-related decisions are affected by such status (see, e.g., Cesare, Tannenbaum, and Dalessio 1990; Hitt and Barr 1989; Krefting and Brief 1976; Thomas and Thomas 1984). Both survey and experimental research paradigms have shown that people with disabilities fare worse on a variety of employment-related outcomes when compared with applicants without disabilities (e.g., in hiring, salary, and promotion decisions, as well as other measures of employee assessment). Indeed, the reticence to hire a person with a disability appears to extend even to applicants with only a potential for a future disability (Adya 2004; Adya and Bornstein 2005).

Though these research designs have been informative, their design has inherent limitations (see Adya and Bornstein 2005). Attitude reports are subject to a variety of biases, including social desirability (Holtgraves 2004). In addition, research has demonstrated that the link between one's reported attitude and actual behavior is tenuous and dependent on other factors (Kraus 1995). Even when attitude surveys are designed to control for social desirability, self-reported attitudes against discrimination are not indicative of actual behaviors (Pager and Quillian 2005). Experimental research can overcome these weaknesses by manipulating variables that induce reporting biases so that they are not explicitly detected by participants, and by using behavioral measures (e.g., hire decisions). Yet, experimental research can have limited real-world generalizability because of the artificial nature of the setting, task, and participants (Barr and Hitt 1986).

These weaknesses may be overcome by field studies that are complementary to the designs already discussed. Although field studies are less "controlled," they can be generalized more easily (see, e.g., Blanck and Turner 1987; Cook and Campbell 1979; Neisser 1976). Unfortunately, there is a dearth in the literature of scientifically valid field studies that take place in natural settings under realistic circumstances. This gap in the literature needs addressing, in part, to more fully assess a programmatic body of research and demonstrate that discrimination toward people with disabilities is a convergent finding. One study that is notable for addressing this gap with both rigor and real-world relevance was done by Ravaud, Madiot, and Ville (1992), who found that French companies that were mailed application materials were less likely to call back an applicant with a disability. This study, however, is now fourteen years old and was conducted in France. A study of the U.S. labor market using this design is now being conducted by the Burton Blatt Institute of Syracuse University (http://bbi.syr.edu).

A different type of field study that sheds light on discrimination is the analysis of wage differentials. In the past 15 years, more than a dozen empirical studies have attempted to measure wage and employment discrimination based on disability. Among the variety of techniques used by these studies, several have adjusted for productivity-related worker characteristics and then related the remaining gaps to measures of stigma for different types of disabilities. In a review of these studies, Baldwin and Johnson (2006) conclude that "a substantial part of the wage differential" can be attributed to disability-related discrimination.

The commitment of an organization to diversity and inclusiveness is also important to understand when examining the factors that affect the employability of people with disabilities, particularly given the data on the impact of cultural factors. Indeed, understanding the practices of organizations and values of employers is a necessary step toward ensuring the employability of people with disabilities. This conclusion is indicated by several types of evidence, listed below:

- Experimental studies find that supervisor and coworker attitudes have a strong impact on employment experiences of people with disabilities (Colella 1996, 2001; Colella, DeNisi, and Varma 1998; Marti and Blanck 2000).
- "Both [the private and federal] sectors identified visible top management commitment as the best method for reducing employment and advancement barriers (81 percent for the private sector respondents, 90 percent for federal)" (Bruyère, Erickson, and Ferrentino 2003).
- A recent study of nearly 30,000 employees from 14 companies and more than 200 work sites found that employees with disabilities face a number of disparities at work (including lower levels of pay, job security, training, and participation in decisions and higher levels of supervision) that help account for their higher turnover likelihood and lower levels of company loyalty and job satisfaction. Importantly, however, there were *no* disability gaps in attitudes and turnover intention in work sites that are generally viewed as fair and responsive by all employees. This research indicates that employees with disabilities fare much better in companies with a culture that is viewed as fair and responsive to the needs of all employees, whereas employees with disabilities are especially harmed by unresponsive bureaucratic organizations (Schur et al. 2006).

Further evidence on the importance of corporate culture is reviewed in the "Corporate Culture" issue brief.

Increasing Accessibility of the Hiring Process

What can be done to reduce the reluctance of employers to hire people with disabilities and create a more inviting culture? A number of companies have taken specific steps to increase accessibility for job applicants, often in response to the ADA but sometimes going beyond the ADA's requirements. The 2003 Rutgers survey showed the following actions taken by employers (Dixon, Kruse, and van Horn 2003):

| Changed format of job applications | 13% |
|--|-----|
| Made recruiting and interviewing locations accessible | 49% |
| (an additional 27% said they were already accessible) | |
| Changed tests or evaluations used in hiring or promotion | 12% |
| Changed company's Web site | 7% |

Making such changes appears not to be difficult for most employers. Among those who made changes, the following percentages of employers in the 1999 Cornell survey found it difficult to make preemployment changes for applicants with disabilities (Bruyère 2000):

| Making recruiting locations accessible | 5% |
|--|-----|
| Making interviewing locations accessible | 4% |
| Changing wording of job application | 6% |
| Changing interview questions | 9% |
| Modifying preemployment testing | 10% |
| Arranging for medical tests post-offer | 4% |
| Making employee orientation accessible | 3% |
| Providing info for hearing impaired | 23% |
| Providing info for visually impaired | 38% |
| Making restrooms accessible | 14% |

The only changes that were found to be difficult by more than one-tenth of employers were making restrooms accessible and providing information for those with visual or hearing impairments, but even for these changes a majority of employers did not report difficulty. One program that can decrease the reluctance of managers to hire people with disabilities is a centralized accommodations fund, so that any accommodation costs do not come out of a local manager's budget but are charged to the central company fund. These central funds are a best practice at several large companies, such as IBM and Microsoft.¹

Training of employees is also key to increasing company access for job applicants: The 1999 Cornell survey found that 85 percent of surveyed private employers had employees trained in nondiscriminatory recruiting, 80 percent had employees trained in defining job functions, and 66 percent had employees trained in disability awareness/sensitivity (Bruyère 2000). Similarly, most employers reported good familiarity with applicant interviewing issues: Over three-fourths said that their staff was familiar with framing questions on job tasks, restrictions on obtaining medical info, restrictions on eliciting medical info, and when to ask about job tasks. Again, the greatest difficulty is for people with sensory impairments: Only one-fourth (23%) reported having staff familiar with TTY (text telephone) technology to set up interviews for people with hearing impairments, and slightly more than one-fourth (28%) had staff familiar with adapting print material for people with visual impairments (Bruyère 2000).

A good company example of training on disability issues is provided by Giant Eagle, a retail grocery chain based in Pennsylvania. As described in the book on New Freedom Initiative award winners by Lengnick-Hall (2007), Giant Eagle sponsors disability awareness training for its human resource managers every two years. This is held offsite at a YMCA camp, with participation from several public and private disability agencies. Notes on the training follow:

"Half of the day is spent learning about the ADA and interviewing skills, while the remaining half of the day the human resource managers spent actually experiencing disabilities. Stations are manned by job coaches who simulate for the human resource managers what it is like for someone with a disability. For example, a wheelchair exercise allows the human resource managers to perform everyday activities, such as using a drinking fountain, maneuvering through doors and up and down ramps, and reaching for something on a shelf." (Lengnick-Hall 2007, 70)

Increasing Hires Through Targeted Recruiting

Apart from simply increasing accessibility in the hiring process, one-ninth (11%) of employers in the 2003 Rutgers survey said that they have made special efforts to attract job applicants with disabilities by developing recruiting methods and advertising job positions that specifically target

people with disabilities (Dixon, Kruse, and van Horn 2003). A good example of this approach is provided by Hewlett-Packard, as described by Lengnick-Hall (2007, 39):

"Front line supervisors, sometimes challenged with worker shortages, have been trained to expand their applicant pool, often going to a university they know and interacting with faculty to identify persons with disabilities who also have the necessary technical skills needed for a particular position. [In addition], HP makes a point of working with employment agencies that are noted for their training of people with disabilities.

"To increase the number of employees with disabilities in the company, Hewlett-Packard uses multiple sources. For example, they partner with several external organizations, including the American Association of People with Disabilities, Career Opportunities for Students with Disabilities, the National Technical Institute for the Deaf and Hard of Hearing, the Business Leadership Network, the Department of Labor, and numerous rehabilitation and vocational centers throughout the United States."

A targeted approach is also illustrated by several prominent companies that participate in programs to provide opportunities to young people with disabilities, serving not only to build individual skills but also to provide a source of recruitment for the companies. Following are several examples:

IBM's Entry Point program is a collaboration with the American Association for the Advancement of Science and NASA, whose mission is to place students with disabilities in business and government and prepare them for corporate and community leadership. Since 1997, IBM has had 191 student placements in summer internships and hired 44 students into regular employment. In addition to the internships, the program has STEM (Science, Technology, Engineering, Math) Entry Point Camps focused on providing training for boys and girls with disabilities in middle and high school.²

"SunTrust has developed the Emerging Leaders Program that targets high achieving college students with disabilities into summer internships and the potential for future employment within the network." (Lengnick-Hall 2007, 57–58)

"Giant Eagle's Project Opportunity was designed to give students with disabilities realistic employment targets, independence, self-confidence, and ultimately a permanent job with Giant Eagle." (Lengnick-Hall 2007, 68) "Microsoft has numerous programs for young people with disabilities: job shadowing, career days, internships, scholarships, curriculum development, campus visits, panel discussions with Microsoft employees who have disabilities, and software donations. Microsoft also sponsors 11-week paid internships with federal agencies in Washington, D.C., for students with disabilities." (Lengnick-Hall 2007, 77)

Another successful example of this approach is provided by the Cincinnati Children's Hospital Medical Center, which created Project SEARCH in collaboration with two disability agencies: the Great Oaks Institute of Technical and Career Development, and the Hamilton County Board of Mental Retardation and Developmental Disabilities. Young people with disabilities work at the medical center with training and ongoing support from professionals in the two outside agencies. As described in McMahon et al. (2004):

"All of the employed individuals report to their department supervisors, like traditional employees. But in addition, follow-along services assist the worker in resolving problems and adapting to changes that may seem minor or embarrassing for supervisors to address (scheduling special transportation, dealing with coworker requests, hygiene), yet can lead to termination for these workers if effective and knowledgeable support is not provided. . . . These employees work in a wide range of positions, often overlooked for people with developmental disabilities. Many of these require mastering complex functions, yet they are routine in nature, such as sterilization tech, department sticking, lab courier, and clinical support staff.

"We see the program as a valuable recruitment source and retention solution for us,' explained Lori Southwood, director of HR for Children's. 'They are extremely proficient in what they do. They have helped us fill positions in different ways; so that work that was not getting done, or done well, has been turned into jobs that can be done by these folks, and is being done much better than before. At first you expect many hurdles. We have learned that perception is the hurdle. Employers need to experience it once and then they will see. When there is a disciplinary or performance problem with an employee in the program, the support structures are in place and the resources are made immediately available to the supervisor to correct and resolve the rare problems that occur."

A final example of productive collaboration in recruiting people with disabilities is provided by the University of Alabama at Birmingham (UAB), which partners with the Alabama Department of Rehabilitation Services. Their arrangement allows the Vocational Rehabilitation (VR) staff

member to "function more as an 'insider'; becoming familiar with the jobs, supervisors, and the hiring process at UAB." As described in McMahon et al. (2004):

"This system improved the pre-screening and matching of applicants with jobs, made VR more accountable to UAB after placements, and gave VR more timely access to hiring opportunities for its clients. The relationship has been supported at top management levels through direct involvement of an assistant vice president in Human Resources on the VR agency's governing board. In turn, the Agency has cultivated its role as a trusted partner by providing a growing scope of disability employment services in response to needs that are identified by being on site. The scope of the current partnership now includes:

- Providing well-prepared, prescreened applicants from VR to help meet UAB's recruitment needs.
- Providing an 'account rep' from VR to serve as a liaison to UAB overseeing services and recruiting from VR.
- Providing VR clients' with opportunities to explore jobs and receive training in the workplace prior to hire and in accordance with wage and hour guidelines, without obligation for either party.
- Providing customized VR services for UAB employees whose job performance is affected by disability, illness, or injury.
- Providing a jointly funded rehabilitation counselor at UAB in the Office of Human Resource Management to coordinate all of the above services and give VR a permanent, on-site presence.

"The recruitment component of the partnership provides prescreening and placement of new employees with disabilities for employment at UAB. . . . As a result, over 250 VR candidates with a variety of disabilities have been recruited to UAB, and successfully hired into a wide range of jobs."

Increasing Job Retention

Apart from difficulty in getting hired, people with disabilities may be at greater risk of losing their jobs after they are hired. The limited evidence on job retention tends to indicate that people with disabilities are less likely than those without disabilities to be retained by companies:

• Workers with disabilities in 1990–1993 were more likely than their counterparts without disabilities to be fired by employers, consistent with either a job-mismatch hypothesis or with employer discrimination (Baldwin and Schumacher 2002).

- Among nearly 30,000 employees surveyed in 14 companies in 2001–2006, employees with disabilities were significantly more likely than those without disabilities to say that they were very or fairly likely to lose their jobs in the next 12 months (23% with disabilities compared with 13% without disabilities) (Schur et al. 2006).
- There is only weak evidence that male workers with disabilities are more likely than those without disabilities to be laid off in a declining labor market, but those who are laid off are more likely to enter disability programs and not return to employment. Female workers with disabilities, however, are no more likely than those without disabilities to be laid off (Stapleton, Wittenburg, and Maag 2005).

To increase retention of employees with disabilities, it is important that they have access to a variety of skill-building activities and networks. The "Employee Development" issue brief covers evidence of the following programs and activities:

Formal training programs Informal on-the-job training Mentoring Networking Career planning Performance appraisals Participation in teams and decision making

In addition to the company programs highlighted in the "Employee Development" issue brief, following is an example of a program specifically targeted to improve retention of employees with disabilities. This program developed out of the collaboration described above between the University of Alabama-Birmingham (UAB and the Alabama Department of Rehabilitation Services:

"The newest component of the partnership is geared toward retention. The RAVE program, Retaining a Valued Employee, was launched nearly two years ago as a pilot project proposed by the VR agency to be a jointly funded endeavor housed at the University. VR approached the University with a proposal to create a shared position, with half the salary from each of the partners and reporting to dual supervisors within each organization. From VR's perspective, the RAVE counselor would be able to provide invaluable inside connections for VR to access the extensive array of employment and training opportunities of this very large and high quality employer for people with disabilities. In addition, by assisting the employer with its internal accommodation efforts, the RAVE program could help prevent employees from unnecessarily moving out of employment and eventually onto public disability benefits."

"For Susan McWilliams, Vice President for Human Resources at UAB, it was an easy sell for UAB. . . . 'There are greater risks and more costs to hire a new unknown than to invest in a fully proven and productive employee who needs a reasonable accommodation,' explains McWilliams. . . . As partners, they have been able to respond rapidly and access technical assistance and resources through the RAVE program to retain most of the referred individuals in employment." (McMahon et al. 2004)

Additional Resources

For overviews of successful company programs to hire and retain people with disabilities, see the following:

- Lengnick-Hall, M. (Ed.) (2007). *Hidden talent: How leading companies hire, retain, and benefit from people with disabilities.* Westport, CT: Praeger Publishers.
- McMahon, B., Wehman, P., Brooke, V., Habeck, R., Green, H., & Fraser, R. (2004). *Business, disability and employment: Corporate models of success*, http://www.worksupport.com/re-search/listFormatContent.cfm/5.
- For people with disabilities who are seeking guidance in the employment search process, see the Job Accommodation Network's Employment Guide at http://www.jan.wvu.edu/job.
- For organizations and programs that create links between businesses and potential employees with disabilities, see the following:
- Just One Break, Inc.: www.justonebreak.com
- National Business and Disability Council: www.nbdc.com
- National Council for Support of Disability Issues: www.peopleresources.org
- HireDS Career Network: www.hireDS.com
- Chesapeake Service Systems: http://css-online.org
- AccessCareers: http://www.washington.edu/doit/Brochures/Careers_project.html
- For additional resources for employers and job seekers with disabilities, see the listing of Web sites by the National Organization on Disability at http://www.nod.org/index. cfm?fuseaction=page.viewPage&pageID=27.

References

- Adya, M. (2004). *Genetic information use in hiring decisions: Psycho-legal possibilities arising from the Human Genome Project*. Unpublished doctoral dissertation, University of Nebraska-Lincoln, Nebraska.
- Adya, M., & Bornstein, B. H. (2005). Genetic discrimination in employment: Psycho-legal possibilities arising from the Human Genome Project. *William Mitchell Law Review* 32: 265–88.
- Baldwin, M. L., & Johnson, W. G. (2006). A critical review of studies of discrimination against workers with disabilities. In W. M. Rodgers III (Ed.), *Handbook on the economics of discrimination*. Northampton, MA: Edgar Elgar Publishing.
- Baldwin, M., & Schumacher, E. (2002). A note on job mobility among workers with disabilities. *Industrial Relations* 41 (3): 430–41.
- Barr, M. A., & Hitt, M. A. (1986). A comparison of selection decision models in manager versus student samples. *Personnel Psychology* 39: 599–617.
- Bell, B. S., & Klein, K. J. (2001). Effects of disability, gender, and job level on ratings of job applicants. *Rehabilitation Psychology* 46: 229–46.
- Blanck, P., Hill, E., Siegal, C., & Waterstone, M. (2003). *Disability civil rights law and policy*. St. Paul, MN: Thomson/West Publishers.
- ——. (2005). *Disability civil rights law and policy: Cases and materials*. St. Paul, MN: Thomson/West Publishers.
- Blanck, P., Hill, E., Siegal, C., Waterstone, M., & Myhill, W. (2006). *Disability civil rights law and policy: Cases and materials.* Supp. to the 1st ed. St. Paul, MN: Thomson/West Publishers.
- Blanck, P. D., & Marti, M. W. (1997). Attitudes, behavior, and the employment provisions of the Americans with Disabilities Act. *Villanova Law Review* 42: 345–410.
- Blanck, P., Schur, L., Kruse, D., Schwochau, S., & Song, C. (2003). Calibrating the impact of the ADA's employment provisions. *Stanford Law & Policy Review* 14: 267–90.
- Blanck, P. D., & Turner, A. N. (1987). Gestalt research: Clinical field research approaches to studying organizations. In J. Lorsch (Ed.), *The handbook of organizational behavior*, 109–25. New York: Prentice-Hall.
- Bordieri, J. E., & Drehmer, D. E. (1986). Hiring decisions for disabled workers: Looking at the cause. *Journal of Applied Social Psychology* 16: 197–208.

- Bowman, J. (1987). Attitudes towards disabled persons: Social distance and work competence. *Journal of Rehabilitation* 53: 41–4.
- Braddock, D., & Bachelder, L. (1994). *The glass ceiling and persons with disabilities*. Washington, DC: U.S. Department of Labor, Glass Ceiling Commission.
- Bruyère, S. (2000). Disability employment policies and practices in private and federal sector organizations. Program on Employment and Disability, Cornell University, March.
- Bruyère, S., Erickson, W., & Ferrentino, J. (2003). Identity and disability in the workplace. *William and Mary Law Review* 44 (3): 1173–96.
- Cesare, S., Tannenbaum, R., & Dalessio, A. (1990). Interviewers' decisions related applicant handicap type and rater empathy. *Human Performance* 3: 157–71.
- Colella, A. (1996). Organizational socialization of newcomers with disabilities: A framework for future research. *Research in Personnel and Human Resources Management* 14: 351–417.
- ——. (2001). Co-worker distributive fairness judgments of the workplace accommodation of employees with disabilities. *Academy of Management Review* 26: 100–16.
- Colella, A., Denisi, A., & Varma, A. (1998). The impact of ratee's disability on performance judgments and choice of partner: The role of disability-job fit stereotypes and interdependence of rewards. *Journal of Applied Psychology* 83: 102–11.
- Cook, T., & Campbell, D. (1979). *Quasi-experimentation: Design and analysis issues for field studies.* Chicago: Rand McNally.
- Cornell RRTC. (2006). 2005 Disability status reports. Ithaca, NY: Rehabilitation Research and Training Center on Disability Demographics and Statistics, Cornell University.
- Dixon, K. A., Kruse, D., & van Horn, C. E. (2003). *Restricted access: A survey of employers about people with disabilities and lowering barriers to work.* New Brunswick, NJ: Heldrich Center for Workforce Development, Rutgers University.
- Drehmer, D. E., & Bordieri, J. E. (1985). Hiring decisions for disabled workers: The hidden bias. *Rehabilitation Psychology* 30: 157–65.
- Fichten, C. S., & Amsel, R. (1986). Trait attributions about college students with physical disabilities: Circumplex analyses and methodological issues. *Journal of Applied Social Psychol*ogy 16: 410–27.
- Fuqua, D. R., Rathbun, M., & Gade, E. M. (1983). A comparison of employer attitudes toward the worker problems of eight types of disabled workers. *Journal of Applied Rehabilitation Counseling* 15: 40–43.

- Gouvier, W. D., Steiner, D. D., Jackson, W. T., Schlater, D., & Rain, J. S. (1991). Employment discrimination against handicapped job candidates: An analog study of the effects of neurological causation, visibility of handicap, and public contact. *Rehabilitation Psychology* 36: 121–29.
- Graffam, J., Shinkfield, A., Smith, K., & Polzin, U. (2002). Factors that influence employer decisions in hiring and retaining an employee with a disability. *Journal of Vocational Rehabilitation* 17: 175–81.
- Hernandez, B., Keys, C., & Balcazar, F. (2000). Employer attitudes toward workers with disabilities and their ADA employment rights: A literature review. *Journal of Rehabilitation* 66: 4–16.
- Hitt, M. A., & Barr, S. H. (1989). Managerial selection decision models: Examination of configural cue processing. *Journal of Applied Psychology* 74: 53–61.
- Holtgraves, T. (2004). Social desirability and self-reports: Testing models of socially desirable responding. *Personality and Social Psychology Bulletin* 30: 161–72.
- Kraus, S. (1995). Attitudes and the prediction of behavior: A meta-analysis of the empirical literature. *Personality and Social Psychology Bulletin* 21: 58–75.
- Krefting, L. A., & Brief, A. P. (1976). The impact of applicant disability on evaluative judgments in the selection process. *The Academy of Management Journal* 19: 675–80.
- Millington, M., Rosenthal, D., & Lott Jr., A. (1997). Employment expectation profiles as a differential measure of employment-related attitudes towards people with disabilities. *Journal of Applied Rehabilitation Counseling* 28: 36–39.
- Neisser, G. (1976). Cognition and reality. San Francisco: W. H. Freeman.
- Pager, D., & Qullian, L. (2005). Walking the talk? What employers say versus what they do. *American Sociological Review* 70: 355–80.
- Ravaud, J., Madiot, B, & Ville, I. (1992). Discrimination towards disabled people seeking employment. *Social Science and Medicine* 35: 951–58.
- Rose, G. L., & Brief, A. P. (1979). Effects of handicap and job characteristics on selection evaluations. *Personnel Psychology* 32: 385–92.
- Rowe, P. (1984). Decision processes in personnel selection. *Canadian Journal of Behavioral Science* 16: 326–37.
- Schur, L., Kruse, D., & Blanck, P. (2006). Corporate culture and the experiences of employees with disabilities. Working Paper. School of Management and Labor Relations, Rutgers University, May.

- Stapleton, D., Wittenburg, D., & Maag, E. (2005). A difficult cycle: The effect of labor market changes on the employment and program participation of people with disabilities. Employment and Disability Institute, Cornell University.
- Stone, D. L., & Colella, A. (1996). A model of factors affecting the treatment of disabled individuals in organizations. *The Academy of Management Review* 21: 352–401.
- Stone, D. L., & Sawatzki, B. (1980). Hiring bias and the disabled interviewee: Effects of manipulating work history and disability information of the disabled job applicant. *Journal of Voca-tional Behavior* 16: 96–104.
- Thomas, L. T., & Thomas, J. E. (1984). The effects of handicap, sex, and competence on expected performance: Hiring and salary recommendations. *Journal of Applied Rehabilitation Counseling* 16: 19–23.

Employee Development for People with Disabilities Employment Issue Brief #2 National Council on Disability

Abstract

People with disabilities can face barriers not only in becoming employed, but in advancing within companies and in their careers after they are employed. Employee development is important both for employees (ensuring that they obtain opportunities to increase their skills and income) and for companies (ensuring that employee talents are fully developed and used). Such development can take place through a variety of programs and methods, including training, mentoring, network-ing, career planning, performance appraisals, and participation in teams and decision making. This issue brief reviews the evidence on employee development, finding that employees with disabilities are generally less likely to be involved in these activities, but a number of companies have initiated special programs aimed at development of employees with disabilities.

Introduction

"People with disabilities are like other employees; they want to do a good job, appreciate constructive supervision, enjoy new challenges and want to get ahead. Businesses that successfully recruit and retain qualified employees maintain a competitive edge in the global marketplace. One way for employers to retain employees is to establish career development plans for all employees, including those with disabilities."³

"Mentoring individuals with disabilities has helped our organization broaden its understanding of disability. You learn that disabilities are not limiting." (Michael Dunbar, Vice President of Public Relations for the Greater Columbus, Georgia, Chamber of Commerce⁴)

"Mentoring [people with disabilities] sends a message to our other employees that the company really does care about people. . . . We have had really good luck with the people we have mentored, and in today's tight labor market, they really fill a void." (Rod Holter, Director of Manufacturing for Cessna Aircraft Company⁵) | IB # 2: E mpl oyee Devel opment

Employee development is a crucial part of career advancement and success. Employee development refers to the process through which, after obtaining employment, employees acquire knowledge and skills that allow them to obtain raises, promotions, and new jobs that lead to higher income, performance, and fulfilling jobs and careers. This process is displayed most clearly by fast-rising "stars" whom companies want to retain and develop because of their high potential for leadership positions, but it also applies to employees who make more modest advancements and stay at lower levels within companies. The activities that can aid employee development include the following:

- Formal training programs
- Informal on-the-job training
- Mentoring
- Networking
- Career planning
- Performance appraisals
- Participation in teams and decision making

Though it is well-known that people with disabilities have low rates of employment, relatively little is known about what happens to people with disabilities after they become employed. Some statistics indicate that employees with disabilities tend to lag behind employees without disabilities in company advancement. They are less likely to be in managerial jobs, to be supervisors, and to have received one or more promotions, as shown by the following statistics from the Census Bureau and company surveys:⁶

| | With disabilities | Without disabilities |
|-----------------------------------|-------------------|----------------------|
| Management or related occupations | 6% | 9% |
| Supervise other employees | 19% | 26% |
| Received one or more promotions | 58% | 63% |

One of the reasons that employees with disabilities are more likely to remain at the lower levels of organizations is that they face attitudinal barriers that limit advancement. A study found the following:

"People do hold clear stereotypes about what types of disabilities lead to poor performance on a given job, and . . . these stereotypes are relied upon for certain personnel decisions, even in light of performance evidence that suggests that these stereotypes are invalid. Employees' disabilities may not influence supervisors' evaluations of their past performance when supervisors have clear objective performance information available. However, bias still exists in expectations for future performance and training recommendations. This bias can have severe long-term consequences on one's career within an organization." (Colella and Varma 1999)

Apart from these attitudinal barriers, there is often uncertainty regarding the abilities and potential of people with disabilities. This fear of the unknown can also lead managers to be reluctant to provide training and other development activities.

To combat these barriers—whether based on uncertainty or biased expectations—a number of companies have made commitments to the development and advancement of employees with disabilities.⁷ This brief reviews the available evidence and discusses several initiatives to enhance employee development among employees with disabilities.

Formal and Informal On-the-Job Training

Training programs are a key means by which employees acquire job-relevant skills that can be directly translated into higher productivity and earnings. The value of training is clear to U.S. companies, which invested \$51.1 billion in formal training in 2005 (Dolezalek 2005). Training is provided to a majority, though not all, of U.S. employees. The most recent nationally representative survey of training in U.S. workplaces found the following in 1995:

- 70% of employees reported receiving some formal training in the past year
- Employees reported an average of 13 hours of formal training, and 31 hours of informal training, in the past six months
- Training costs averaged over \$900 per employee over a six-month period
- Employees with higher levels of education, and in larger establishments, were more likely to get training (Bureau of Labor Statistics [BLS] 1996)

Though there is a large amount of information on the costs and benefits of training for the employee population as a whole, research on training for people with disabilities is more limited.

E MPLOYEE DEVELOPMENT

Most of the disability training research has focused on preemployment vocational rehabilitation: Publicly funded vocational rehabilitation is linked to sustained increases in earnings of participants (Dean and Honeycutt 2005), and several studies of privately funded vocational rehabilitation show positive effects but there has not been a comprehensive evaluation (Berkowitz and Dean 1998).

Very little information is available, however, on training obtained by employees with disabilities after they become employed. Training may be part of accommodations after the onset of a disability: An employer survey found that training programs were involved in 19 percent of requested accommodations (Unger and Kregel 2003). Regarding training in general, recent information from surveys of 39,000 employees in 14 companies indicates that people with disabilities are less likely than those without disabilities to receive training:⁸

| | Employees | Employees |
|--------------------------------------|-------------------|----------------------|
| | with disabilities | without disabilities |
| Any formal training in past year | 47% | 57% |
| If received training, average hours | | |
| of training in past year | 27.2 | 32.7 |
| At least some informal training | | |
| from coworkers | 65% | 73% |
| Frequent job rotation/cross-training | 14% | 11% |

The above numbers show not only that employees with disabilities are less likely to receive formal training, but also that those who do receive training appear to receive fewer hours on average compared with employees without disabilities. They are also less likely to receive informal training from coworkers, which is a concern because informal training not only provides important job skills but also can be a means of building social networks and becoming more integrated into the workplace. Despite these important gaps, employees with disabilities appear slightly more likely to receive one kind of training: job rotation or cross-training that provides an expanded set of skills that enables one to be placed in a wide variety of jobs.

Some companies have set up training programs that either are designed for people with disabilities or make special arrangements to include people with disabilities. These programs are generally oriented toward new employees and may be tied to recruiting and selecting qualified employees. Following are two examples of employers providing training programs to workers with disabilities:

"In 1998, Hyatt Hotels Corporation began offering on-site, reality-based vocational disability training programs in Tampa and Orlando. Hyatt formed a partnership with Hands On Educational Services, directed by John Ficca. On-the-job training was funded through collaboration with the Florida Vocational Rehabilitation Services, Division of Blind Services, Division of Workers' Compensation and the Department of Veterans' Affairs.

"The Culinary Training Program is 100 hours over a two-week period. . . . Trainees become temporary employees of Hyatt and receive a salary in addition to certificates of completion and a state food-handler's certificate, both of which have considerable value in the job market. Trainees are supervised and mentored by the best chefs in the hospitality industry. Both job skills and work adaptive skills are addressed. Uniforms, meals, transportation, and even lodging are provided as needed. Students are rotated through kitchen areas of the Hyatt to learn about all types of food preparation and service. They also learn the language of the kitchen, necessary math skills, and information on safety and disease prevention. Students take five written tests designed for low readers, and their performance is evaluated daily by both Hyatt and Hands On staff. This ongoing evaluation and feedback allow for multiple exit points and the most appropriate permanent job placement for each student.

"Regarding advancement, nearly all Hyatt managers are working managers who began their careers in a service worker occupation: cook, server, chauffer, clerk, or housekeeper. The advancement potential of experienced chefs is exceptionally high in almost all communities across the country." (McMahon et al. 2004)

"Outreach to the community of those with disabilities simply has become part of the culture of the Spokane Home Builders Association, it has become an inherited function, an integral part of the job." (Kim Waseca)

"The Spokane Home Builders Association . . . recruits up to 20 new apprentices [individuals with disabilities] annually. . . . The commitment made to become part of this apprenticeship program involves four years of on-thejob training (approximating 8,000 hours) and 144 hours per year of related supplemental education at Spokane Community College's Apprenticeship and Journeyman Training Center. [The director] has recruited apprenticeship students with such disabilities as low vision, vision loss, neurological conditions, learning disabilities, neuropsychological disabilities, and most recently a deaf student." (McMahon et al. 2004) For examples of how companies work with training providers to produce qualified employees with disabilities, see the "Recruitment and Retention" issue brief.

Mentoring

Mentoring provides employees with one-on-one relationships that can be instrumental in employee development, serving a number of career-oriented functions (McDowall-Long 2004):

Sponsorship: "championing the protégé's suitability for promotions or lateral job changes"

Coaching: "providing information, advice, analysis, and feedback"

Protection: "shielding protégés from internal political struggles or undesirable assignments"

Challenging: "pushing protégés to accept difficult assignments, question their preconceptions, and attain higher levels of performance"

Exposure: "introduc[ing] protégés to their own internal and external networks"

In addition, mentoring can serve a number of "psychosocial functions," including confirmation and acceptance ("affirming and understanding the experiences of the protégé"), counseling, friendship, and role modeling (McDowall-Long 2004).

Mentoring programs are recognized as an important facilitator of building diversity into the pipeline to corporate leadership, and also can benefit organizations by retaining skilled employees and helping maintain the internal culture (Kilian et al. 2005; Parnell 1998). Research has found that mentoring is linked to a number of good career-oriented outcomes for individuals, including higher salaries, better job performance, improved career satisfaction, more rapid promotion rates, higher levels of exposure to senior decision makers, and a more internal locus of control (McDowall-Long 2004). In addition, research has found positive effects on several psychosocial outcomes such as prosocial behavior, interpersonal relationships, and self-esteem (McDowall-Long 2004).

As noted earlier, people with disabilities often face unduly pessimistic expectations about their potential for advancement (Colella and Varma 1999). Mentoring may be of special value for members of groups that historically have faced attitudinal barriers that limit advancement (Ragins 1997), including people with disabilities:

"The mentoring process can help break down employment barriers by encouraging individuals with disabilities to take a more active role in planning and pursuing their careers. Conducting mentoring programs provides employers with access to new talent and an often underutilized workforce. It also promotes greater awareness and understanding of disability in the workplace."⁹

The value of mentoring for an employee with a disability may be greater when the mentor also has a disability:

"Mentors with disabilities can help protégés gain a greater understanding of the work environment [and] coping strategies, and encourage protégés to self-actualize with a degree of authenticity that able-bodied mentors cannot. Moreover, mentors with disabilities can engage in mutual disclosure regarding the challenges and opportunities that both confront and confound individuals with disabilities." (McDowall-Long 2004, 526)

Mentors without disabilities can, however, also play a valuable role, and may be perceived by employees with disabilities as better connections to the corporate culture:

"If a mentor with similar challenges is not available for a prospective protégé with disabilities, able-bodied mentors can still serve to help the protégé gain organizational exposure and challenging work assignments as well as provide friendship, confirmation and acceptance." (McDowall-Long 2004, 527)

There is, however, little information on the extent or effects of mentoring for employees with disabilities:

- A 1999 survey of employers found that 59 percent rated mentoring as "effective" or "very effective" for reducing barriers to employment or advancement for people with disabilities in their organizations (Bruyère 2000).
- Supported employment practices and "natural support interventions" from coworkers, both of which generally include mentoring as a key component, have been found to be successful in helping establish people with disabilities in competitive employment (Storey 2003; Hanley-Maxwell, Owens-Johnson, and Fabian 2004; Cook and O'Day 2006).

Outside of the employment context, mentoring is often done with youths, and the research on mentoring of students with visual impairments was found to broaden their career potentials; in addition, mentoring has been shown to have a number of positive effects on the attitudes and

knowledge of youths with disabilities and how they are perceived by their parents (Powers, Sowers, and Stevens 1995; Wolffe 1999).

A disability mentoring system was recently initiated by employees with disabilities at the global financial firm Barclays, based in England (Suff 2006). The scheme focuses on building a pool of trained mentors who are available to employees with disabilities "if they want to get ahead in their career, develop their skills or if they 'just need someone to talk to." The CEO gave high priority to the project and serves as a mentor himself. Employees can apply to have a mentor, and are matched using a detailed database of potential mentors. The scheme, which is still in its infancy, has both quantitative and qualitative evaluation built in. The executive in charge notes the following:

"The [mentoring] scheme has had a very strong response so far and has the clear endorsement of all the Barclays businesses, including our fund management arm and investment bank. The scheme contributes to our diversity agenda and, ultimately, to the success of the group." (Suff 2006, 20)

Networking

Whereas mentoring provides valuable one-on-one interaction, networking provides employees with a broader circle of contacts that can be a source of useful information and support. Networking often occurs informally, but a growing number of large companies have provided encouragement and support for employee networks or affinity groups based on shared background characteristics of the employees. Research on minority network groups shows that they are linked to lower turnover of managerial-level minority employees, concluding the following:

"As firms wage the war to attract and retain top minority talent, it appears that the relatively low cost of supporting employee network groups provides a significant return." (Friedman and Holtom 2002, 418)

Several of the New Freedom Initiative Award winners have affinity groups for employees with disabilities: Microsoft, IBM, Hewlett Packard, and Dow Chemical.¹⁰ There are three disability affinity groups at Microsoft: for people who are deaf or hard-of-hearing, have attention deficit disorders, or are visually impaired. As described in Lengnick-Hall (2007, 74-75):

"These groups provide support and networking opportunities for people with disabilities such as: mentoring, college recruiting, working in the community, career development, and cultural awareness. Each group has an executive sponsor. Additionally, each employee group has connections with community groups that are advocates for people with disabilities. Besides providing social and career support for employees with disabilities, employee groups also help with accessibility and testing of Microsoft products."

Like Microsoft, Hewlett Packard has employee support groups for different types of disabilities (physical, intellectual, and emotional), but it also has a more general support group that is open to friends and family members of people with disabilities. One of these support groups is described by a long-time employee who lost his sight:

"Bill . . . came back to work with the company and since then has worked very hard to help accommodate workers with disabilities—the visually impaired in particular. Bill explains that this resource group, which is not limited to people with disabilities, has proved to be very useful and supportive for those workers that do have disabilities. 'We kind of just help each other and discuss challenges we might have and how we can work around some of these challenges. Our goal is to try to bring in speakers to help us learn, not necessarily just about disabilities, but also just how to be better professionals at work, just like any employees. We discuss those things as well as how to better do our jobs and pursue our career just like any other employee.'" (Lengnick-Hall 2007, 40–41)

These groups not only may provide support to employees with disabilities but can be the basis for community outreach. At Nike, for example:

"The Disabled Employees and Friends Network (DEN) [has] a 'mission to add value and enrich Nike and the community in which it operates for more inclusion and full utilization of employees with disabilities.'. . . DEN is truly unique in as much as this vibrant group involvement is solely based on the interest of employees and the awareness activities, such as the campuswide wheelchair race for individuals without disabilities, and is on the cutting edge in terms of disability awareness programs. It also provides a supportive employee base for larger outreach and innovation activities in the local community on the part of corporate management." (McMahon et al. 2004)

Career Planning

Career development is influenced by many factors, including individual characteristics (e.g., abilities, interests, values), context (e.g., education, family background), work environment (e.g., organizational structures and accommodations), and the beliefs, habits, or behavior patterns that may result from these other factors (e.g., feelings of self-efficacy) (Szymanski et al. 2004). Career development can be enhanced by career planning activities. Among people with disabilities, "the results of virtually all intervention studies have supported the efficacy of a variety of career programs," including positive effects of career decision-making workshops for students with disabilities. (Szymanski et al. 2004, 131)

Some companies have actively sponsored or supported career-planning programs. For example, as described in Lengnick-Hall's 2007 book, the Marriott Corporation, through the Marriott Foundation for People with Disabilities, has a Bridges and Bridges Plus program to prepare youths with disabilities for the workforce. In the Bridges Plus program each youth has the following:

- "Career Development Plan which guides all activities for two years and employs 90-day reviews and action planning to assure progress toward vocational goals."
- "Career Preparation Curriculum . . . [which] contains essential competencies for career development, self-advocacy, and successful employment," and
- "Employer representative . . . [who] provides mentoring, support services, and family training." (Lengnick-Hall, 2007, 80–81)

Apart from such programs for youths, many companies provide career assessment and planning services to employees. For employees with disabilities, this can be especially useful as part of the accommodations process after the onset of a disability. One example is provided by Alaska Airlines, described below:

"For a worker with disability onset, there is an aggressive effort made to maintain the individual on a job in their own work unit or in the company. . . . Some individuals are sent to Alaska Airline's Career Assessment unit for vocational assessment; this can be outsourced if necessary. Job analyses have been done for each physically demanding job by an external rehabilitation counseling company. Following career assessment, retraining may be a n option in areas such as customer service specialist, flight attendant, or reservations.

"External consultation is quite common, particularly in relation to utilization of an ergonomics specialist. There also has been an effort to provide career mobility for personnel such as reservation agents with blindness. External contractors specializing in blindness have been utilized in order to brainstorm/improve accommodations that would enable upward mobility for individuals with significant sight impairments." (McMahon et al. 2004)

Performance Appraisals

Regular performance appraisals are a key means by which companies assess employees. The appraisals can play both an evaluative role (helping determine employee compensation and suitability for promotions) and a developmental role (providing feedback to the employee to help him or her improve). As such, they can be very important in developing employee skills and advancement in the organization (Cook and Cripps 2005; London 2001; Hedge, Borman, and Lammlein 2006).

There is very limited information on performance appraisals for people with disabilities. Recent employee surveys show that employees with disabilities appear to be as likely as those without disabilities to receive written performance evaluations, but they appear less likely to perceive that they receive meaningful feedback:¹¹

| | Employees | Employees |
|------------------------------------|-------------------|----------------------|
| | with disabilities | without disabilities |
| Received written performance | | |
| evaluation in past year | 79% | 79% |
| Perceived "meaningful feedback" on | | |
| performance in past year | 51% | 60% |

Though performance appraisals have not been the specific focus of any company programs for employees with disabilities, performance feedback is often incorporated into the mentoring programs discussed above.

IB # 2: Employee Development

Participation in Teams and Decision Making

Over the past several decades there has been an increase in the number of U.S. employees participating in teams and decision making at work. Such participation can build employee skills and social networks at work, increasing opportunities for advancement and promotion. The research on employee involvement in decision making shows that it often improves employee skills along with workplace productivity, employee wages, and job satisfaction (Handel and Levine 2006).

These types of skill-building participation appear to be less common among employees with disabilities, as shown in the following statistics from company surveys:¹²

| | With disabilities | Without disabilities |
|--|-------------------|----------------------|
| Work as part of a team | 53% | 60% |
| Have a lot of participation in: | | |
| How you do your job | 38% | 52% |
| Setting goals for your workgroup or department | 16% | 22% |

No company programs could be identified that specifically try to increase the involvement of employees with disabilities in teamwork and decision making, although many of the company initiatives described above on training, mentoring, and networking will help employees gain jobs with greater participation in these skill-building activities.

Additional Resources

For more information and resources on employee development for people with disabilities, readers should consult the following:

Career development for people with disabilities, at http://www.communityoptionsonline.org/ resources/employ_careerdev.htm.

- Lengnick-Hall, M. (Ed.). (2007). *Hidden talent: How leading companies hire, retain, and benefit from people with disabilities.* Westport, CT: Praeger Publishers.
- Szymanski, E. M., & Parker, R. M. (Eds.). (2004). Work and disability: Issues and strategies in career development and job placement. Austin, TX: Pro-Ed.
- Unger, D., Kregel, J., Wehman, P., & Brooke, V. *Employers' views of workplace supports: VCU Charter Business Roundtable's national study of employers' experiences with workers with disabilities,* at http://www.worksupport.com/research/viewContent.cfm/156.

References

- Berkowitz, M., & Dean, D. (1998). Facilitating employment through vocational rehabilitation. In T. Thomason, J. F. Burton Jr., & D.E. Hyatt (Eds.), *New approaches to disability in the work-place*. Madison, WI: Industrial Relations Research Association.
- Bruyère, S. (2000). *Disability employment policies and practices in private and federal sector organizations*. Ithaca, NY: Cornell University, School of Industrial and Labor Relations Extension Division, Program on Employment and Disability.
- Bureau of Labor Statistics (BLS). (1996). 1995 survey of employer-provided training— Employee results. News release, USDL 96-515. U.S. Bureau of Labor Statistics, December 19.
- Cook, J. A., & O'Day, B. (2006). *Supported employment: A best practice for people with psychiatric disabilities.* Policy Brief. Rehabilitation Research and Training Center on Employment Policy for Persons with Disabilities, Cornell University.
- Cook, M., & Cripps, B. (2005). *Psychological assessment in the workplace: A manager's guide*. New York: John Wiley & Sons Ltd.
- Dean, D., & Honeycutt, T. (2005). *Evaluating the long-term employment outcomes of vocational rehabilitation participants using survey and administrative data*. Final Report to Disability Research Institute, University of Illinois at Urbana-Champaign.
- Dolezalek, H. (2005). *Training Magazine's* exclusive analysis of employer-sponsored training in the United States. *Training* (December): 14–28.
- Friedman, R., & Holtom, B. (2002). The effects of network groups on minority employee turnover intentions. *Human Resource Management* 41 (4): 405–21.
- Handel, M., & Levine, D. (2006). The effects of new work practices on workers. In E. E. Lawler and J. O'Toole (Eds.), *America at work: Choices and challenges*, 73–86. New York: Palgrave-MacMillan.

- Hanley-Maxwell, C., Owens-Johnson, L., & Fabian, E. (2004). Supported employment. InE. M. Szymanski and R. M. Parker (Eds.), *Work and disability: Issues and strategies in career development and job placement*. Austin, TX: Pro-Ed.
- Hedge, J. W., Borman, W. C., & Lammlein, S. E. (2006). Training, performance management, and career management. In J. W. Hedge, W. C. Borman, & S. E. Lammlein (Eds.), *The aging workforce: Realities, myths, and implications for organizations,* 137–54. Washington, DC: American Psychological Association.
- Kilian, C. M., Hukai, D., & McCarty, E.C. (2005). Building diversity in the pipeline to corporate leadership. *Journal of Management Development* 24 (2): 155–68.
- Lengnick-Hall, M. (2007). *Hidden talent: How leading companies hire, retain, and benefit from people with disabilities.* Westport, CT: Praeger Publishers.
- London, M. (Ed.) (2001). *How people evaluate others in organizations*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- McDowall-Long, K. (2004). Mentoring relationships: Implications for practitioners and suggestions for future research. *Human Resource Development International* 7 (4): 519–34.
- McMahon, B., Wehman, P., Brooke, V., Habeck, R., Green, H., & Fraser, R. (2004). Business, disability and employment: Corporate models of success. Virginia Commonwealth University RRTC on Workplace Supports and Job Retention, http://www.worksupport.com/research/list-FormatContent.cfm/5.
- Parnell, J. A. (1998). Improving the fit between organizations and employees. *SAM Advanced Management Journal* 63 (1): 35–43.
- Powers, L. E., Sowers, J., & Stevens, T. (1995). An exploratory, randomized study of the impact of mentoring on the self-efficacy and community-based knowledge of adolescents with severe physical challenges. *The Journal of Rehabilitation* 61.
- Ragins, B. R. (1997). Diversified mentoring relationships in organizations: A power perspective. *Academy of Management Review* 22 (2): 482–521.
- Schur, L., Kruse, D., Blasi, J., & Blanck, P. (2006). Corporate culture and the experiences of employees with disabilities. Working paper. School of Management and Labor Relations, Rutgers University.
- Storey, K. (2003). A review of research on natural support interventions in the workplace for people with disabilities. *International Journal of Rehabilitation Research* 26 (2): 79–84.

- Suff, R. (2006). Unlocking potential: Barclays' disability mentoring scheme. *IRS Employment Review* (March 24): 17–20.
- Szymanski, E. M., Enright, M. S., Hershenson, D. B., & Ettinger, J. M. (2004). Career development theories, constructs, and research: Implications for people with disabilities. In E. M. Szymanski & R. M. Parker (Eds.), *Work and disability: Issues and strategies in career development and job placement*, 91–154. Austin, TX: Pro-Ed.
- Unger, D., & Kregel, J. (2003). Employers' knowledge and utilization of accommodations. *Work* 21 (1): 5–15.
- Unger, D., Kregel, J., Wehman, P., & Brooke, V. (2002). *Employers' views of workplace supports: VCU Charter Business Roundtable's national study of employers' experiences with workers with disabilities*.http://www.worksupport.com/research/viewContent.cfm/156
- Wolffe, K. (1999). Using role models in career exploration for students with visual impairments. *Journal of Visual Impairment and Blindness* 93 (12): 798–801.

Work-Life Balance and Alternative Work Arrangements for People with Disabilities Employment Issue Brief #3 National Council on Disability

Abstract

Many companies use policies and programs designed to improve the work-life balance of their employees. With these programs, employers seek to accommodate the personal and family needs of all employees, often combining them to help create a "culture of flexibility." Some of the programs have particular value for people with specific disabilities and limitations. This issue brief reviews the evidence on and issues regarding work-life programs as they relate to disability, focusing on a) part-time work/job sharing, b) flexible schedules, c) temporary employment, and d) telecommuting and other home-based work. Each of these, except flexible schedules, is found to be more common among employees with disabilities. One conclusion is that a culture of flexibility that is responsive to the needs of all employees—where accommodations are seen as standard rather than the exception—may be especially valuable for people with disabilities and enhance their employment opportunities.

Introduction

Work-life programs have been used increasingly by U.S. employers in the past two decades to address the many ways in which personal and family issues can affect employee experiences and performance at work (Bond et al. 2005). These issues arise as individuals try to balance their work roles with their spousal, parental, caregiver, and other roles. The increased use of these programs is driven in part by the aging of the workforce and the continued growth of dual-earner families and single-parent households. Traditional jobs that do not take account of these changes run the risk of increasing worker stress, absenteeism, and turnover and decreasing employee productivity. Companies often use work-life programs to recruit and retain employees and enhance productivity and commitment.

A wide variety of employer programs and policies have been used to address issues of work-life balance. The most common ones can be categorized as follows:

- Part-time work/job sharing
- Flexible schedules
- Temporary employment
- Telecommuting and other home-based work
- Leaves of absence
- Child/elder care assistance
- Employee Assistance Programs (EAPs)
- Health care and health promotion

Employers may combine a number of these policies and programs to create a "culture of flexibility" that emphasizes personalized attention to the needs of all employees, as opposed to a bureaucratic culture based on impersonal rules and procedures (Bond et al. 2005; Schur, Kruse, and Blanck 2005).

The fundamental idea of work-life balance—paying greater attention to the personal and family needs of employees—is very relevant for many employees with disabilities. Like all workers, those with disabilities have many personal and family needs that must be reconciled with work responsibilities. People with mobility impairments, for example, can face transportation problems that increase the attractiveness of flexible schedules or home-based work. Some disabilities are associated with an increased need for medical or physical therapy appointments, or with greater physical demands or time spent on self-care, that makes a standard full-time schedule difficult to manage.

This brief summarizes the evidence and issues surrounding work-life programs and policies as they affect employees with disabilities. It should be kept in mind that these programs and policies are designed for all employees, and their benefits for employees with disabilities are only one part of the benefits they may have for employees in general.

Part-Time Work/Job Sharing

Almost all businesses have some part-time employees, and a 2005 survey of U.S. employers found that nearly half (46%) have explicit job-sharing programs for at least some employees (Bond et al. 2005). Part-time work has lower demands on time and energy than does full-time

work, making it attractive for many caregivers and those with other personal and family concerns. It is often the most appropriate type of employment for many people with disabilities. Schur (2003) describes two people she interviewed:

> "A woman who was born with a balance disorder works in a local grocery store for only 10 hours per week due to fatigue ('I couldn't work a bunch more hours. I'm pretty exhausted when I get home from work')."

"Another man with schizophrenia said that the pressure in his prior full-time computer job brought on schizophrenic episodes, and that his current job as a gas station cashier allows him to avoid stress and control the effects of his illness."

Part-time work can also be part of a transition to full-time employment after an illness or injury:

"A man who broke his back in a work accident . . . said that he eventually was able to return to a full-time managerial job because his employer gave him a part-time schedule when he first came back to work: 'Part time work was a good way to make the transition. If I worked for another type of employer they wouldn't have taken me back. There's a good chance that I'd [still] be out on disability.""

However, not all part-time workers with disabilities prefer to work part-time. Just over one-fourth (29%) say that they would rather be working full-time, which is slightly higher than the one-fourth of part-time workers without disabilities (25%) who would prefer this (Schur 2002a, 608). Two factors that can constrain people with disabilities to part-time work are monthly earnings limitations specified by disability income programs (particularly the public programs, Social Security Disability Insurance and Supplemental Security Income) and employer discrimination or reluctance to hire people with disabilities into full-time jobs, thereby restricting them to part-time jobs.

The data clearly shows that employees with disabilities are more likely than those without disabilities to work in part-time jobs. The rates are especially high among those with difficulty getting around outside the home:¹³

Percentage of employees working

| | fewer than 35 hours/week |
|-------------------------------------|--------------------------|
| Without disability | 18.0% |
| With disability | |
| All | 27.0% |
| Vision or hearing impairment | 22.5% |
| Physical impairment | 26.6% |
| Mental impairment | 37.1% |
| Difficulty inside the home | 31.3% |
| Difficulty getting around outside t | he home 39.8% |
| Work limitation | 37.1% |

Higher rates of part-time work among employees with disabilities are also found by Schur (2003) and Hotchkiss (2004b). Though monthly earnings limitations and employer discrimination play some role, Schur finds the principal explanation to be that part-time work appears to be preferred by many people with disabilities. Hotchkiss finds, however, that higher monthly earnings limitations and increased availability of Medicaid health insurance help explain a rise in part-time employment in the 1990s among those reporting work disabilities. There is no evidence on the number of people with disabilities who are part of explicit job-sharing programs.

From the employer's perspective, part-time employment can be a useful way to tap into a labor pool that is not available for full-time work. A key disadvantage for the employer is that any training investments will take longer to pay off for part-time employees, helping explain why part-time employees are less likely to receive employer-sponsored training (Frazis et al. 1998). From the employee's perspective, part-time work has the advantage of lower demands on time and energy, but it also has the disadvantages of generally lower pay when compared with full-time employment (10% less per hour on average) and a much lower likelihood of receiving employer benefits (particularly employer health insurance and pension coverage) (Schur 2002a, 608).

Flexible Schedules

Flexible schedules provide employees with greater control over their work hours. Greater flexibility can take one of two forms:

- A schedule in which the worker has some discretion over when to start and stop work each day
- A schedule that is chosen or designed in part by the employee to meet personal needs and remains fixed each week (e.g., evening or night shifts, or compressed work weeks)

The 2005 survey of U.S. companies (Bond et al. 2005) shows that many employers allow at least some employees to

- Periodically change starting and quitting times (68%)
- Change starting and quitting times on a daily basis (34%)
- Have control/choice over which shifts they work (39%)
- Have control over paid and unpaid overtime hours (28%)
- Work a compressed work week for at least part of the year (39%)

Just as such schedules can benefit caregivers by making it possible for them to meet the needs of dependents (e.g., enabling them to pick children up after school or to take children to doctor's appointments when needed), flexible schedules allow employees with disabilities the latitude to accommodate both expected appointments (e.g., weekly physical therapy) and unexpected events (e.g., transportation or medical difficulties). Despite these potential benefits, the evidence indicates that employees with disabilities are not much more likely to work in flexible or nonstandard schedules. Following are comparisons for 2001:¹⁴

| | Without work disabilities | With work disabilities |
|-----------------------------|---------------------------|------------------------|
| Standard daytime schedule | | |
| (between 6 a.m. and 6 p.m.) | 81.9% | 79.1% |
| Flexible hours (can choose | | |
| when to begin and end work) | 31.1% | 32.4% |
| Part of flextime program | 11.7% | 12.1% |

Likewise, Presser and Altman (2002) find no significant differences between the schedules of workers with and without disabilities.

Part-time and flexible schedules can be a type of reasonable accommodation for an employee with a disability, if those schedules allow the essential job functions to be performed and do not impose an undue hardship on the employer. The Equal Employment Opportunity Commission (EEOC) provides guidance at http://www.eeoc.gov/types/ada.html, and free advice on designing and implementing reasonable accommodations is available at http://www.jan.wvu.edu.

Temporary Employment

Temporary jobs allow workers a means of gainful employment without substantial investments in a particular job or employer, and with greater flexibility in deciding whether and when to work. One prominent form of temporary work is through a temporary employment agency—this industry has grown substantially in the past two decades as firms have sought ready supplies of skills for pressing workplace demands. More broadly, temporary employment also encompasses on-call and day labor, and other jobs that are not expected to last long.

In addition to the greater flexibility of temporary employment, such jobs can be a way of testing one's abilities and interests in alternative work environments, and "auditioning" for permanent jobs when openings arise. Temporary employment may also be a way for people with disabilities to ease their transition into work after an injury or illness. The following stories, from a study of Manpower Inc., illustrate the benefits that temporary employment can have for people with disabilities abilities and their employers (Blanck and Steele 1998):

"An accident in the military resulted in the amputation of Greg Alden's right arm. . . . [Despite having an associate degree in micro-computers,] Greg spent the next several months applying for jobs in his field but had no luck. . . . [A temporary agency assessment] indicated that Greg had exceptional computer skills. . . . At his job [obtained through a temporary agency,] Greg is responsible for testing educational software that is designed for children. 'My disability is not a factor. . . . Even when there was a cutback in the number of temporaries on this assignment, I remained on the job,' he says. 'I like the work, I'm paid well, and I find it interesting and challenging.'"

"My disability is spinal muscular atrophy,' says Rico Arenas, 'but my being in a wheelchair has not been a barrier to employment with Manpower.' Rico held a series of long-term job assignments with Manpower [which] included administrative assistant positions and jobs with a bank and security company. Rico is currently working on a long-term assignment with the Postal Service headquarters performing database management. 'Rico's performance reviews have been excellent from all the accounts where he has worked.'... Rico has requested no workplace modifications at his job assignments ... [but] was provided a parking spot close to the Postal Service building."

"Valerie Meyer graduated from college with an associate degree in business management and marketing. But Valerie [who uses a wheelchair] found it difficult to find employment. [After several temporary assignments,] Valerie was hired as a permanent customer service representative. Her supervisor said 'Valerie was one of 60 people that Manpower provided us for the particular project that we had. We knew that when the project ended we were going to hire one person. After observing Valerie's work, we knew that she was the right person for the job.""

"Zach Freeman, who is blind, wanted packaging and assembly work. [In his job obtained through a temporary agency,] Zach requested no accommodations . . . [and] uses the same shrink wrap and taping machines used by his coworkers who are not blind. Zach uses his seeing eye dog to help him with mobility around the plant. [His supervisor] says that Zach gets along well with his coworkers. 'He has a good work ethic and a great attitude.'"

The evidence indicates that people with disabilities are about twice as likely as those without disabilities to be in temporary jobs. The following comparisons are from 2001 (Schur 2002a, 2003):

| | Without disability | With disability |
|-----------------------------------|--------------------|-----------------|
| Percentage of all workers who are | | |
| Temporary help agency employees | 0.8% | 2.0% |
| On-call and day laborers | 1.6% | 3.4% |
| Employees expecting job to last | 3.3% | 7.2% |
| for "limited time" | | |
| Percentage of permanent full-time | 4.1% | 7.9% |
| employees who previously worked | | |
| for currenemployer as temporary | | |
| worker or contractor | | |

The final row, showing that permanent full-time employees with disabilities are more likely than those without disabilities to have started working with their current employer as a temporary or contract worker, supports the idea that these jobs can be an important part of a transition to permanent employment for people with disabilities.

There are, however, downsides to temporary employment for employees apart from the lack of job security. About one-fourth of temporary employees say that they are in a temporary job because it is the only type of work they could find; in addition, about three-fifths say they would prefer a standard job (Schur 2002a, 2003). Like part-time employees, temporary employees earn less than do permanent employees (10% less per hour on average), and are much less likely to receive health insurance or pension coverage from the employer.

There are several legal issues regarding Americans with Disabilities Act (ADA) coverage for workers with disabilities hired through temporary agencies. One important issue concerns the provision of reasonable accommodations, which the temporary agency is required to make for the application process but both the temporary agency and client firm are required to make for the job. Guidance from the EEOC is provided at http://www.eeoc.gov/policy/docs/guidance-contingent.html and http://www.eeoc.gov/policy/docs/qanda-contingent.html.

Telecommuting and other home-based work

The rapid development in computer and information technologies over the past 25 years has made home-based work more productive and attractive to both employers and employees. The 2005 survey of U.S. employers found that about one-third allow at least some employees to work part of the work week at home occasionally (34%) or on a regular basis (31%). Only 3 percent, however, allow this option to most or all employees.

Home-based work can help accommodate the needs of a wide range of employees, including those both with and without disabilities. It may have special benefits for people with mobility impairments who find it difficult or costly to travel outside the home, for those who may need to take frequent breaks from work, and for those who must remain close to medical equipment at home. The advantages are illustrated in two stories from a *New York Times* article (Tahmincioglu 2003):

"Many disabled workers say they consider telecommuting to be the single most important factor enabling them to work. Robert O'Byrne, a senior applications specialist for New York Life and a quadriplegic, said he would be on public assistance if his employer had not allowed him to work from home. Mr. O'Byrne, 41, who taught himself programming, goes to the office for occasional meetings, driven there by his father in a specially equipped van. But, he said, the hour-and-a-half commute from his home in Wyckoff, N.J., to the company's offices in Manhattan, would be too exhausting. The job at New York Life 'gave me a sense of purpose,' he said."

"Janet Pearce, a producer at NBC News, was diagnosed with muscular sclerosis nearly a decade ago. But she has rarely missed a day of work even as her illness has progressed, making her unable to walk. A vital reason she has remained gainfully employed is telecommuting. About two years ago, NBC gave Ms. Pearce the option of working at home when she needed to, and today she splits her time, spending three days a week at the office and two at home. After 36 years at NBC, Ms. Pearce said she could not imagine leaving her job, even when she found herself overwhelmed by her disease, her medical appointments, the physical therapy and the adjustment to a wheelchair."

These stories do not appear to be isolated. As shown below, though only a small share of workers with disabilities are doing home-based work, they are more likely than workers without disabilities to be doing so:¹⁵

| | Among employees | Among all workers |
|--|-----------------|-------------------|
| Usually work at home (2005) | | |
| Without work disability | 1.5% | 3.5% |
| With work disability | 1.9% | 4.9% |
| Vision or hearing impairment | 1.8% | 4.6% |
| Physical impairment | 2.3% | 5.7% |
| Mental impairment | 1.7% | 4.2% |
| Difficulty inside the home | 2.7% | 6.8% |
| Difficulty getting around outside the | home 3.3% | 7.2% |
| Work limitation | 3.0% | 7.3% |
| Any paid home-based work (2001) | | |
| Without work disability | 3.7% | 8.4% |
| With work disability | 4.5% | 12.7% |
| Any paid home-based work with computer (| (2001) | |
| Without work disability | 3.0% | 6.0% |
| With work disability | 3.4% | 6.7% |

Mobility difficulties appear to be a key factor in home-based work, given that the rate among employees is highest among those with difficulty getting around outside the home (3.3%, or more than twice the 1.5% rate for employees without disabilities). Two other findings are noteworthy. First, the last two rows show that the rate of home-based work with computers is higher among workers with disabilities than among those without disabilities. This indicates the special value that computer skills and training can have for people with disabilities (Krueger and Kruse 1995). Second, the column on the right shows higher rates of home-based work when the self-employed are included. People with disabilities are both more likely to be self-employed and more likely to be working at home if self-employed (see the "Self-employment and Entrepreneurship" issue brief for more on this topic).

There are several advantages of home-based work from the employer's perspective: being able to tap into a labor pool that is not available for onsite work; possible savings on office space and equipment; being able to meet transportation demand management guidelines or regulations; and having possibly more motivated and loyal employees. The disadvantages for the employer can include increased difficulty in monitoring quality of work, and possible increased costs in providing necessary equipment at home. For the employee, the advantages of flexibility and reduced transportation expense must be balanced against the reduction in social interaction at work, possibly reduced chances for training and promotion, and difficulties in drawing a boundary between work and family life.

Working at home can be a reasonable accommodation under the ADA for some employees with disabilities, but workers with disabilities are not automatically entitled to work at home. The reasonableness of home-based work as an accommodation depends on whether the disability necessitates work at home and whether the essential job functions can be performed at home. The factors to consider are discussed by the EEOC at http://www.eeoc.gov/facts/telework.html.

Other Work-Life Balance Policies and Programs

The remaining categories of work-life programs are described only briefly—they help to illustrate the variety of ways in which companies seek to accommodate personal and family needs for employees in general, but there is little information on the extent to which employees with disabilities are covered.

Leaves of absence:

The Family and Medical Leave Act requires that employers with 50 or more employees provide at least 12 weeks of unpaid leave for childbirth, adoption, and caring for serious medical conditions. The 2005 survey of U.S. employers found that employers provide an average of 14.5 to 16.7 weeks of job-guaranteed leave for the birth or adoption of a baby, or the serious illness of a family member (Bond et al. 2005). Almost half (46%) of those allowing maternity leave provide at least some replacement pay for women, while 13 percent do so for paternity leave by men. A concern of many employees is that taking leave will jeopardize their chances for advancement. Only 9 percent of the employer representatives feel that that this occurs, in contrast to 39 percent of employees who feel that way (Bond et al. 2005, 13).

For disability-related leave, the employer survey found that 58 percent of small employers and 80 percent of large employers offer temporary disability insurance (TDI) coverage. Over three-fourths (78%) of those that offer TDI provide disability pay as part of the benefit.

Child/elder care assistance:

Companies can offer employees a variety of types of assistance for the care of children and elders, including Dependent Care Assistance Plans allowing pretax contributions (offered by 45% of employers), assistance in locating child care (34%) and elder care (29%), onsite child care (7%), back-up or emergency care for children (6%), and educational and recreational programs for teenagers (7%) (Bond et al. 2005, 15–17).

Employee Assistance Programs:

Close to two-thirds (66%) of employers provide EAPs to help their employees deal with personal and family issues. In addition, one-fifth (21%) provide workshops on parenting, elder care, or work/family problems (Bond et al. 2005, 19).

Health care and health promotion:

Among respondents to the 2005 U.S. employer survey, 95 percent reported having health insurance for full-time employees, and 88 percent have health insurance that covers family members (Bond et al. 2005, 23). Only a minority (37%) provide full or prorated health insurance for part-time employees, whereas nearly half (47%) provide some sort of "wellness program" for employees and their families (e.g., gym facilities).

Creating a Culture of Flexibility

A number of studies point toward good effects of work-life programs on productivity, absenteeism, and other outcomes (e.g., Appelbaum et al. 2004; Corporate Leadership Council 2000, 2003; Klaus 1997; Konrad and Mangel 2000; Shepard, Clifton, and Kruse 1996). Apart from the effects of specific policies, there may be synergistic value in combining work-life policies to create a culture that is widely perceived as sensitive to the individual needs of employees. Data from a large 2002 survey of employees shows that

- Almost one-third (31%) of employees in large companies perceive high workplace support for a culture of flexibility, compared with one-fifth (18%) of employees in small companies.
- At the other extreme, one-sixth (16%) of employees in large companies perceived low support for a culture of flexibility, compared with one-fourth (26%) of employees in small companies (Bond et al. 2005, 8–9).

Cultures of flexibility have undoubted value for all employees, and may be especially valuable for employees with disabilities. In bureaucratic cultures with impersonal application of rules and procedures, exceptions in the form of accommodations can be difficult to make and may generate resentment among fellow workers. In contrast, where work-life programs are extensively used to create a culture of flexibility, accommodations to the needs of all employees become the norm, and disability accommodations do not stand out as exceptions. (These ideas are further discussed in the "Corporate Culture" issue brief.)

Conclusion

A growing number of companies are adopting work-life policies and programs, and employees with disabilities are especially likely to use three of them: part-time work/job sharing, temporary employment, and telecommuting/other home-based work. Though these arrangements have a variety of costs and benefits for both employers and employees, the evidence to date is that such arrangements can improve performance, worker incomes, and other outcomes. Companies may especially benefit by combining a number of these programs to create a culture of flexibility that is sensitive to the personal and family needs of all employees.

References

- Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. (2004). Organizations and the intersection of work and family: A comparative perspective. In P. Thompson, S. Ackroyd, P. Tolbert, & R. Batt, *The Oxford handbook on work and organizations*, 52-73. London: Oxford University Press.
- Blanck, P. D., & Steele, P. (1998). *The emerging role of the staffing industry in the employment of persons with disabilities: A case report on Manpower Inc.* University of Iowa Law, Health Policy, and Disability Center.
- Bond, J. T., Galinsky, E., Kim, S. S., & Bownfield, E. (2005). *2005 National study of employers*. New York: Families and Work Institute.
- Corporate Leadership Council. (2000, February). *Work life balance policies in support of innovative cultures.* Catalog No. 070240550.
- —. (2003, October). Maintaining a work-life balance in the professional services industry.
 Catalog No. CLC118WIWT.
- Frazis, H., Gittleman, M., Horrigan, M., & Joyce, M. (1998, June). Results from the 1995 survey of employer-provided training. *Monthly Labor Review* 121 (6).
- Hotchkiss, J. (2004). Growing part-time employment among workers with disabilities: Marginalization or opportunity? *Economic Review*, Federal Reserve Bank of Atlanta, Third Quarter, 1–16.
- Klaus, L. A. (1997, November). Work-life programs help reduce employee absenteeism. *Quality Progress* 30 (11).

- Konrad, A. M., & Mangel, R. (2000, December). The impact of work-life programs on firm productivity. *Strategic Management Journal* 21 (12): 1225–39.
- Krueger, A., & Kruse, D. (1995, October). *Labor market effects of spinal cord injuries in the dawn of the computer age*. National Bureau of Economic Research Working Paper No. 5302.

Presser, H. B., & Altman, B. (2002). Work shifts and disability: A national view. *Monthly Labor Review* 125 (9): 11–24.

- Schur, L. (2002a, December). Dead-end jobs or a path to economic well-being? The consequences of non-standard work for people with disabilities. *Behavioral Sciences and the Law* 20: 601–20.
- —. (2003, October). Barriers or opportunities? The causes of contingent and part-time work among people with disabilities. *Industrial Relations* 42 (4): 589–622.
- Schur, L., Kruse, D., & Blanck, P. (2005). Corporate culture and the employment of people with disabilities. *Behavioral Sciences and the Law* 23: 3–20.
- Shepard, E., Clifton, T., & Kruse, D. (1996, January). Flexible work hours and labor productivity: Some evidence from the pharmaceutical industry. *Industrial Relations* 35 (1): 123–39.

Reasonable Accommodations Employment Issue Brief #4 National Council on Disability

Abstract

Providing workplace accommodations is a dynamic task. Technological advances, innovative workplace strategies, and changes in health and severity of disability require ongoing evaluation and modification of provided accommodations. The provision of quality beneficial and cost-effective accommodations is not a simple matter of finding suitable assistive technology (AT), but also involves an interactive process between employer and employee about individual capabilities and qualifications, business needs and resources, and consideration of work-modification strategies. Unfortunately, many existing accommodation practices do not reflect available state-of-the-art solutions, because of lack of knowledge and expertise, cost concerns, negative attitudes, and corporate culture (i.e., the attitudes, policies, and practices of a business and its employees). Information on the benefits of accommodations may enhance the interactive process as well.

Introduction

Though the Americans with Disabilities Act (ADA) does not allow a cost-benefit analysis of accommodation costs in determining whether to make an accommodation, recent studies have found that benefits outweigh the costs of granting accommodations. A study of employers making accommodations after contacting the Job Accommodation Network found that approximately half of all accommodations made by the employer had no cost associated with them, and those that did have a cost had a median cost of \$600 (Schartz et al. 2006). The study found that when all accommodations, those with and without cost, were included, the median cost dropped to \$25. More important, this study found a median direct benefit of \$1,000 for all accommodations, and a median of \$5,500 for all benefits with a dollar value more than \$0. Companies then clearly would benefit from making accommodations based on the comparison of benefit to cost. Other benefits may accrue as well, including indirect benefits of increased company productivity reported by 57 percent of those employers in the study.

The first section of this brief presents innovative policy, technological, and workplace strategies that offer to expand employment opportunities for qualified people with disabilities and increase

their inclusion and job satisfaction. This is followed by a section reviewing current accommodation practices, and a discussion offering reasons for the disparity between state-of-the-art and commonly applied practices.

State-of-the-Art Accommodations

Employer and Human Resources Strategies

Discussion of innovative workplace accommodations needs to address different employer strategies and policies that promote inclusive workplaces. Positive workplace policies and strategies to deal effectively with accommodation requests are beneficial to all involved.

Employee Assistance Programs (EAPs) assist employers, especially small employers that lack human resources (HR) and legal departments, in identifying cost-effective accommodations for employees with mental disabilities (Kramer, Neiditz, and Eller 1997). EAP professionals have expertise in clarifying workplace structures for consumers and addressing employees' needs. Aetna recently announced an EAP for small- to mid-sized firms that offers counseling, information, and referral services for employees with psychiatric disabilities and behavioral health care needs (Aetna 2004). Such programs enhance workers' productivity and serve as effective accommodations. This resource, however, is underutilized (Akabas and Gates 2002).

The Department of Defense has a Computer/Electronic Accommodations Program (CAP), which earned an award for excellence from the National Association of the Deaf, that provides and pays for AT devices and services for people with disabilities (Terrell-Lindsay and Matthews 2002). CAP offers a systematic procedure for employees and their supervisors to conduct a needs assessment, followed by an accommodation request processed within seven to ten days. Equipment tryouts are allowed at a CAP technology center prior to making the request.

Simple workplace policy changes further expand options for inclusion. Many employers prohibit the use of instant messaging (IM) systems in the workplace, but IM facilitates greater communication within the workplace for people with hearing impairments (Bowe 2002). It provides a visual, real-time, and immediate medium without the need for interpreters for some interactions, and can work at a distance or locally. Of course, interpreters are essential for some types of interactions, and IM technology will not substitute in those situations.

The Burton Blatt Institute has proposed an innovative resource for funding and support through the Workplace Accommodations Account (WAA) (Schartz, Hendriks, and Blanck 2006b). The WAA would provide an employer with initial funding needed to accommodate employees through loans, which are paid back after the employer documents the benefits derived from the accommodations. Such initiatives may be particularly useful to small employers who are hesitant about initial accommodation costs.

Technological Advances

Advances in technical expertise and in understanding the needs of people with disabilities have generated a wide array of assistive and adaptive technologies. This section highlights the general objectives of new technologies and their highly promising workplace applications.

Human-Computer Interaction

Another promising arena of technological innovation lies in Human-Computer-Interaction (HCI) systems,¹⁶ which concentrate on computer interfaces such as the keyboard and mouse. These interfaces, designed to be independent of software applications, run on the device and may be designed with flexibility to suit the diverse needs of people with disabilities without considering specific software features (Abascal 2002).

Researchers in Germany are developing a hands-free computer for people with significant motor impairments, who cannot use their voice to control input. The Hands-free Mouse Control System (HaMCoS) enables the user to give mouse commands using biosignal activity from a functioning muscle group (e.g., nose, jaw, eyes) (Felzer and Nordmann 2005).¹⁷ Cost-effective solutions are available for individuals with motor neuron diseases that use the eye gaze to control cursor movements (Corno, Farinetti, and Signorile 2002). Such a system is relatively inexpensive—its benefits outweigh its costs—as it uses a standard Web minicamera and a software product to track and convert the eye gaze into cursor movements. Some systems combine head and eye tracking to provide cursor movements (Corno and Garbo 2005). Power wheelchair joysticks and touchpads are used for text entry through controlled movements and gestures (Wobbrock et al. 2004). Different joystick movements correspond to different letters and numbers, thus removing the need for an online or actual keyboard.

Interpersonal Communication Advances

Enhancements to cell phones and handheld computing devices, adapted to individual needs, are effective work-related accommodations. A platform called CONNECT for personal portable devices, akin to BlackBerry and Palm phones, responds to the specific skills and needs of people with disabilities (Zaruba et al. 2005). CONNECT allows individuals, their assistants, community services, and other interested parties to relay messages, set and receive reminders, ask questions, and transmit multimedia through a Web page server infrastructure. Such systems benefit people with memory and cognitive impairments who need work supports. CONNECT also sends time-sensitive messages and replies, which help caregivers, family, and friends in monitoring users who might otherwise need physical monitoring and care services (Lawrence, Boxer, and Tarakeshwar 2002).

Other new technologies improve workplace interactions for people with hearing impairments. The iCommunicator is an individual tool that translates speech into text- or video-based sign language (iCommunicator n.d.). The CapTel telephone system delivers live captions during phone conversations (Job Accommodation Network 2005).

Navigation and Positioning Systems

Navigation solutions increase the independence of people with visual and cognitive impairments in unfamiliar locations, as well as that of many people without disabilities. Systems such as Pharos combine cellular phone and global positioning technologies into mobile phones with navigation and location-based services and talking map capabilities (Marsh, May, and Saarelainen 2000). The Drishti navigation system integrates positioning services, portable computers, wireless networks, and vocal communication interfaces to locate the user in outdoor and indoor areas, answer location-based queries, and provide dynamic routing information (Ran, Helal, and Moore 2004). Other innovative navigation systems combine varying reception devices with indoor wireless systems, such as ultrasound positioning (Unger 1999), radio frequency identification tags (embedded with location data in floors) (Willis and Helal 2005), and solar cells that communicate using infrared or radio frequency signals (Ross and Lightman 2005).

Accommodation Current Practices

Most of the technological advances and employer strategies highlighted above represent recent academic and scientific work and do not reflect current practice in workplace accommodations. This section discusses effective practices and commonly used technology for making accommodations.

Employers with experience of employees with disabilities are more willing to provide accommodations (Schartz, Schartz, and Blanck 2002). As accommodations typically are determined on a case-by-case basis, modifications considered reasonable for one employee may not be suitable for another (Schartz et al. 2006). The Job Accommodation Network (JAN) has documented a fivestep process to aid employers in making successful workplace accommodations. This process involves defining the situation, performing a needs assessment, exploring alternative placement options, redefining the situation if an appropriate accommodation is not found, and monitoring accommodation effectiveness (Saab and Gamble n.d.).

JAN receives most of its inquiries from employers regarding specific and complex needs of particular employees (Hendricks et al. 2005). JAN consumers are able to implement successful accommodations and report significant benefits to the company as a result (Macpherson and Keppell 1998). A major proportion of employers seek accommodations to retain employees, rather than to hire new workers (Kuhlen and Dohle 1995). More than 80 percent of employer inquiries are related to retaining employees, compared with 1.6 percent for new hires and 4.6 percent for job applicants (Bryson 1996). This suggests that although many employers may view providing accommodations to current employees as economically beneficial, greater attention to accommodations related to job searches, hiring, and training is needed. Generally, employers appear willing to pay between \$501 and \$5,000 in direct costs for workplace accommodations (Bryson 1996), and in these cases estimate that benefits gained from accommodation more than offset costs (Macpherson and Keppell 1998).

Many physical building accommodations are commonly made, sometimes as part of the interactive process, and other times during building construction. The Department of Justice provides technical assistance materials through its Web site (http://www.usdoj.gov/crt/ada/adahom1.htm). Materials include details on building standards for accessible design. Examples of physical building accommodations include accessible washrooms; power door openers; elimination of steps to stages, training rooms, or other common areas; and fire-resistant areas with call buttons for people to wait for evacuation help. Other steps might include providing companion washrooms for those who have attendants.

Policy-based accommodations might include information on service animals (U.S. Department of Justice n.d.) and corporate policies requiring all contract worker suppliers such as temporary staffing agencies, cafeteria, maintenance, and mailroom contractors to be made aware the company is trying to build a diverse workplace culture that includes people with disabilities. Other accommodations might include technological solutions and policy, such as requiring all training and communication videos to be audio described and captioned, and for all Web sites and Web-based training to follow accessibility standards. Other technology might include providing screen-readers, encouraging use of IM when it facilitates communication, or the use of voice-recognition technology. Corporate transportation and travel is another area that may warrant focus, and requirements may be implemented for all corporate transportation to be wheelchair accessible and for travel policy to accommodate attendants.

For each of these, one practice adopted by some corporations is to centralize budgets for workplace accommodation above a certain dollar limit so that frontline supervisors do not make decisions on accommodation based on costs to local budgets. This policy may be particularly important for ongoing assistance, including interpreters and personal-assistance services. Policy setting may be done centrally with responsibility for implementation with the frontline supervisor, or the supervisors may be supported by HR personnel when the supervisor needs assistance to provide effective accommodations. Such accommodations may include task-related Workplace Personal Attendant Services, such as readers for documents not supplied electronically for a person who is blind, assistance lifting materials, or assistance with business-related travel (Job Accommodation Network n.d.).

Both direct and indirect benefits may be realized by companies implementing accommodations, according to the recent JAN study (Schartz, Hendriks, and Blanck 2006a).

The vast majority of employers reported that the accommodation allowed the company to retain (87.1%), hire (16.7%), or promote (11.5%) a qualified or valued employee. Almost three-quarters (73.8%) reported that the accommodation increased the affected employee's productivity. More than half (55.4%) reported that the accommodation eliminated the cost of training a new employee. More than half (50.5%) reported it increased the accommodated employee's attendance. Other common direct benefits reported include saving on workers' compensation and other insurance (41.8%), and increased diversity of the company (43.8%). . . . The most frequently reported indirect benefits were improved interactions with coworkers (69.3%), increased overall company morale (60.7%), and increased overall company productivity (57.0%). Other reported indirect benefits included improved interactions with customers (42%), increased workplace safety (42.3%), and increased overall company attendance (36.0%). Increased profitability was reported by more than a quarter of the respondents (29.4%). Increased customer base (15.5%) and other indirect benefits (9.0%) were reported.

Other benefits may include such items as captioning aiding both those who are hard-of-hearing and those who are learning English as a second language, or power door openers that assist workers who have their hands full—for example, those who carry a laptop, purse, and briefcase, or cafeteria workers bringing food carts to conference rooms. Willingness to make accommodations also widens the available talent pool from which to draw employees.

Braille business cards both provide contact information to those who read Braille and enhance the corporate image as a company that is cognizant of disability issues, and may contribute to the workplace environment. Corporate culture has a significant impact on job satisfaction among employees with disabilities, as well as on the disparities they face in employment practices and on the provision of workplace accommodations (Schur et al. 2006). Recent research shows that differences between employees with and without disabilities in job satisfaction, company loyalty, willingness to work hard, and likelihood of turnover generally are less apparent in companies with high levels of fairness and responsiveness (Brown, Kerr, and Bayon 1998). Fairness-oriented corporate climates thereby enhance job opportunities and satisfaction, whereas unresponsive bureaucratic organizations may harm employees (Stone and Colella 1996). Still, a small percentage of employers currently provide EAPs for their employees. One survey of 2,100 U.S. firms of all sizes found that only 17 percent offered EAPs, and only 10 percent of firms with fewer than 50 employees used EAPs (Teich and Buck 2003). Yet, studies indicate that EAP use is growing fast (Lawrence, Boxer, and Tarakeshwar 2002).

Many employers in the information technology (IT) industry are willing to consider flexible scheduling and AT, but are less likely to consent to telecommuting, tele-work, and support personnel (Smedley and Higgins 2005). Many employers also are less willing to use support personnel such as interpreters, personal attendants, or job coaches as workplace accommodations (Bryson 1996). This reluctance may pose a significant barrier for many people with severe disabilities and hearing impairments seeking employment. Systems such as CONNECT and CapTel make useful accommodations in such situations. Public-private collaborations often help employers identify best practices and innovative strategies (Bryson 1996).

JAN's Web site describes a variety of technologies in relation to varying disabilities and work situations the technologies accommodate. Mobility and orientation trainings, guide animals, and travel partners aid people with visual impairments to navigate new work sites (Gamble n.d.). Commonly used alternative input devices include voice-recognition software, trackball mice, modified and wireless keyboards, and joysticks (Speaking of Computers 2002). TTY devices, relay services, text messaging, pagers, and other wireless devices are used for communicating with employees with hearing impairments (Saab n.d.). The independence derived through these applications is enhanced by using state-of-the-art navigation, communication, monitoring, and interface systems.

Gaps Between State-of-the-Art and Current Accommodation Practices

It is important to identify apparent causes for gaps between the state-of-the-art and current accommodation practices, discussed above, especially observed in the use of technology. Inaccurate information or a lack of awareness of accommodation tools and practices, and their relative benefits and costs, poses unnecessary barriers to successful employment outcomes for people with disabilities.

The lack of awareness and knowledge about possible accommodations is too common among employers (Bryson 1996; Smedley and Higgins 2005). Employers and people with disabilities are challenged to keep pace with frequent technological innovations and consider available alternatives. Services such as JAN play an important role in disseminating accommodation information, and several government programs (e.g., Center for IT Accommodations), funding, and technical assistance services are available to aid employers (Job Accommodation Network n.d.). However, general awareness of these resources and facilities often is limited (Unger 1999). Employers may not recognize the use of existing programs as effective accommodations. This may explain why EAPs have not been recognized, or implemented broadly, as workplace accommodations, though they increase workplace productivity and performance by addressing employees' behavioral and mental health concerns (Brooks and Rose 2003). Cost is another factor often inaccurately associated with accommodation decisions. Many employers overestimate the expenses they will incur to accommodate an employee with a disability (Cantor 1998; Kuhlen and Dohle 1995; Peck and Kirkbride 2001). Although 80 percent of accommodations cost below \$500, many employers assume that their expenses will run into "tens of thousands of dollars" (Mendozzi et al. 2000). Increasingly, employers deserve accurate information regarding the broad availability and applicability of beneficial and effective accommodations. Cost, however, may be perceived as a significant obstacle in utilizing some state-of-the-art technology. The Kurzweil-National Federation of the Blind Reader, which scans and reads out printed material, costs about \$3,500 per unit, a potential barrier to widespread use (Batheja 2006). Costs for virtual reality trainings can range from near nothing for simple programs to \$8,000 for a high-quality virtual reality program, and almost \$10,000 for sophisticated equipment such as head-mounted displays and gloves (Macpherson and Keppell 1998). Of course, careful consideration of the employee's needs aids in selecting options that match training requirements and the employer's budget. But most AT accommodations have other universal applications that enhance productivity, workplace safety, and reduce workplace injuries.

Employers and people with disabilities will enjoy better employment outcomes through increased knowledge and information sharing. Proactive policies that allow for matching employees' needs with available resources help bridge the gap between up-to-date and state-of-the-art accommodations. Positive corporate cultures are important for embracing open communications, goal exploration and sharing, and the employee's central role in the interactive process (Scherer and Glueckauf 2005). An organization-wide accommodation task force may provide expertise and resources to develop creative solutions that transcend minimal compliance with the law (Blanck et al. 2003, 2005). A disability services coordinator often is important, and HR personnel who implement accommodations require ongoing training in their roles and responsibilities (Mondak 2000). Regular staffwide training to develop greater awareness and reduce negative stereotypes about disability issues is valuable. These positive practices will improve employment opportunities, outcomes, and job satisfaction.

Promising Practices in Training

Virtual Reality, Simulations, and Training Applications

Computer simulations and virtual reality environments provide technical and social skills training and instructional modules for people with disabilities. Computer simulations are computerized

representations of real-world phenomena. Virtual reality environments, mostly threedimensional and frequently interactive, are designed to emulate real-world situations and environments (Bryson 1996; Smedley and Higgins 2005; Steuer 1992). Users are immersed in these environments through specialized equipment such as head-mounted displays, hand gloves, and goggles to manipulate and interact with virtual objects (Kuhlen and Dohle 1995).

These mechanisms present a cost-effective opportunity for people with disabilities to experience and adapt to small and large work environments, which otherwise may be costly and difficult to arrange (e.g., field trips) or dangerous (e.g., chemistry laboratories). Virtual reality trainings aid people with visual impairments to develop a mental mapping of unfamiliar places, thus facilitating their independent navigation (Lahav and Mioduser 2002). Individuals with learning disabilities benefit from virtual vocational training, such as virtual training kitchens for catering students (Brooks et al. 2002), using public transport facilities (Rose, Brooks, and Attree 2002), and navigating virtual cities to develop important skills in accessing public facilities (Brown, Kerr, and Bayon 1998). Mendozzi and colleagues developed a virtual factory training workshop, warehouse, and office where people with mental disabilities practiced tasks such as assembling and handling materials and goods (Mendozzi et al. 2000). People with intellectual disabilities may improve their decision-making skills and reduce choice reaction times through virtual reality trainings (Standen and Ip 2002).

Simulations and virtual reality also have been used to develop the money management and banking skills of people with intellectual disabilities (Davies, Stock, and Wehmeyer 2003), provide telephone operator trainings for people with cerebral palsy (Brooks and Rose 2003), develop memory enhancement modules for people with attention deficits and brain injuries (Brooks et al. 1999), and plan environments to navigate architectural and environmental barriers (Germann, Broida, and Broida 2003). These tools also offer an interactive environment for practicing social behaviors through role playing, simulating social events, and problem-solving scenarios in a repetitive manner (Cobb et al. 2002; Parsons and Mitchell 2002), and offer help in overcoming public-speaking fears (Abascal 2002). The universal application of skills learned through these virtual trainings transfer positively into the real world for employees with and without disabilities (Cromby et al. 1996; Rose et al. 2000; Standen and Cromby 1995).

References

- Abascal, J. (2002). *Human-Computer Interaction in assistive technology: From "patchwork" to "universal design.*" Paper presented at the 2002 IEEE International Conference on Systems, Man and Cybernetics Vol. 3. Hammamet, Tunisia.
- Aetna. (2004). Aetna offers Employee Assistance Program alongside long term disability insurance plans. Retrieved July 27, 2006, from http://www.aetna.com/news/2006/pr_20060524.htm
- Akabas, S. H., & Gates, L. B. (2002). The role of Employee Assistance Programs in supporting workers with mental health conditions. *New York Work Exchange: A project of the Coalition of Voluntary Mental Health Agencies*. Retrieved July 27, 2006, from http://www. cvmha.org/ccrr/projects/eap-report.pdf
- Batheja, A. (2006). New gadgets help blind, but at a cost. *Star Telegram*. Retrieved July 27, 2006, from http://www.dfw.com
- Blanck, P. D. (1996). Communicating the Americans with Disabilities Act: Transcending compliance—1996. Follow-up report on Sears, Roebuck & Co., Annenberg Washington Program, Washington, DC.
- Blanck, P., Hill, E., Siegal, C., & Waterstone, M. (2003). *Disability civil rights law and policy*.St. Paul, MN: Thomson/West Publishers.
- Blanck, P., Hill, E., Siegal, C., & Waterstone, M. (2005). *Disability civil rights law and policy: Cases and materials*. St. Paul, MN: Thomson/West Publishers.
- Bowe, F. G. (2002). Deaf and hard of hearing Americans' instant messaging and email use: A national survey. *American Annals of the Deaf* 147 (4): 6–10.
- Brooks, B. M., McNeil, J. E., Rose, F. D., Greenwood, R. J., Attree, E. A., & Leadbetter, A. G. (1999). Route learning in a case of amnesia: A preliminary investigation into the efficacy of training in a virtual environment. *Neuropsychological Rehabilitation* 9 (1): 63–76.
- Brooks, B. M., & Rose, F. D. (2003). The use of virtual reality in memory rehabilitation: Current findings and future directions. *Neurorehabilitation* 18 (2): 147–57.
- Brooks, B. M., Rose, F. D., Attree, E. A., & Elliot-Square, A. (2002). An evaluation of the efficacy of training people with learning disabilities in a virtual environment. *Disability and Rehabilitation* 24 (11–12), 622–26.
- Brown, D. J., Kerr, S., & Bayon, V. (1998). The development of the virtual city: A user centered approach. *Proceedings of the 2nd European Conference on Disability, Virtual Reality and As-*

sociated Technologies. Retrieved July 27, 2006, from http://www.icdvrat.reading.ac.uk/1998/abstracts.htm

- Bryson, S. (1996). Virtual reality in scientific visualization. *Communications of the ACM* 39 (5): 62–71.
- Cantor, A. (1998). Disability in the workplace: Effective and cost-effective accommodation planning. Article based on presentation at the 1998 National Consultation on Career Development (*NATCON*) conference, Ottawa, Canada. Available at: www.cantoraccess.com/natcon98.htm
- Cobb, S., Beardon, L., Eastgate, R., Glover, T., Kerr, S., Neale, H., et al. (2002). Applied virtual environments to support leaning of social interaction skills in users with Asperger's syndrome. *Digital Creativity* 13 (1): 11–22.
- Corno, F., Farinetti, L., & Signorile, I. (2002). A cost-effective solution for eye-gaze assistive technology. *Proceedings of 2002 IEEE International Conference on Multimedia and Expo*, 2: 433–36.
- Corno, F., & Garbo, A. (2005). Multiple low-cost cameras for effective head and gaze tracking. Paper presented at the 11th International Conference on Human-Computer Interaction, Las Vegas, July. Retrieved July 27, 2006, from http://www.cad.polito.it/FullDB/exact/hci05. html
- Cromby, J. J., Standen, P. J., Newman, J., & Tasker, H. (1996). Successful transfer to the real world of skills practised in a virtual environment by students with severe learning disabilities. *Proceedings of the 2nd European Conference on Disability, Virtual Reality and Associated Technologies*. Retrieved July 27, 2006, from http://www.icdvrat.reading.ac.uk/1996/abstracts. htm
- Davies, D. K., Stock, S. E., & Wehmeyer, M. L. (2003). Application of computer simulation to teach ATM access to individuals with intellectual disabilities. *Education and Training in Developmental Disabilities* 38 (4): 451–56.
- Drigas, A. S., Vrettaros, J., & Kouremenos, D. (2004). E-learning environment for deaf people in the e-commerce and new technologies sector. *WSEAS Transactions on Information Science and Applications* 5 (1).
- Felzer, T., & Nordmann, R. (2005). How to operate a PC without using the hands. ACM SIGAC-CESS Conference on Assistive Technologies. *Proceedings of the 7th International ACM* SIGACCESS Conference on Computers and Accessibility, 198–99.
- Gamble, M. J. (n.d.). Work-site accommodation ideas for individuals with vision impairments. Retrieved July 27, 2006, from http://www.jan.wvu.edu

- Gamble, M. J., Dowler, D., & Hirsh, A. E. (2004). Informed decision making on assistive technology workplace accommodations for people with visual impairments. *Work* 23 (2): 123–30.
- Germann, C., Broida, J. K., & Broida J. M. (2003). Using computer-based virtual tours to assist persons with disabilities. *Educational Technology & Society* 6 (3): 53–60. Retrieved July 27, 2006, from http://ifets.ieee.org
- Hendricks, D. J., Batiste, L. C., Hirsh, A., Schartz, H., & Blanck, P. (2005). Cost and effectiveness of accommodations in the workplace: Preliminary results of a nationwide study. *Disability Studies Quarterly* 25 (4). Retrieved July 27, 2006, from http://www.dsq-sds.org/_articles_ html/2005/fall/hendricks_etal.asp
- iCommunicator. (n.d.). Product information. Retrieved July 27, 2006, from http:// www.myicommunicator.com
- Job Accommodation Network. (2001). Accommodations for housekeeping/janitorial workers with industrial injuries. *JAN Consultant's Corner* 1 (2). Retrieved July 27, 2006 from http://www.jan.wvu.edu/corner/vol01iss02.htm
 - ——. (2005). Technology spotlight: Communication access technology for individuals who are deaf or hard of hearing. *JAN e-news* 3 (2). Retrieved July 27, 2006, from http://www.jan.wvu. edu/enews/2005/Enews_V3-I2.htm#three
- ——. (n.d.). Accommodation and Compliance Series: Personal Assistance Services (WPAS) in the work place. Retrieved January 15, 2007, from http://www.jan.wvu.edu/media/PAS.html
- Kim, J. S., Jeong, H., & Son, W. (2004). *A new means of HCI: EMG-Mouse*. 2004 IEEE International Conference on Systems, Man and Cybernetics, 100–04.
- Kramer, R., Neiditz, J., & Eller, E. (1997). The EEOC's new ADA mental disability guidelines: An EAP is a pretty reasonable accommodation. *Benefits Quarterly* 13 (4): 72–6.
- Kuhlen, T., & Dohle, C. (1995). Virtual reality for physically disabled people. *Computers in Biology and Medicine* 25 (2): 205–11.
- Lahav, O., & Mioduser, D. (2002). Multisensory virtual environment for supporting blind persons' acquisition of spatial cognitive mapping, orientation, and mobility skills. *Proceedings of the 4th International Conference on Disability, Virtual Reality and Associated Technologies*.
- Lawrence, J. A., Boxer, P., & Tarakeshwar, N. (2002). Determining demand for EAP services. *Employee Assistance Quarterly* 18 (1): 1–16.

- Macpherson, C., & Keppell, M. (1998). Virtual reality: What is the state of play in education. *Australian Journal of Educational Technology* 14 (1): 60–74. Retrieved July 14, 2006, from http://www.ascilite.org.au/ajet/ajet14/macpherson.html
- Marsh, A., May, M., & Saarelainen, M. (2000, November 9–10). Pharos: Coupling GSM and GPS-TALK technologies to provide orientation, navigation and location-based services for the blind. *Proceedings of 2000 IEEE EMBS International Conference on Information Technology Applications in Biomedicine*, 38–43.
- Mendozzi, L., Pugnetti, L., Barbieri, E., Attree, E. A., Rose, F. D., Moro, W., et al. (2000).
 VIRT—factory trainer project. A generic productive process to train persons with disabilities.
 Proceedings of 3rd International Conference on Disability, Virtual Reality and Associated Technologies. Retrieved July 27, 2006, from http://www.icdvrat.reading.ac.uk/2000/abstracts.htm
- Mondak, P. (2000). The Americans with Disabilities Act and information technology access. *Focus on Autism and Other Developmental Disabilities* 15 (1): 43–51.
- National Council on Disability (NCD). (2001). The Accessible Future. Retrieved July 27, 2006, from http://www.ncd.gov/newsroom/publications/2001/accessiblefuture.htm
- ——. (2004). Design for inclusion: Creating a new marketplace—Industry white paper. Retrieved July 27, 2006, from http://www.ncd.gov/newsroom/publications/2004/pdf/inclusion_ whitepaper.pdf
- Parsons, S., & Mitchell, P. (2002). The potential of virtual reality in social skills training for people with autistic spectrum disorders. *Journal of Intellectual Disability Research* 46 (5): 430–43.
- Peck, B., & Kirkbride, L. T. (2001). Why businesses don't employ people with disabilities. *Journal of Vocational Rehabilitation* 16 (2): 71–5.
- Ran, L., Helal, S., & Moore, S. (2004). Drishti: An integrated indoor/outdoor blind navigation system and service. *Proceedings of the Second IEEE Annual Conference on Pervasive Computing and Communications*, 23–30.
- Rose, F. D., Brooks, B. M., & Attree, E. A. (2000). Virtual reality in vocational training of people with learning disabilities. *Proceedings of 3rd International Conference on Disability, Virtual Reality and Associated Technologies*. Retrieved July 27, 2006, from http://www.icdvrat. reading.ac.uk/2000/abstracts.htm
- Rose, F. D., Brooks, B. M., & Attree, E. A. (2002). An exploratory investigation into the usability and usefulness of training people with learning disabilities in a virtual environment. *Disability and Rehabilitation* 24 (11–12): 627–33.

- Ross, D. A., & Lightman, A. (2005). Talking Braille: A wireless ubiquitous computing network for orientation and wayfinding. *Proceedings of the 7th international ACM SIGACCESS Con-ference on Computers and Accessibility*, 89–105.
- Rothke, S. E. (2001). Developing job accommodations for workers with brain injuries. *Inside Case Management* 8 (7): 2–4.
- Saab, T. D. (n.d.). Work-site accommodation ideas for individuals who are deaf or hard of hearing. Retrieved July 27, 2006, from http://www.jan.wvu.edu/media/Hearing.html
- Saab, T. D., & Gamble, M. J. (n.d.). The job accommodation process. Retrieved July 27, 2006, from http://www.jan.wvu.edu/media/JobAccommodationProcess.html
- Schartz, H. A., Hendricks, D. J., & Blanck, P. (2006a). Workplace accommodations: Evidence based outcomes. *Work* 27: 345–54.
- Schartz, H. A., Hendricks, D. J., & Blanck, P. (2006b). Workplace accommodations: More empirical outcomes. *University of Mississippi Law Review*.
- Schartz, H. A., Schartz, K. M., Hendricks, D. J., & Blanck, P. (2006). Workplace accommodations: Empirical study of current employees. *Mississippi Law Journal*, 75 Miss. L.J. 917, 918 (Spring, 2006).
- Schartz, K., Schartz, H. A., & Blanck, P. (2002). Employment of persons with disabilities in information technology jobs: Literature review for "IT Works." *Behavioral Sciences and the Law* 20 (6): 637–57.
- Scherer, M. J., & Glueckauf, R. (2005). Assessing the benefits of assistive technologies for activities and participation. *Rehabilitation Psychology* 50 (2): 132–41.
- Schur, L., Kruse, D., Blanck, P., & Blasi, J. (2006, May). Corporate culture and the experiences of employees with disabilities. Paper presented at the Society for Industrial and Organizational Psychology Annual Conference, Dallas, Texas.
- Smedley, T. M., & Higgins, K. (2005). Virtual technology: Bringing the world into the special education classroom. *Intervention in School and Clinic* 41 (2): 114–19.
- Speaking of Computers. (2002). Alternative micestyles and unconventional keyboards. *Speaking of Computers* 58. Retrieved July 27, 2006, from http://speaking.stanford.edu/Back_Issues/SOC58/index.html
- Standen, P. J., & Cromby, J. J. (1995). Can students with developmental disability use virtual reality to learn skills which will transfer to the real world? *Proceedings of the 1995 CSUN VR*

Conference. Retrieved July 27, 2006, from http://www.csun.edu/cod/conf/1995/ proceedings/0011.htm

- Standen, P. J., & Ip, W. M. D. (2002). An evaluation of the use of virtual environments in improving choice reaction time in people with severe intellectual disabilities. *Proceedings of the 4th International Conference on Disability, Virtual Reality and Associated Technologies*. Retrieved July 27, 2006, from http://www.icdvrat.reading.ac.uk/2002.
- Steuer, J. (1992). Defining virtual reality: Dimensions determining telepresence. *Journal of Communication* 42 (4): 73–93.
- Stone, D. L., & Colella, A. (1996). A model of factors affecting the treatment of disabled individuals in organizations. *The Academy of Management Review* 21 (2): 352–401.
- Teich, J. L., & Buck, J. A. (2003). Datapoints: Mental health services in Employee Assistance Programs, 2001. *Psychiatric Services* 54 (5): 611.
- Terrell-Lindsay, S. Y., & Matthews, B. (2002). Computer/Electronic Accommodations Program (CAP). *Work* 18 (2): 205–06.
- Unger, D. D. (1999). Workplace supports: A view from employers who have hired supported employees. *Focus on Autism and Developmental Disabilities* 14 (3).
- Unger, D., & Kregel, J. (2003). Employers' knowledge and utilization of accommodations. *Work* 21 (1): 5–15.
- U.S. Department of Justice. (n.d.). *ADA Business Brief: Service animals*. Retrieved January 10, 2007, from http://www.usdoj.gov/crt/ada/svcanimb.htm
- Willis, S. & Helal, S. (2005). RFID information grid for blind navigation and wayfinding. *Proceedings of Ninth IEEE International Symposium on Wearable Computers*, 2000: 34–37.
- Wobbrock, J. O., Myers, B. A., Aung, H. H., & LoPresti, E. F. (2004). Text entry from power wheelchairs: EdgeWrite for joysticks and touchpads. *Proceedings of the 6th International* ACM SIGACCESS Conference on Computers and Accessibility, 110–17.
- Zaruba, G., Kamangar, F., Huber, M., & Levine, D. (2005). CONNECT: A personal remote messaging and monitoring system to aid people with disabilities. *IEEE Communications Magazine* 43 (9): 101–09.
- Zwerling, C., Whitten, P. S., Sprince, N. L., Davis, C. S., Wallace, R. B., Blanck, P., & Heeringa, S. G. (2003). Workplace accommodations for people with disabilities: National Health Interview Survey disability supplement, 1994–95. *Journal of Occupational and Environmental Medicine* 45 (5): 517–25.

Corporate Culture, Disability and Diversity Employment Issue Brief #5 National Council on Disability

Abstract

Corporate culture—the explicit and implicit attitudes, norms, policies, and practices in an organization—can greatly affect employment opportunities for people with disabilities. A company's culture helps determine not only who gets hired, but also employee treatment, performance, attitudes, turnover, and other outcomes. This brief reviews the theory and evidence of the role of disability in corporate culture. Among the Fortune 100 companies, 39 have diversity policies that explicitly mention disability, and 11 have supplier diversity policies that mention disability, although there appears to be great variation in the extent of the commitment to reaching out to people with disabilities. Theory and some limited evidence support the idea that people with disabilities fare better in flexible organizations that value diversity, cooperation, and the personalized consideration of employee needs, as opposed to organizations with bureaucratic cultures using impersonal application of rules and procedures.

Introduction

"When individuals with disabilities attempt to gain admittance to most organizational settings, it is as if a space ship lands in the corporate boardroom and little green men from Mars ask to be employed." (John, a 58-year-old employed man with paraplegia [Boyle 1997, 263])

"The diversity at IBM encourages people to learn about other cultures. Pamela feels that's one reason her coworkers feel free to ask about her deafness. 'People are friendly and understanding,' says Pamela, who calls her deafness an 'invisible disability' at IBM."¹⁸

Corporate culture is an important factor in the ability of people with disabilities to be employed. Corporate cultures fundamentally shape policies, attitudes, and opportunities. These in turn impact the experiences of people with disabilities, including "job satisfaction, likely turnover, and willingness to work hard for the employer" (Schur, Kruse, and Blanck 2005). Much research has been conducted on corporate culture, and many organizations have diversity programs (Klein, Schmeling, and Blanck 2005; Ball et al. 2005). Reviews of the literature and of organization's diversity initiatives, however, reveal that disability often is either overlooked or treated differently than are other components of diversity (Ball et al. 2005). Little has been studied in the area of corporate culture around disability issues.

Some diversity research includes disability as a category of interest, but the focus remains on gender, race, and sexual orientation (Knowling 2003; ITAA 2003). Most existing research on disability has focused on supervisor and coworker attitudes and their effects on employees with disabilities (Blanck and Marti 1997). Research has been performed on factors that influence attitudes, which include stereotypes, discomfort with being around people with disabilities, communication difficulties, personality, and prior experience with people with disabilities. Disability can also affect supervisor and coworker attitudes, including performance expectations, performance evaluations, desire to have coworkers with disabilities, and hiring into positions of responsibility (Schur, Kruse, and Blanck 2005). A better understanding of such cultures may help expose ways to improve the employment status and the lives of people with disabilities in a way supported within the cultures.

Corporate cultures can be affected by efforts to comply with civil rights laws and regulations. Civil rights laws pertaining to people with disabilities include the 1990 Americans with Disabilities Act (ADA) and the 1973 Rehabilitation Act. As in diversity research, emphasis on civil rights compliance generally has not focused on disability but on race, gender, or sexual orientation and the state and federal laws pertaining to such protected status, including the Civil Rights Act and the Equal Employment Opportunity Act (Aldrich 1999; Edelman 1992). Employee response to corporate implementation of law and regulation has also been examined recently, and does include the ADA (Fuller, Edelman, and Matusik 2000). Both economic incentives and regulatory compliance have implications for corporate culture as well as, directly and indirectly, the employment rates of people with disabilities. Understanding the impact of civil rights legislation such as the ADA on the corporate culture and business practice is critical to employers and policymakers, as well as employees with disabilities (Blanck, Hill, Siegal, and Waterstone 2003). Similar to other diversity issues that corporations have addressed to their benefit, employment of people with disabilities is an important issue for many stakeholders.

Diversity Policies

Diversity policies benefit companies by enabling them to attract and retain a workforce that generates "new ideas and help[s] companies be more responsive in a diverse marketplace" (Brancato and Patterson 1999, 5). AOL/Time Warner's (2004) written diversity policy draws a connection between the company's commitment to diversity and shareholder value: "To compete in the global economy, we must attract, develop and retain the world's best talent from among the broadest range of people, backgrounds and perspectives." The majority of the most successful companies in the United States have developed such policies.

In addition to the importance of attracting a diverse workforce, companies recognize the benefit of promoting tolerance in the workplace. Johnson and Johnson's (2004) diversity policy statement notes that "[i]ntolerance is simply unacceptable. It divides people and creates barriers to the innovative, team-based environments that are so essential to our success as a corporation." Likewise, in *Grutter v. Bollinger* (2003), the Supreme Court cited briefs submitted by General Motors, 3M, and others to support the proposition that "major American businesses have made clear that the skills needed in today's increasingly global marketplace can only be developed through exposure to widely diverse people, cultures, ideas, and viewpoints" (330).

Employers recognize that managing diversity effectively as part of a comprehensive human resource management program may reduce absenteeism and turnover and increase commitment to the organization and general satisfaction levels (Gandz 2001). For example:

- A 1998 survey conducted by the Society for Human Resource Management (SHRM) concluded that "84 percent of human resource professionals at Fortune 500 companies say their top-level executives think diversity management is important" (SHRM 2004).
- Diversity management courses in colleges and workshops have proliferated, showing that diversity is a valuable part of human resource management (Cornell University School of Industrial and Labor Relations, 2007).

This growing interest in sophisticated diversity management is partly motivated by a desire to avoid or mitigate the potential for lawsuits with catastrophic consequences. Some companies have instituted diversity policies and programs designed to root out racism in the company's corporate culture. Top companies have faced lawsuits and have been the target of high-profile class action discrimination suits (National Organization on Disability 2003a; Ramirez, 2000).

Knowling (2003) suggests that change relies not on law or external incentives, but rather on actions in the boardroom, regardless of external influences, which mandate increased diversity. At-risk compensation—for example, pay tied to performance and specific goals—may be tied to diversity by looking at position and pay to ensure that diversity and equity are achieved. Determining who has responsibility to implement diversity and then understanding the systems of rewarding or penalizing the responsible parties is of interest for future study. Individuals can be rewarded on their ability to create teams, and the diversity of such teams, which include people with disabilities, might be one variable in evaluating a leader's ability to drive change.

Appropriate and effective diversity policies benefit traditionally underrepresented groups in the following ways:

- Diversity initiatives fund scholarships and mentoring programs designed to cultivate a diverse workforce at the educational level, which benefit students who might otherwise face barriers to educational opportunities.
- As part of their efforts to build the public's perception that they are committed to diversity, many Fortune 100 companies engage in philanthropic activities in diverse communities.
- Companies that focus on diversity make efforts to develop products and services that appeal to and benefit the communities they serve, which can allow customers in underrepresented communities access to higher quality goods and services, and provide people with disabilities with products and services specifically designed to be accessible to them (Gandz 2001, Sandler and Blanck 2004).
- Job applicants and workers benefit from the elimination of barriers to employment they might face in the job market—for instance, companies attend job fairs that cater to underserved populations and make other efforts to reach out to workers who face barriers to employment.

Diversity policies that include a commitment to making accommodations for employees with disabilities not only reaffirm legal requirements imposed on the company but also signal a top-level commitment to accommodating and including people with disabilities in the work environment. As noted by Schur, Kruse, and Blanck (2005), this kind of commitment has been found to be an important step in reducing barriers to employment for people with disabilities. Furthermore, diversity training and mentoring programs are part of a comprehensive diversity initiative, and including people with disabilities in these programs may reduce barriers to employment. There is preliminary evidence that diversity policies generally have a positive impact on the status of people with disabilities in the workplace. A 2004 *New York Times* market research survey found that "companies with workplace diversity programs had twice as many people with disabilities in management positions (2%) as companies without diversity programs (1%)" (National Organization on Disability 2003b). In addition, diversity policies that transcend recruitment and focus on the productivity of employees from diverse backgrounds, female employees, and employees with disabilities have been shown to foster a supportive work environment for these employees. For example, a study at Sears Roebuck found that accommodations for employees with disabilities produced substantial economic benefit to companies in increased work productivity, injury prevention, reduced workers' compensation costs, and workplace effectiveness and efficiency (Blanck 1994, 1996).

Disability and Diversity Policies in the Fortune 100

Large companies such as those in the Fortune 100 often create quasi-legal structures within their organizations (Edelman 1992). They are sensitive to the legal environment because they face lawsuits at a high rate. They are organizationally and financially equipped to develop policies and procedures for the mediation and adjudication of disputes within the organization to avoid resorting to the formal legal system. Therefore, diversity policies often have an impact on the internal dispute resolution and human resource management mechanisms within these major corporations.

Though diversity policies often have a positive impact on businesses and their communities, a study of the Fortune 100 shows that these policies are inconsistent in their inclusion of people with disabilities within the definition of diversity (Ball et al. 2005). There are two essential types of diversity policy:

- 1. Workplace diversity policies with respect to employment
- 2. Supplier diversity policies that promote the patronage of businesses owned by underserved populations

These two categories can be subdivided according to whether the policy is a) "inclusive" by explicitly including people with disabilities in the definition of diversity, b) "noncommittal" by not defining diversity in terms of any specific groups, or c) "disability absent" by specifying groups included in the definition of diversity without mention of people with disabilities.

Ball and colleagues found that 92 of the Fortune 100 companies have workplace diversity policies, and 39 (42%) of these policies expressly mention people with disabilities. The inclusion of people with disabilities is most common among companies in the technology sector (perhaps in response to Section 508 of the Rehabilitation Act) and the chemical industry, and least common among financial companies.

It is encouraging that a substantial number of Fortune 100 companies have realized the role people with disabilities play in building a diverse workforce, but at this point we are not able to assess the extent to which people with disabilities actually benefit from the diversity policies. Many of the inclusive diversity statements simply mirror the standard, legally required, equal employment opportunity policy. Further study could examine the company's initiatives, events, recruiting activities, and touted diversity activities made public on the corporate Web sites. For example, some corporate Web sites show the company's commitment to diversity by highlighting the following:

- Employee resource groups
- Stories of diverse employees and their experiences with the company
- Awards the company has received for its diversity initiatives
- Efforts to recruit or retain a diverse workforce
- The company's involvement with special interest groups
- Efforts to make products and services attractive and accessible to people in underrepresented groups

Some Fortune 100 companies note their participation in specialized job fairs geared toward students from diverse backgrounds, although no company made it clear that they attend job fairs for people with disabilities. In addition, many companies highlight their efforts to appeal to a diverse marketplace, but the diversity policies are not always connected to an express concern with making products and services accessible to people with disabilities.

Some companies applaud diversity but never describe it. Forty-three of the Fortune 100 companies do not define diversity in terms of which groups contribute to a diverse work environment. Absent other evidence, it is not possible to tell who benefits from these diversity policies. The highlighting of accolades and initiatives aimed at groups from diverse backgrounds, without mention of disability, is a common feature of Fortune 100 companies with broad diversity statements, as is a focus on women and racial and ethnic groups when describing workplace demographics. This suggests that, though these statements seem inclusive, people with disabilities are not a focus of these companies' efforts to promote diversity. In contrast, the broad diversity statements of some companies provide evidence of their commitment to including people with disabilities in the workforce.

A few companies in the Fortune 100 define diversity in terms that seem to exclude people with disabilities. Ten companies list a number of groups that add to the diversity of the workplace, but do not include people with disabilities. It is difficult to determine whether such policy statements have a negative impact on the community of people with disabilities or the likelihood that they will be hired or retained by a particular company.

In addition to adopting diversity statements for employment purposes, 73 of the Fortune 100 companies have adopted policies regarding supplier diversity. These statements express the corporation's commitment to suppliers that are owned by members of traditionally underrepresented groups. Only 11 of these policies, however, include people with disabilities within the meaning of diversity.

Flexible v. Bureaucratic Cultures

Employees with disabilities can respond to unfriendly or indifferent corporate cultures by using a number of strategies to shape expectations in the workplace, including the following:

- a) Concealing the disability
- b) Communicating information about the disability to reduce discomfort and clarify norms
- c) Requesting help to clarify expected behaviors
- d) Emphasizing similarity to others through shared interests, opinions, and values
- e) Becoming a "superworker" to dispel stereotypes and modify others' expectations (Stone and Colella 1996)

Some employees with disabilities also take an activist approach and seek to change organization policies on their own or in concert with others, or use cognitive strategies to protect themselves (Sandler and Blanck 2004).

Employees with disabilities are likely to fare particularly badly in bureaucratic organizations that emphasize competitive achievement and are based on an equity value system, which pits the fairness of treatment for all employees against the personalized consideration of employees with disabilities (Stone and Colella 1996). In such companies workplace accommodations are more likely to be viewed as unfair—an unjustified "perk"—especially if they are seen as making the accommodated person's work easier, making the coworker's job harder or less desirable, and causing coworkers to lose competitive rewards (even though the benefits of workplace accommodations are dations are generally clear and the costs minor) (Schartz, Hendricks, and Blanck 2006).

Organizational values may be reflected in workplace policies that unduly restrict the ability of employees with disabilities to perform job functions. Job analysis or description that identifies ideal job characteristics, rather than essential job characteristics in conformance with ADA requirements, tends to exclude employees with disabilities and marginalize them into less desirable jobs (Stone and Colella 1996; Boyle 1997).

In contrast, people with disabilities are likely to fare better in flexible organizations that value diversity, cooperation, and the personalized consideration of employee needs (Stone and Colella 1996). Company cultures based on a "needs" model, as opposed to an "equity" model, are more likely to approve accommodations generally, especially in work environments that stress individual autonomy and let employees decide how to perform their own work (Colella 2001). Organizations that are flexible, supportive, and sensitive to individual needs (for all employees, not just those with disabilities) engender workgroup cultures that are supportive of accommodations and universal design of workplaces.

These ideas receive support from some laboratory studies (Colella 2001; Colella, DeNisi, and Varma 1998), and from a recent study of close to 30,000 employees in 14 companies:

"There are no gaps between employees with and without disabilities in attitudes and turnover intention in worksites that are rated highly by all employees for fairness and responsiveness, while there are disability gaps in worksites with lower ratings for fairness and responsiveness. This indicates that employees with disabilities fare much better in companies with a culture that is viewed as fair and responsive to the needs of all employees, while employees with disabilities are especially harmed by unresponsive bureaucratic organizations." (Schur et al. 2006)

Conclusion

Though it is encouraging that the most successful companies in the United States show significant efforts to include people with disabilities in the diverse workforce, examination of company diversity policies reveals that there is room for improvement. Furthermore, many companies do not support businesses owned by people with disabilities, although they develop initiatives to advance minority- and women-owned businesses. Although it is difficult to say what, if any, effect these trends have on people with disabilities—as job seekers, employees, consumers, and small business owners—it is possible that people with disabilities are not benefiting from the focus on diversity as much as are other groups that fall within definitions of diversity. In turn, companies that fail to include people with disabilities within their definitions of diversity may not be reaping the benefits of a diverse workforce. This failure is of growing importance since, as with women and people who have diverse backgrounds, the share of people with disabilities in the workforce is expected to increase as the population ages (Zwerling et al. 2003).

There is reason for optimism. A number of companies include people with disabilities within the definition of diversity and, by extension, in the diverse workplace itself. A smaller number of companies include people with disabilities in their supplier diversity statements and make efforts to promote and support businesses that are owned by people with disabilities. As noted, the companies with diversity policies have greater representation of people with disabilities in management positions.

Thomas Kochan of MIT's Sloan School of Management notes that there is a dearth of data relating efforts at promoting diversity with verifiable outcomes. Kochan and colleagues find that studying diversity in organizations is difficult and companies are reluctant to allow researchers to examine their successes and failures with regard to such a litigious topic. After initiating conversations with 20 Fortune 500 companies, Kochan and his colleagues were able to enlist the participation of four companies (Kochan et al. 2003). They point out that "organizations need to do a better job of tracking and evaluating the impact of their strategies for managing a diverse workforce" (17).

Until these barriers to assessing the effectiveness of diversity policies are overcome, it will be difficult to quantify the effect of including people with disabilities in diversity policies and

programs. In addition, it will be difficult to establish the relation of diversity policies generally, and those including people with disabilities specifically, to the outcomes that companies care about: profits, shareholder value, lawsuits, turnover, and other indicators of successful human resource management. The CEOs of the most successful companies in the nation may be inclined to "do the right thing" with regard to including people with disabilities in the workplace and as suppliers. However, this inclination will need to be transformed into action to show how policies and practices that effectively include people with disabilities are good for companies as well as for the economic and social integration of people with disabilities.

References

CORPORATE CULTURE

IB # 5:

Aldrich, H. (1999). Organizations evolving. London: Sage.

- Ball, P., Monaco, G., Schmeling, J., Schartz, H., & Blanck, P. (2005). Disability as diversity in Fortune 100 companies. *Behavioral Sciences and the Law* 23 (1): 97–121.
- Blanck, P. (1994). Communicating the Americans with Disabilities Act: Transcending compliance—A case report on Sears Roebuck & Co. White Paper. Washington, DC: Annenberg Washington Program in Communications Policy Studies of Northwestern University.
- —. (1996). Communicating the Americans with Disabilities Act: Transcending compliance— 1996 follow-up report on Sears Roebuck & Co. Washington, DC: The Annenberg Washington Program in Communications Policy Studies of Northwestern University.
- Blanck, P., Hill, E., Siegal, C., & Waterstone, M. (2003). *Disability civil rights law and policy*.St. Paul, MN: Thomson/West.
- Blanck, P., & Marti, M. W. (1997). Attitudes, behavior, and the employment provisions of the Americans with Disabilities Act. *Villanova Law Review* 42 (2): 345–408.
- Boyle, M. A. (1997). Social barriers to successful reentry into mainstream organizational culture: Perceptions of people with disabilities. *Human Resource Development Quarterly* 8 (3) (Fall): 259–68.
- Brancato, C. K., & Patterson, D. J. (1999). Board diversity in U.S. corporations: Best practices for broadening the profile of corporate boards. Rep. No. 1230-99-RR. New York: The Conference Board.
- Colella, A. (2001). Coworker distributive fairness judgments of the workplace accommodation of employees with disabilities. *Academy of Management Review* 26: 100–116.

- Colella, A., DeNisi, A., & Varma, A (1998). The impact of ratee's disability on performance judgments and choice as partner: The role of disability-job fit stereotypes and interdependence of rewards. *Journal of Applied Psychology* 83: 102–11.
- Cornell University School of Industrial and Labor Relations. (2007). Management programs: Diversity management certificate. Ithaca, NY. Retrieved July 3, 2007 from: http://www.ilr. cornell.edu/mgmtprogr/certificates/dm/diversityManagement.html
- Edelman, L. B. (1992). Legal ambiguity and symbolic structures: Organizational mediation of civil rights laws. *American Journal of Sociology* 97 (6): 1531–76.
- Fuller, S. R., Edelman, L. B., & Matusik, S. (2000). Legal readings: Employee interpretation and enactment of civil rights law. *Academy of Management Review* 25 (1): 200–16.
- Gandz, J. (2001). *A business case for diversity*. Retrieved August 31, 2004, from http://www.equalopportunity.on.ca/eng_g/documents/BusCase.html
- Grutter v. Bollinger, 539 U.S. 306 (2003).
- Information Technology Association of America (ITAA). (2003). *Report of the ITAA Blue Ribbon Panel on IT diversity*. Retrieved on September 1, 2006, from http://www.itaa.org/workforce/ docs/03divreport.pdf
- Klein, D., Schmeling, J., & Blanck, P. (2005). Emerging technologies and corporate culture at Microsoft: A methodological note. *Behavioral Sciences and the Law* 23.
- Knowling, R. (2003). Keynote speech. 2003 National IT Workforce Convocation, Arlington, VA.
- Kochan, T., Bezrukova, K., Ely, R., Jackson, S., Joshi, A., Jehn, K., et al. (2003). The effects of diversity on business performance: Report of the diversity research network. *Human Resource Management* 42: 3–21.
- National Organization on Disability. (2003b). *Workplace diversity programs enhance employment of people with disabilities, survey finds*. Retrieved August 31, 2004, from http://www.nod.org
- —. (2003a). EEOC sues the Home Depot for terminating employee with disability. Retrieved August 31, 2004, from http://www.nod.org
- Ramirez, S. A. (2000). Diversity and the boardroom. *Stanford Journal of Law, Business and Finance* 6(1): 85–133.
- Sandler, L., & Blanck, P. (2004). Accessibility as a corporate article of faith at Microsoft: Case study of corporate culture and human resource dimensions. *Behavioral Sciences and the Law* 23: 39–64.

- Schartz, H., Schartz, K., Hendricks, D. J., & Blanck, P. (2006). Workplace accommodations: Empirical study of current employees. *Mississippi Law Journal* 75: 917–43.
- Schur, L., Kruse, D., & Blanck, P. (2005). Corporate culture and the employment of people with disabilities. *Behavioral Sciences and the Law* 23: 3–20.
- —. (2006, August). Corporate culture and the experiences of employees with disabilities. Working paper, School of Management and Labor Relations, Rutgers University.
- Society for Human Resource Management (SHRM). (2004). *What is the "business case" for diversity*? Retrieved August 31, 2004, from http://www.shrm.org/diversity.
- Stone, D., & Colella, A. (1996). A model of factors affecting the treatment of disabled individuals in organizations. *Academy of Management Review* 21: 352–401.
- Zwerling, C., Whitten, P. S., Sprince, N. L., Davis, C. S., Wallace, R. B., et al. 2003. Workplace accommodations for people with disabilities: National health interview survey disability supplement. *JOEM* 45 (5): 517–25.

Universal Design Employment Issue Brief #6 National Council on Disability

Abstract and Introduction

The concept of Universal Design (UD) originated in the 1970s from architect Michael Bednar's belief "that everyone's functional capacity is enhanced when environmental barriers are removed [and] that a new concept beyond accessibility was needed that would be broader and more universal" (Adaptive Environments 2003). By 1987, architect Ron Mace, who used a wheelchair because of childhood polio, and the disability community argued that special-purpose designs and accessibility laws unintentionally stigmatize people with disabilities—causing them to stand out and feel unequal (Adaptive Environments 2003; Johnstone 2003). In contrast to assistive technologies, which aid the user in overcoming barriers in an original design, UD contemplates flexibility in the original design to meet broad and divergent needs (Bowe 2000; Rose and Meyer 2000; Casper and Leuchovius 2005). By the early 1990s, the term "Universal Design largely was understood as "the design of *products and environments* to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design" (Mace 1997, emphasis added).

The Center for Universal Design at North Carolina State University in 1997 articulated seven core principles of universal design: 1) Equitable Use, 2) Flexibility in Use, 3) Simple, Intuitive Use, 4) Perceptible Information, 5) Tolerance for Error, 6) Low Physical Effort, and 7) Size and Space for Approach and Use (Center for Universal Design 2006a).¹⁹ UD is consistent with the paradigm that disability is a social construct caused by the inadequacies of such things as the built environment rather than inherent in the person (Evans et al. 2005). Examples of UD best practices in product and environmental design, especially for use by consumers who are elderly or have disabilities, have become commonplace.²⁰

In 2004, Congress passed the Assistive Technology Act, codifying UD into federal law.²¹ Today, the Individuals with Disabilities Education Act (IDEA) (reauthorized in 2004), the No Child Left Behind Act (NCLB), federal research and training to maximize full inclusion of people with disabilities (Vocational Rehabilitation), and federal technology policy rely on a common UD definition: "a concept or philosophy for designing and delivering products *and services* that are usable by people with the widest possible range of functional capabilities, which include products and

services that are directly accessible (without requiring assistive technologies) and products *and services* that are interoperable with assistive technologies."²²

Over the past decade, the notion that the principles of UD apply to *programs, practices, and services,* in addition to products and the physical environment, emerged in the contexts of new practices in education,²³ information technology (IT),²⁴ the consumer marketplace,²⁵ research,²⁶ and employment.²⁷ This brief presents an overview of innovative applications of UD-based policies and practices, and those in current use, for enhancing the employment outcomes of people with disabilities. This brief then identifies specific gaps between the new applications and current use and also offers additional resources for further reading.

The State of the Art

Good design enables, while bad design disables, irrespective of the user's abilities. (Sandhu 2000, 85)

The principles of Universal Design have evolved into industry, government, product, building, and environmental design standards, curricula for preparing design professionals, the National Instructional Materials Accessibility Standard (NIMAS),²⁸ and strategies for delivering educational curricula.²⁹ Trade groups have evaluated anticipated UD impact in the workplace (Saito 2005). Community groups have partnered with local businesses to raise the lay awareness of UD for construction and remodeling (Price 2004). Yet, among the disability community, arguably where UD is best known and accepted, the application of UD beyond the products and services of electronic and information technology (E&IT)³⁰ and environmental design³¹ is not well known.

The application of UD principles to the workplace, hiring practices, trainings, materials, communications, and daily job tasks is very new. The Japan Facility Management Promotion Association has supported research regarding the knowledge and integration of UD in the workplace and UD impact on organizational outcomes, asset value of facilities, and corporate image (Saito 2005, 2–4). Though Japanese facilities managers generally are more familiar with UD principles than are their U.S. counterparts, the anticipated advantages of implementing UD are greater in the United States. Half of surveyed U.S. managers foresee UD implementation a) improving worker productivity/satisfaction (50%), b) promoting flexibility in employment (56%), and c) reducing legal risks and workers' compensation claims (50%) (Saito 2005, 8, 10). More than one-third of these managers foresee a) reducing alteration and maintenance costs (43%), b) improving customer satisfaction (36%), and c) enhancing corporate image (41%). Much can be done to improve the meaningful participation of a greater diversity of skilled employees by applying UD principles. For instance, a workplace policy that embraces NIMAS prepares every form of documentation—such as staff manuals, staff and service directories, training materials, job descriptions, interoffice memoranda, human resource and benefit program applications, and hazardous materials signage—in digital electronic text easily converted into speech (e.g., read aloud by screen-reader), Braille, large print, closed captioning, multiple languages (written and spoken), and other alternative formats (Rose and Meyer 2000). Similarly, when these materials are prepared using UD principles, they can include "hyperlinks to definitions, elaborations, and related media for more in-depth understanding" (Rose and Meyer 2000).

Training a workforce, retraining for job changes, and ongoing training for skill or professional advancement are opportunities to build a stronger workforce by using UD principles to engage a wider diversity of employees. In place of traditional pencil-paper, desk-classroom instruction, universally designed trainings a) utilize materials in varying and redundant media (e.g., lecture content crafted in a text document that is available on disk or a training Web site, permitting the learner to review the material in individualized formats); b) offer trainees varying opportunities to demonstrate knowledge/skill acquisition (e.g., written, spoken, work product, demonstration, electronic PowerPoint or SMART Board³²) (Bowe 2000: 66–67); and 3) provide for synchronous and asynchronous geographically distributed learning opportunities not dependent on a single physical learning environment (e.g., distance learning modules, Web-conferencing, instant messaging, chat classrooms, VoIP (Voice over Internet Protocol), electronic mailing lists, and email distribution/submission of materials).³³ When learners send, receive, access, and develop course-work using their personal or assigned work computer, which they have configured to accommodate their individualized learning needs and styles, they enjoy meaningful access to and engagement with the curriculum (Bowe 2000, 67).

To provide training in the use of these standards, colleges and research centers offer certificate and degree programs, and workshops and seminars, in traditional classroom settings and via Internet Web-based learning. Several examples include master's and doctoral programs in IT and telecom product design for engineering students, bachelor's coursework in "Design for Human Disability and Aging" (Trace Research and Development Center 2003), training across all design disciplines including environmental, product, and communication (Universal Design Center 2002), technical expertise and training in the UD design of architecture, products, and facilities management (Center for Inclusive Design and Environmental Access 2005), training in use of UD instructional practices (Center for Applied Special Technology 2006), training to manage parks and recreational facilities with UD principles (National Center on Accessibility 2006), degree and certificate programs for inclusive design "to remove barriers in the social, technical, political and economic processes underpinning building and design" (Universal Design Education Online 2004), and programs that "integrate universal design into the curriculum for all disciplines throughout undergraduate and graduate programs" (Center for Universal Design 2006a).

The State of the World

Most UD applications in the employment context address environmental design and product use—the job space and tools (or the "what") used to do the job. Yet, employers, entrepreneurs, and office managers have the opportunity to draw on this wealth of knowledge to greatly improve the inclusion of employees with diverse skills and abilities, and their productivity and longevity, in the workforce. When constructing or redesigning every aspect of physical workspace, such as offices, break rooms, restrooms, parking lots, pathways, entrances, and transportation, federal standards and guidelines provide a floor of accessibility. These standards include a) the Uniform Federal Accessibility Standards, b) ADA Accessibility Guidelines (ADAAGs), c) the Section 508 Standards for Electronic and Information Technology, d) the Telecommunications Act Accessibility Guidelines (U.S. Access Board 2006), and e) the NIMAS publishing standards for accessible curricular materials.³⁴

Research-based independent, trade, foreign, nonprofit, and commercial standards enhance the possibilities of universal access. For instance, when planning and implementing information and communications technology (ICT) infrastructure and practices, the World Wide Web Consortium (W3C) provides Web Content Accessibility Guidelines (WCAGs), Authoring Tool Accessibility Guidelines (ATAGs) (i.e., software used to produce Web pages and content), and User Agent Accessibility Guidelines (UAAGs) (e.g., Web browsers and media players), which demonstrate UD principles and arguably offer practices for more inclusive Internet access than do the 508 standards (World Wide Web Consortium 2005b). The University of Minnesota Accessibility of Information Technology (AIT) guidelines reach beyond IT and Web design into computer facilities, classrooms, libraries and research facilities, and online distance instruction (University of Minnesota 2005). More than a dozen nations have federal and state level laws and policies addressing ICT accessibility (World Wide Web Consortium 2005a). Other standards specifically address recreational activities and environments (National Center on Accessibility 2003) and environments unique to the needs of children (Center for Accessible Housing 1992). As many businesses become more reliant on paperless Web-based resources, Web developers can implement concrete standards to make company online resources (e.g., human resource forms and product descriptions) available to the widest variety of employees and consumers, again emphasizing the flexibility of digital electronic text. Office furniture and machines, tools of the trade, and storage also can be designed with built-in flexibility.³⁵ The principles of UD provide valuable guidance to engineers in product design, such as when using computer-aided design (Nighswonger 2001), and industrial engineers have designed a survey instrument to assess how well products comply with UD principles (Beecher and Paquet 2005).

Gaps in Policies

The tools of universal design have become quite sophisticated, from design standards to evaluation, from best practices to curriculum and training, and from products to services. Employers have only to pick up these tools and apply them. Practicing the principles of UD offers employers opportunities to better train, hire, and maintain a skilled workforce, in part, by making training and employment available to a much broader variety of human talent, frequently excluded or overlooked because of such characteristics as age, disability, language, and culture. It is noteworthy that though accessibility is generally a precursor to, or fundamental assumption of, the greater inclusiveness of UD, in the IT context the distinction may be less clear (Iwarsson and Stahl 2003). For instance, in practice, present technology does not permit the creation of a universally designed Web site that would free the user with a visual impairment from reliance on assistive technologies such as screen-readers or magnifiers. Nonetheless, applying UD principles in the IT sector to operating systems, applications, and Web page documents may enhance access to information by people with disabilities without expensive and complex assistive technology.

Finally, as there is no legal mandate for UD in the United States, the challenge becomes marketing these tools to businesses and employers. However, if we look to efforts outside this country, we find examples of businesses and corporations buying into UD (e.g., Toyota, Fuji, Panasonic), drawn in by "the economic good sense of paying attention to the needs of . . . user groups," which may offer us meaningful lessons.³⁶

Additional Resources

Abascal, J., & Nicolle, C. (2005). Moving towards inclusive design guidelines for socially and ethically aware HCI. *Interacting Computers* 17: 484.

- Bar, L., & Galluzzo, J. (1999). *The accessible school: Universal design for educational settings*.ERIC Document No. 434503. Berkeley, CA: MIG Communications.
- Beecher, V., & Paquet, V. (2005). Survey instrument for the universal design of consumer products. *Applied Ergonomics* 36: 363.
- CEN/CENELEC. (2002, January). *Guide 6: Guidelines for standards developers to address the needs of older persons and people with disabilities. Brussels, Belgium.* Retrieved July 3, 2007 from http://www.cen.eu/cenorm/businessdomains/businessdomains/isss/activity/cclcgd006. pdf
- Center for Universal Design. Welcome. Raleigh: North Carolina State University. Retrieved February 14, 2006, from http://www.ncsu.edu/www/ncsu/design/sod5/cud/
- Chow, R. (2000). Long-term care for aging inmates. Innovations in Aging, 29(2), 11-15.
- McClintic, H., & Williams, J. M. (2003). *Assistive technologies: Expanding a universe of possibilities.* Pittsburgh, PA: Bender Consulting Services, Inc.
- National Council on Disability (NCD). (2004, October 28). Design for inclusion: Creating a new marketplace. Retrieved from http://www.ncd.gov/newsroom/publications/2004/pdf/ newmarketplace.pdf
- National Library Serving the Blind and Physically Handicapped. (1994, June). *NLS reference bibliographies—Accessibility: A selective bibliography.* Retrieved June 27, 2007 from http://www.loc.gov/nls/reference/bibliographies/accessib.html
- Oravec, J. A. (2002). Virtually accessible: Empowering students to advocate for accessibility and support universal design. *Library Hi Tech* 20: 452.
- Wilkerson, B. (2001, November). The business case for accessibility: How accessibility-awareness strengthens your company's bottom line. Retrieved June 27, 2007 from http://www. equalopportunity.on.ca/userfiles/item/23549/BusAccess.pdf

References

- Adaptive Environments. (2003). *History of universal design*. Retrieved June 27, 2007 from http://www.adaptenv.org/index.php?option=Content&Itemid=26
- American Foundation for the Blind. (2006). *National centers to develop the National Instructional Materials Accessibility Standard (NIMAS)*. Retrieved June 27, 2007 from http://www. afb.org/Section.asp?SectionID=58&TopicID=255&DocumentID=2780

Armstrong, L. (2005, July 2). Remodeling for the future. Business Week, 3942, 104.

- Association on Higher Education and Disability. (2005). *Leadership Institute on Universal Design*. Retrieved June 27, 2007 from http://www.ahead.org/training/online/udinstitute.htm
- Beecher, V., & Paquet, V. (2005). Survey instrument for the universal design of consumer products. *Applied Ergonomics* 36: 363, 369.
- Bors, P., et al. (2004). Community design: The next step to an active society? *Journal of Active Aging* (January–February).
- Bowe, F. G. (2000). *Universal design in education: Teaching nontraditional students*. Retrieved June 27, 2007 from http://www.udeducation.org/teach/teaching_techniques/bowe.asp
- Bühler, C. (2001). Empowered participation of users with disabilities in R&D projects. *International Journal of Human-Computer Studies* 55.
- Burgstahler, S., et al. (2004). Making distance learning courses accessible to students and instructors with disabilities: A case study. *Internet & Higher Education* 7.
- Casper, B., & Leuchovius, D. (2005). Universal design for learning and the transition to a more challenging academic curriculum: Making it in middle school and beyond. *Parent Brief* (April). Retrieved June 27, 2007 from http://www.ncset.org/publications/parent/ NCSETParent_Apr05.pdf
- CEN/CENELEC. (2002). *Guide 6: Guidelines for standards developers to address the needs of older persons and people with disabilities.* Retrieved July 3, 2007 from http://www.cen. eu/cenorm/businessdomains/businessdomains/isss/activity/cclcgd006.pdf
- Center for Accessible Housing. (1992). *Recommendations for accessibility standards for children's environments: Task Five technical report,* EC 302476, ED 363 026, N.C. State University. Retrieved June 27, 2007 from http://www.eric.ed.gov/ERICDocs/data/ericdocs2/ content_storage_01/000000b/80/23/3f/82.pdf
- Center for Applied Special Technology. (2006). *Current offerings*. Retrieved June 27, 2007 from http://www.cast.org/pd/institute/index.html
- Center for Applied Special Technology. (2005). *NIMAS Technical Specification*. Retrieved June 27, 2007 from http://nimas.cast.org/about/technical/index.html
- Center for Inclusive Design and Environmental Access. (2005). *Projects*. State University of New York, Buffalo. Retrieved June 27, 2007 from http://www.ap.buffalo.edu/idea/Projects/ index.asp

- Center for Universal Design. (2006a). *About UD: Universal design principles*. N.C. State University. http://ncsudesign.org/content/
- ----. (2006b). Education and training. N.C. State University. http://ncsudesign.org/content/
- Chow, R. (2000). Long-term care for aging inmates. Innovations in Aging, 29(2), 11-15.
- Cotelco. (2006). *Collaboratory on technology enhanced learning communities*. Retrieved June 27, 2007 from http://cotelco.syr.edu
- Danford, G. S. (2003). Universal design: People with vision, hearing, and mobility impairments evaluate a model building. *Generations* 27: 91–94.
- Demirbilek, O., & Demirkan, H. (2004). Universal product design involving elderly users: A participatory design model. *Applied Ergonomics* 35: 361, 363–67.
- Edwards, N. (2003). Predictors of bath grab-bar use among community-living older adults. *Canadian Journal of Aging* 22.
- Evans, N. J., et al. (2005). Encouraging the development of disability allies. *New Directions in Student Services* (July).
- Hansen, E. G., et al. (2005). Accessibility of tests for individuals with disabilities within a validity framework. *System* 33.
- Iwarsson, S., & Stahl, A. (2003). Accessibility, usability, and universal design—Positioning and definition of concepts describing person-environment relationships. *Disability & Rehabilitation* 25: 57, 62.
- Johnstone, C. J. (2003). Improving validity of large-scale tests: Universal design and student performance (Technical Report 37), 3. National Center for Educational Outcomes. Retrieved June 27, 2007 from http://www.education.umn.edu/NCEO/OnlinePubs/TechReport37.pdf
- Lowe's. (2006). Universal Design in Storage and Home Organization. Retrieved June 27, 2007 from http://www.lowes.com/lowes/lkn?action=howTo&p=CommLib/ UniversalDesignStorage.html
- Mace, R. (1997). *What is universal design? Definition*. Center for Universal Design, N.C. State University. Retrieved June 27, 2007 from http://ncsudesign.org/content/
- Marcus, A. (2003). Universal, ubiquitous, user-interface design for the disabled and elderly. *Interactions*, March–April, 24.
- Marsden, J. P., et al. (2001). Therapeutic kitchens for residents with dementia. *American Journal* of Alzheimer's Disease & Other Dementias 16.

Maynard, N. F. (2003). Mass appeal. Builder 26.

- McClintic, H., & Williams, J. M. (2003). *Assistive technologies: Expanding a universe of possibilities.* Retrieved June 27, 2007 from http://www.atn-ctcf.org./home.cfm
- McLeister, D. (1999). An open door for universal design. Professional Builder (March).
- Meyers, A. R., & Andresen, E. M. (2000). Enabling our instruments: Accommodation, universal design, and access to participation in research. *Archives Physical Medicine and Rehabilitation* 81 (Supp. 2000): S5–S8.
- Müller, E., & Tschantz, J. (2003, April). Universal design for learning: Four state initiatives. *Quick Turn Around*. Retrieved June 27, 2007 from http://www.nasdse.org/publications/udl.pdf
- National Center on Accessibility (NCA). (2003). *About NCA*. Retrieved June 27, 2007 from http://www.ncaonline.org/about/
- —. (2006). The access coordinators training: Introduction to accessibility management in parks and recreation. Retrieved June 27, 2007 from http://www.ncaonline.org/training/ access_coordinators.shtml
- National Council on Disability (NCD). (2004). *Design for inclusion: Creating a new marketplace.* Retrieved June 27, 2007 from http://www.ncd.gov/newsroom/publications/2004/pdf/ newmarketplace.pdf
- National Endowment for the Arts. (2006). *First juried collection of universal design exemplars*. Retrieved March 30, 2006 from http://www.nea.gov
- Nighswonger, G. (2001, October). Using computer-aided design to enhance product development. *Med. Device & Diagnostic Indus*. Retrieved June 27, 2007 from http://www.devicelink. com/mddi/archive/01/10/006.html
- O'Hara, K. (2004). "Curb cuts" on the information highway: Older adults and the Internet. *Technical Communications Quarterly* 13.
- Oravec, J. A. (2002). Virtually accessible: Empowering students to advocate for accessibility and support universal design. *Library Hi Tech* 20.
- Price, C. A., et al. (2004). Implementing a university-community-retail partnership model to facilitate community education on universal design. *Gerontologist* 44.
- Rose, D., & Meyer, A. (2000). Universal design for learning. Associate Editor column. *Journal of Special Education Technology*, Winter. Retrieved June 27, 2007 from http://jset.unlv.edu/15.1/ asseds/rose.html

- Saito, Y. (2006). Awareness of universal design among facility managers in Japan and the United States. *Automation in Construction* 15, 462-478.
- Sandhu, J. S. (2000). Citizenship and universal design. Ageing International, Spring.
- SMART Technologies. (2006). SMART Board Interactive Whiteboards: Front Projection. Retrieved June 27, 2007 from http://www2.smarttech.com/st/en-US/Products/ SMART%2BBoards/Front%2BProjection/Default.htm
- Taylor, L., & Polk, C. (2000, August 1). Office machines everyone can use. *GovExec.com*. Retrieved June 27, 2007 from http://www.govexec.com/features/0800/0800specials4.htm
- Trace Research and Development Center. (2003). *Trace Center*. University of Wisconsin-Madison. Retrieved June 27, 2007 from http://trace.wisc.edu
- Universal Designers & Consultants, Inc. (2005). New products. *Universal Design Newsletter*, 7(8), 13. Takoma Park, MD. Retrieved from http://www.universaldesign.com/pdfs/Oct_2005.pdf
- Universal Design Center. (2002, March). *Overview*. Sheridan College. Retrieved June 27, 2007 from http://www.sheridanc.on.ca/udc/content/overview.html
- Universal Design Education Online. (2004). *Certificate programs in universal design*. Retrieved June 27, 2007 from http://www.udeducation.org/learn/ShowCertificateItems.asp
- University of Minnesota. (2005). *Accessibility of information technology*. Retrieved June 27, 2007 from http://cap.umn.edu/ait/index.html
- U.S. Access Board. (2006). *Guidelines and standards*. Retrieved March 20, 2006, from http:// www.access-board.gov/gs.htm
- Wattenburg, T. (2004). Beyond legal compliance: Communities of advocacy that support accessible online learning. *Internet & Higher Education* 7.
- Wilcox, S. B. (2003, January). Applying universal design to medical devices. *Med. Device & Diagnostic Indus*. Retrieved June 27, 2007 from http://www.devicelink.com/mddi/archive/03/01/006.html
- Wilkerson, B. (2001). *The business case for accessibility: How accessibility-awareness strengthens your company's bottom line*. Retrieved June 27, 2007 from http://www.equalopportunity. on.ca/userfiles/item/23549/BusAccess.pdf
- World Wide Web Consortium. (2005a). *Policies relating to Web accessibility*. Retrieved June 27, 2007 from http://www.w3.org/WAI/Policy/
- —. (2005b). Web Accessibility Initiative site map. Retrieved June 27, 2007 from http://www. w3.org/WAI/sitemap.html

Self-Employment and Disability Employment Issue Brief #7 National Council on Disability

Abstract

Close to one-eighth of employed people with disabilities are self-employed, compared with only one-tenth of employed people without disabilities. Self-employment is an option for many people with disabilities who want to work in either a part-time or a full-time capacity but are unable or unwilling to do so for a multitude of reasons in traditional employment settings. Individuals with disabilities who want to become self-employed face not only the obstacles confronting all entre-preneurs, but also additional issues and obstacles such as attitudinal barriers, the possible loss of government-issued cash benefits and health care, and a lack of assistance and support from self-employment and small business entities. This brief focuses on the available evidence on self-employment among individuals with disabilities, and addresses some of the barriers and concerns that have been raised in the disability and business communities regarding individuals with disabilities who are seeking self-employment.

Introduction

"Allen, who previously worked for a large electronics company, spent approximately 40 hours per week at that job. After the onset of his disability, Allen began his own electronic repair business and was required to work 60 hours per week to maintain it. Allen said that although he works longer hours, he enjoys the flexibility of being self-employed and is able to design his work and home life schedules." (Blanck et al. 2000, 1632)

"Ann Morris Bliss, President, Ann Morris Enterprises, Inc.: In 1985, Ms. Morris Bliss developed a mail order catalogue company that sells a wide range of innovative products for people with vision loss. The company generates more than half a million dollars in revenue and over the years has employed a number of people, including individuals with disabilities. Ms. Morris Bliss is completely blind from a process that began from complications at birth." (ODEP 2005) Individuals with disabilities are only half as likely as those without disabilities to be employed (38% compared with 78% among working-age adults) (Cornell RRTC 2005). Among those who are employed, about one-eighth of people with disabilities are self-employed, compared with one-tenth of people without disabilities, as shown in the following 2005 numbers from the U.S. Census Bureau.³⁷ The rate of self-employment is highest among those reporting a work-limiting disability:

Percentage of Working-aged Adults Who Are Self-Employed

| Persons without a Disability | 10.4% |
|--|-------|
| Persons with a Disability | |
| All Types of Impairments | 12.3% |
| Vision or Hearing Impairment | 13.1% |
| Physical Impairment | 13.2% |
| Mental Impairment | 10.2% |
| Difficulty Inside the Home | 12.7% |
| Difficulty Getting Around Outside the Home | 11.6% |
| Work Limitation | 14.7% |

Self-employment is frequently viewed as an option when there are high rates of unemployment in the economy. Considering that people with disabilities have the lowest rate of employment of any identified group, it should not be surprising that self-employment is used as an option more frequently by individuals with disabilities than by individuals in the general population (Rizzo 2002). The Rehabilitation Services Administration Choice Projects, which were five-year demonstration projects in the mid-1990s, had the goals of increasing consumer participation and choice within the rehabilitation system. The data from these projects found that when participants had the ability to choose their potential employment outcome, between 20 and 30 percent of the participants chose self-employment (Rizzo 2002; Arnold and Ipsen 2005).

For any individual who decides to become self-employed, there are many considerations and potential barriers to address in the initial planning process. For individuals with disabilities, there may be additional considerations and barriers that include attitudinal obstacles, the possible loss of cash benefits and health care, the possible loss of housing and other subsidies, the inability to access capital that is needed to start a business, a lack of available information on how to start a

business and write a business plan, and a lack of assistance and support from self-employment and small business entities (ODEP 2005). Historically, individuals with disabilities who chose self-employment as their path to financial independence and self-sufficiency have been underserved by both the social service agencies that serve individuals with disabilities and the agencies that serve potential entrepreneurs (71 FR 29174–29175).

This brief focuses on the available evidence addressing the potential barriers and concerns that have been raised in the disability and business community regarding individuals with disabilities seeking self-employment.

Reasons for Choosing Self-Employment

Individuals with disabilities who are self-employed cite many reasons for choosing this path to financial independence and economic self-sufficiency, including the following:

- Flexibility and independence—wanted to "work for myself"
- Identified need for a product or service
- Flexible hours and working conditions that accommodated the individual's disability
- Freedom from disability- and access-related barriers relating to transportation, communication, physical access, and personal-assistance needs
- Ability to earn more money, control amount of income
- Career path with unlimited growth opportunity

(Research and Training Center on Disability in Rural Communities, 2001; Work Incentives Support Center, 2004; ODEP, n.d.; Arnold & Ipsen 2005; Hagner & Davies 2002)

Many of these reasons are also given by people without disabilities for choosing selfemployment—in particular, over two-thirds of self-employed individuals without disabilities say that their major reason for self-employment is flexibility, being their own boss, or the ability to earn more money (Schur 2003). Some of the general reasons for individuals seeking selfemployment, however, are especially salient for individuals with disabilities. In particular, many individuals with disabilities need some flexibility in their schedules to accommodate medical or physical therapy appointments, or greater physical demands or time spent on self-care. In addition, reliance on public transportation may make rigid work schedules difficult and increase the attractiveness of setting one's own schedule and/or working for oneself at home. This appears to be a factor in the high rate of self-employment among workers with disabilities: Data from 2005 shows that 25 percent of self-employed individuals with disabilities usually work at home, compared with 20 percent of self-employed individuals without disabilities.³⁸ (For discussion of how flexibility influences people with disabilities to take part-time, temporary, and home-based jobs, see the "Work-Life Balance and Alternative Work Arrangements" issue brief.)

Individuals with disabilities who have chosen to become self-employed tend to be satisfied with it. A study of self-employed individuals with disabilities found the following:

91 percent said they enjoyed operating their own business

73 percent said they were satisfied with their business

56 percent reported that the business met or exceeded their initial expectations and was successful

52 percent said that their disability moderately to substantially affected how they conducted their business day to day (Montana RRTC 2001)

Whereas the majority of self-employed individuals with disabilities are satisfied with selfemployment, it also appears that individuals with disabilities are more likely than those without disabilities to feel limited to self-employment. Almost one-sixth (15%) of self-employed independent contractors with disabilities said they would prefer to work for someone else, compared with almost one-tenth (9%) of independent contractors without disabilities (Schur 2003). In addition, self-employed individuals with disabilities were more than twice as likely as employees with disabilities to report encountering job-related discrimination within the past five years (26% compared with 12%), indicating that many of these individuals may turn to self-employment after perceiving discrimination in finding jobs in traditional employment settings. Being constrained to self-employment may be more common among those with intellectual impairments: Hagner and Davies (2002) studied eight small business owners with labels of intellectual disabilities and found that five of the eight chose to enter self-employment because of a perceived lack of other opportunities for employment. Blanck et al. (2000) also reported similar results in their study of Entrepreneurs of Disabilities in Iowa.

Relationships with Social Service or Rehabilitation Agencies

Title V of the 1998 Workforce Investment Act recognizes and emphasizes self-employment as a legitimate employment outcome for clients in the vocational rehabilitation (VR) system (Arnold

and Ipsen 2005; 71 FR 29175). Traditionally, disability service providers tend to distrust the business community and find that business services and support systems are not receptive to individuals with more severe disabilities who are looking to enter self-employment (Rizzo 2002). To address this concern, rehabilitation and social service agencies are increasingly implementing strategies and establishing partnerships with other public and private sector agencies to advance self-employment as an effective route to economic independence and self-sufficiency for their clients (ODEP 2005). For example, a survey of Small Business Development Centers (SBDCs) shows that although only 8 percent of SBDCs had formal interagency agreements with rehabilitation agencies, the majority of the respondents thought it was important to have the assistance of the rehabilitation agencies when working with people with disabilities (Ipsen, Arnold, and Colling 2005). SBDCs that have interagency agreements at either the local or state level reported higher rates of referrals and more experience in how to meet the needs of individuals with disabilities looking to enter self-employment (Ipsen, Arnold, and Colling 2005).

In 1992, a study of VR agencies found that 24 percent did not have a written policy regarding selfemployment, but a follow-up study in 2002 found that only one state did not have a policy regarding self-employment for its clients (Arnold and Ipsen 2005). This evidence seems to suggest that VR is beginning to view self-employment as a viable employment outcome for individuals with disabilities. Frequently, however, rehabilitation service providers decide whether a client should pursue self-employment solely on the basis of the client's functional limitations and not on the basis of good business planning and other factors (Rizzo 2002; Griffin and Hammis 2002). To truly evaluate an individual's potential for success in self-employment, VR and other rehabilitation service agencies must assess the client's personal abilities, strengths and weaknesses; business expertise; and feasibility of the proposed business (Griffin and Hammis 2002).

As VR and other rehabilitation service providers do not have the necessary business expertise to assess the feasibility of the proposed business in the evaluation process, the service provider should establish a relationship with a business professional who is able to provide the necessary business counseling to the client in the beginning phases of planning for self-employment. This relationship should be viewed as a collaborative partnership in which the business professional can evaluate the feasibility of the proposed business and the rehabilitation service provider can assess the individual's strengths and weaknesses with regard to self-employment. For example, an individual with a disability interested in self-employment can access the SBDCs for assistance with reviewing business plans (Griffin and Hammis 2002) or Service Corps of Retired Executives mentors for free business mentoring.

Benefits Planning

One concern of many individuals with disabilities considering self-employment is the threat of losing cash benefits such as Social Security Disability Insurance and health coverage from Medicare or Medicaid if their income exceeds the prescribed thresholds for these programs. To evaluate this possibility, the individual looking to become self-employed needs to carefully plan in consultation with benefits counselors who have the necessary expertise and training (Blanck et al. 2000). In addition, it is important that the benefits counselor does not advise the individual on business development or tax-related issues, as these issues are best handled by either a business or accounting professional (Work Incentives Support Center, 2004).

To assist individuals with disabilities in understanding the relationship between their benefits and employment, the Social Security Administration (SSA) has launched the Work Incentives Planning and Assistance (WIPA) program (SSA 2006). This program replaces the Benefits Planning and Assistance Outreach program previously available through SSA. This new program is focused on improving community partnerships that will better serve the needs of individuals with disabilities (SSA 2006). The program is described at http://www.ssa.gov/work/WIPARFA_FAQ.html.

In addition, SSA continues to promote self-employment for individuals with disabilities through the availability of a Plan for Achieving Self Support (PASS). The PASS allows the individual to leverage his or her Supplemental Security Income (SSI) payments for use in pursuing career goals, including becoming self-employed, because a PASS provides SSI recipients with a vehicle to accumulate the cash necessary for the start-up and operation of a business without putting the individual's SSI or Medicaid coverage in jeopardy (Griffin 2002; 71 FR 29175; Hagner and Davies 2002). PASS is one of the few financial options available to individuals with disabilities that provide the individual with the actual cash necessary for the daily operation expenses of the business (Griffin 2002). In addition, a PASS allows SSI recipients with disabilities to get around the \$2,000 limit in accumulated cash resources by allowing them to accumulate operating cash and other capital necessary for the operation of the business, and unlimited net worth in the business, which can lead to long-term financial independence and economic self-sufficiency (Griffin and Hammis 2002). A trained benefits planning counselor can assist the individual with establishing a PASS.

Individuals with disabilities who receive Social Security benefits may find that these benefits provide the needed cushion during the start-up phase of the business by giving the individual some income to cover his or her daily living expenses so that the business does not need to generate additional income but simply needs to reach the break-even point in the cash flow analysis (Griffin and Hammis 2002). For individuals receiving benefits, it is critical when developing the cash flow and profit analysis in the business plan that the individual consult with a benefits counselor who has knowledge of the regulations pertaining to Social Security and Medicare (Griffin and Hammis 2002).

Optimizing Success

The term *independent business owner* is a myth, given that almost all small businesses in the United States succeed because they have supports in the form of family and friends, investors, marketing specialists, attorneys, accountants, suppliers, and customers (Griffin 2002, 63). The same types of supports are necessary for small businesses owned by individuals with disabilities. For individuals with disabilities, sometimes the supports will be business related and, at other times, disability related. "Regardless, the best businesses are interdependent" (Griffin 2002). The ability of an individual to sustain successful self-employment is a function of the identification and availability of the needed disability and business supports and not the individual's functional limitations (Rizzo 2002; Blanck et al. 2000). The philosophy that is often seen in rehabilitation service agencies is that those who require supports are incapable of making informed decisions regarding the running of a business; this underlying assumption has been one of the major barriers to the success of individuals with disabilities in self-employment (Rizzo 2002).

Unlike the rehabilitation service agencies, the business community has long recognized that every entrepreneur—with or without a disability—is an individual with different skills, strengths, and personality traits, and that to be successful in self-employment, it is necessary to be aware of one's limitations and needs and then either seek out the training needed to build the necessary skills or find other sources of support for those limitations (Rizzo 2002). Sources of support for any individual—with or without a disability—might include accounting services and tax advisors, legal assistance and advice, technical assistance in product development or delivery, money management and access to capital, and professional organizations and business advisory services (Rizzo 2002). For individuals with disabilities, additional supports may be needed in the form of personal-care assistants, job coaches, and other supports for disability-related needs.

Besides the need for benefits counseling and identification of the necessary forms of support when planning a business, no specific characteristics or capabilities are needed for an individual to be successful in self-employment. However, some common characteristics can be seen among successful entrepreneurs, including positive goals that are meaningful to the individual and related not only to the business but to the individual's life, disability, family and friends, environment, personal achievement, and personal self-worth (Weiss-Doyel 2002). Having both personal and professional goals that are clearly defined from the beginning gives the necessary focus to the business, gives the individual the motivation to acquire additional training as needed, and gives the business the time it needs to be successful (Weiss-Doyel 2002).

Programs to Promote Self-Employment

A number of federal, state, public, and private policies and programs have been implemented to provide assistance to individuals looking to become self-employed and maintain small businesses. For example, the Small Business Development Centers (SBDCs) (www.sba.gov/sbdc) are "designed to deliver up-to-date counseling, training and technical assistance in all aspects of small business management. SBDC services include, but are not limited to, assisting small businesses with financial, marketing, production, organization, engineering and technical problems and feasibility studies." There are lead SBDCs in every state.

Other programs that assist individuals looking to become self-employed include the following:

- Small Business Administration (www.sba.gov)
- Service Corps of Retired Executives (www.score.org)
- One-Stop Career Centers (www.servicelocator.org)
- Training programs located at colleges and universities (www.educationcenteronline.org/ Business-Degrees/Entrepreneur-Training.html)

In addition, some programs and policies are specifically for individuals with disabilities, including the following:

• The Office of Disability Employment Policy, U.S. Department of Labor, has formed pilot projects in three states to "investigate, develop, and validate systems models likely to increase self-employment opportunities for people with disabilities" (71 FR 29172). The three states that have funded pilot projects are New York, Alaska, and Florida.

Self employment

IB # 7:

VR agencies, as described above, have been directed to recognize self-employment as a legitimate employment outcome for VR clients. Some VR agencies have put together handbooks to assist clients interested in self-employment. Following are some examples:

- Michigan Rehabilitation Services has an online guide to self-employment and links to services provided to people with disabilities. The guide is available at www.michigan.gov/mdcd/0,1607,7-122-25392_40237_42067-18613--,00.html.
- New York Vocational and Educational Services for Individuals with Disabilities has an online technical assistance manual at www.vesid.nysed.gov/publications/briefs/selfemploy/ home.html.
- Maryland Division of Rehabilitation Services has a fact sheet regarding the services provided by the Reach Independence through Self-Employment program available at www.dors.state.md.us/NR/rdonlyres/046DB598-0974-4EFE-A8EA-042282A2278F/0/ SelfEmploymentFact.pdf.
- The SSA's PASS, as described above, helps create conditions for disability income recipients to become self-employed.
- At the state level there are several innovative programs, such as the "Entrepreneurs with Disabilities" interagency partnership in Iowa that provides technical and financial assistance to people with disabilities wanting to start businesses, and the "Vermont Choice Project" that provides training and support for VR clients to become self-employed (Blanck et al. 2000).
- Some private insurers allow "prospective entrepreneurs to use a portion of disability benefits as start-up capital" (Blanck et al. 2000, 1592).

A comprehensive list of resources and research outcomes regarding people with disabilities interested in self-employment can be accessed on the DisabilityInfo.Gov Web site at http://www. disabilityinfo.gov/digov-public/public/DisplayPage.do?parentFolderId=41.

Conclusion

Self-employment for individuals with all types of disabilities has begun to be recognized as a viable employment outcome that can lead to financial independence and economic self- sufficiency. Unlike traditional types of employment, self-employment can provide individuals with the needed flexibility and accommodations that they may need to be able to work and that are not available in the traditional work setting. For an individual to be successful in pursuing and maintaining self-employment, it is critical that both business professionals and disability service providers work as a collaborative team in assessing the individual's readiness for self-employment and identifying and providing the necessary supports to the individual. In addition, it is critical for people with disabilities to understand how their government cash benefits and health care coverage may be affected by becoming self-employed.

References

- 60 FR 29172–29182. Self-employment for adults and youth with disabilities research and technical assistance; Solicitation for cooperative agreements (May 19, 2006).
- Arnold, N. L., & Ipsen, C. (2005). Self-employment policies: Changes through the decade. *Journal of Disability Policy Studies*, 16 (2): 115–122.
- Blanck, P., Sandler, L., Schmeling, J., & Schartz, H. (2000). The emerging workforce of entrepreneurs with disabilities: Preliminary study of entrepreneurship in Iowa. *Iowa Law Review* 85: 1583–660.
- Cornell RRTC. (2005). 2005 Disability status reports. Ithaca, NY: Cornell University, Rehabilitation Research and Training Center on Disability Demographics and Statistics. Retrieved June 27, 2007 from http://www.ilr.cornell.edu/ped/disabilitystatistics.
- Griffin, C. (2002). Introduction to special edition on self employment for people with disabilities. *Journal of Vocational Rehabilitation* 17 (2): 63.
- Griffin, C., & Hammis, D. (2002). Jimbo's jumbos: A primer on small business planning. *Journal* of Vocational Rehabilitation 17 (2): 87–96.
- Hagner, D., & Davies, T. (2002). "Doing my own thing": Supported self-employment for individuals with cognitive disabilities. *Journal of Vocational Rehabilitation* 17 (2): 65–74.
- Ipsen, C., Arnold, N. L., & Colling, K. (2005). Self-employment for people with disabilities: Enhancing services through interagency linkages. *Journal of Disability Policy Studies* 15 (4): 231–39.
- Montana RRTC. (2001). *First national study of people with disabilities who are self-employed*. Rural Disability and Rehabilitation Research Progress Report #8. Missoula, MT: Research and Training Center on Rural Rehabilitation Services.

- Office of Disability Employment Policy, U.S. Department of Labor. (2005). Entrepreneurship: A flexible route to economic independence for people with disabilities. Washington, DC. Retrieved October 25, 2006, from http://doi.gov/odep/pubs/misc/entrepre.htm
- —. (n.d.). Small business and self employment for people with disabilities. Washington, DC. Retrieved July 3, 2007, from http://doi.gov/odep/pubs/ek00/small.htm
- Research and Training Center on Disability in Rural Communities. (2001, February). First national study of people with disabilities who are self-employed: Rural disability and rehabilitation research progress report #8. Available at: http://rtc.ruralinstitute.umt.edu/SelEm/ SelEmRePrgRpt.htm
- Rizzo, D. C. (2002). With a little help from my friends: Supported self-employment for people with severe disabilities. *Journal of Vocational Rehabilitation* 17 (2): 97–105.
- Schur, L. (2003). Barriers or opportunities? The causes of contingent and part-time work among people with disabilities. *Industrial Relations* 42 (4): 589–622.
- Social Security Administration (SSA). (2006). Work incentive planning and assistance projects: Frequently Asked Questions. Washington, DC. Retrieved October 25, 2006, from http://www. ssa.gov/work/WIPARFA_FAQ.html
- Weiss-Doyel, A. (2002). A realistic perspective of risk in self-employment for people with disabilities. *Journal of Vocational Rehabilitation* 17: 115–24.
- Work Incentives Support Center. (2004). Policy and practice brief #17: Self-employment and the benefits planning process. Ithaca, NY: Cornell University. Available at http://www.ilr.cornell. edu/edi/publications/PPBriefs/PP_17.pdf

Getting to Work: The Need for Reliable and Accessible Transportation Employment Issue Brief #8 National Council on Disability

Abstract

Getting a job, keeping a job, and, very often, career advancement within the workplace requires getting to work (or to a job interview) on time every time. Most people in the United States who work rely on the automobile (their own or someone else's vehicle) to travel to work. This is also true for people with disabilities who are employed. Among workers age 18 to 64, 85 percent of those who identify themselves as having a disability report that they travel to work by car; most of them (71.8%) drive themselves to work. The comparable figures for the working-age population of people without disabilities are 88.7 percent, with 78.4 percent who drive themselves.³⁹

Some statistical data, as well as anecdotal evidence, shows that a lack of accessible transportation can pose a significant barrier for some people with disabilities. They may not be able to afford to purchase and/or maintain a car, or perhaps they cannot afford the additional expense of modifying a passenger vehicle to accommodate their disability. They may not be able to drive at all because of the nature or severity of their disability. For a number of reasons, public transportation and other transportation alternatives, such as paratransit or similar services, do not always completely meet the work transportation and business travel needs of many people with disabilities.

Introduction

This issue brief examines how well current transportation systems meet the needs of people with disabilities for reliable, accessible, and affordable transportation to work and for business travel in the course of work. The discussion focuses on surface transportation modes commonly used for commuting to work, including cars, taxis, and public transit systems (buses, subways, and commuter railways), and sidewalk/public rights of way, as well as some more specialized systems (such as paratransit) that can be utilized for commuting purposes. The brief also discusses the importance of business travel away from the regular place of work. It examines public policies currently in place to address existing transportation barriers that affect the ability of people with

disabilities to obtain and maintain employment, and identifies some promising programs and approaches to address these issues.

Getting to Work and Traveling for Business

Both the U.S. Census and the 2002 National Transportation Availability and Use Survey (conducted by the U.S. Department of Transportation [DOT], Bureau of Transportation Statistics) provide comprehensive data about how people get to work. Driving (or carpooling) is the primary means of transportation to work for most people. However, working-age people with disabilities are less likely to drive, compared with their counterparts without disabilities. Only 68.6 percent of working-age people with disabilities currently drive, compared with 90.5 percent of the working-age population without disabilities.⁴⁰ People with disabilities who do drive tend to drive less frequently and tend to restrict their driving to avoid certain situations, such as driving at night or during rush hour, compared with working-age people without disabilities.⁴¹ Though employed people with disabilities do not restrict their driving behavior to the extent that people with disabilities who are not employed do, they still drive somewhat less frequently and are more restricted in their driving behavior when compared with employed people who are without disabilities. This type of driving behavior can limit job opportunities if alternatives are not readily available.

If a person has a disability and cannot drive (or does not choose to drive), does not own a car, or cannot utilize a carpool or similar arrangement, what other transportation options are available to that person? Public transit (bus, subway, commuter rail) is the most frequently mentioned alternative to driving, but it is utilized by only a small segment of the working-age population in their commute to work. According to the 2003 American Community Survey, 4.1 percent of working-age people with disabilities commute to work via bus, streetcar, or trolley, compared with 2.6 percent of the population without disabilities.⁴² Subways and commuter rail systems are less well utilized by people with disabilities, compared with people without disabilities; 1.2 percent of people with disabilities. About 3 percent (3.1%) of working-age people with disabilities report that they walk to work, compared with 2.1 percent of people without disabilities ages 18 through 64. And 4.4 percent of working-age people with disabilities.

Though we know how people with disabilities travel to work, few hard statistics are available on how many people with disabilities cannot work because they cannot drive (or do not own a car) and have no other reliable means to travel to work. We do know that there is a significant employment gap between people with disabilities and the working-age population without disabilities;⁴³ a lack of available, accessible, and affordable transportation for people with disabilities is one of the many barriers that hinder employment for this population. One survey that specifically addressed barriers to work for people with disabilities⁴⁴ found that 29 percent of working-age adults who were not working (but whose disability did not limit or prevent them from working, with or without a workplace accommodation) were discouraged from even looking for a job because of (unspecified) transportation difficulties (Loprest and Maag 2001).⁴⁵ Almost onethird of those who were looking for a job cite lack of transportation as a barrier to finding a job (Loprest and Maag 2001). In a recent survey of 819 Workforce Center senior-level management, Disability Program Navigators,⁴⁶ and other Workforce Center staff and partners in 14 states, transportation was identified as the greatest single barrier to employment for the people with disabilities that they serve.⁴⁷ There is some evidence that people with a mental disability are more likely to experience difficulties with transportation, compared with people with a physical disability (Druss et al. 2000).

Findings from the National Household Travel Survey indicate that 405 million long-distance business trips are made annually, with business trips accounting for 16 percent of all longdistance travel (over 50 miles). Air transportation is employed for 16 percent of these longdistance business trips, or approximately 10,368,000 trips annually (Bureau of Transportation Statistics 2003). When travel by air is required, then accessible transportation is necessary not only in the originating area, but at the destination as well. Statistics were not reported for the numbers of travelers with and without disabilities.

Barriers to Transportation for People with Disabilities

Most people with disabilities who can drive and who own a car drive themselves to work. Some people with disabilities are physically unable to drive and/or cannot obtain a driver's license because of their medical condition (e.g., they cannot pass the eye exam or they have an uncontrolled seizure disorder). For some people with physical impairments, a car or van that is modified to accommodate their disability may be the answer. The cost of these modifications can vary widely; for people with severe physical impairments (a spinal cord injury), the costs can range from \$149 to \$65,000 per vehicle, depending on the extent of the required modifications and the

type of vehicle (car, truck, minivan, or full-sized van) involved (Berkowitz et al. 1998). People with disabilities who are dependent on disability benefits or other public assistance typically cannot afford to pay for these modifications, if they can afford to own a car at all.⁴⁸ Though federal funding for vehicle modifications is available via several programs (described below), people with disabilities may not be completely aware of these programs or how to access this funding.

What about public transit? Where this alternative is available, it must also be both affordable and accessible to be useful to people with disabilities. What does "accessibility" in public transit mean for people with disabilities? Like people without disabilities, people with disabilities need unimpeded access into and out of buses, trains, and other forms of public transit. Lifts, low floors with ramps, or similar conveyances allow people with physical disabilities to enter and exit buses and trains. Working elevators are required to access elevated train platforms. Curb cuts, widened doorways, unobstructed transit stops (and unobstructed walkways leading to these stops), and accessible ancillary facilities (such as ticket stations and restrooms) make public transit usable for people with physical disabilities. These accessibility aids and equipment must also be maintained and kept in good working order; an abundance of anecdotal evidence indicates that these devices are often broken or do not function properly (NCD 2005).

Accessibility in public transit also includes removal of information barriers. Stations and stops should be clearly identified with appropriate signage. People with vision or cognitive impairments need timely and audible announcements of bus and train stops if they are to use public transit systems effectively.

Transit passengers with disabilities may also encounter attitudinal barriers among transit workers. Some workers may not be adequately trained in operating lifts or other accessibility aids. Some may not be comfortable providing assistance to people with disabilities. Still others may not want to take extra time to assist people with disabilities who want to use public transit. In addition, workers may not understand the rights of people with disabilities to travel with service animals.

Not all people with disabilities can successfully navigate a public transit system, particularly when their travel requires transferring from a train to a bus, or from one bus route to another. For example, dealing with public transit may present too many complexities for people with cognitive disabilities, particularly when multiple transfers are involved. People with fatigue disorders may not be able to tolerate lengthy travel time and multiple transfers within public transit systems.

Finally, public transit is a useful means of getting to work only if it is available where a person lives and if the bus or train travels to where that person works. Public transit is most widely available and used for commuting to work in major urban areas and their surrounding suburbs, and the underlying assumption in the routing and scheduling of these services is that people need to travel from their homes outside a city to a job within a city. Public transit systems work less well, in terms of routing and scheduling, if the right job is located in a more suburban location. And public transportation is just not an option in many rural or remote locations.

Alternatives to public transit systems include taxis, shuttles, and demand-response transit services. However, most taxis are not equipped to be accessible for people with physical disabilities; people with disabilities also report cases of discrimination, where taxis just pass right by if they see someone with an obvious disability. The use of a taxi service for routine transportation to and from work is also a very costly alternative. These issues aside, there are efforts in many communities to implement accessible taxi services useful to people with disabilities as alternatives to public transit and paratransit systems (NCD 2005). Accessible taxis are also a component in business travel, and some cities have implemented requirements and are undertaking new initiatives to ensure access to taxi service both for local travel and for business travelers.

Use of private shuttle services is also an option in some locations, particularly at airports and hotels, or for transportation to and from car rental services. Some shuttle services are accessible, but for some of those that are not, there have been enforcement actions and settlements by the Department of Justice and state attorneys general (NCD 2005). Planned use by business travelers usually requires some investigation prior to travel to ensure that accessible transportation services will be available at the destination. In some cases the availability of accessible transportation on arrival may not reflect the information gathered before travel, in spite of company policies of providing accessible service implemented by either private or public transportation providers (NCD 2005).

So-called demand-response systems, such as the paratransit systems mandated under the Americans with Disabilities Act (ADA), provide transportation services (via car, van, or small bus) in response to requests from passengers. They do not operate on a fixed schedule or over a fixed route (although there may be some restrictions in scheduling or routing these services) and may schedule an individual passenger's pick-up and drop-off times in order to accommodate multiple passengers. Pick-up times may vary within a 20- to 30- minute window around the scheduled time, and the scheduled time may be different than the requested time by up to an hour, which may result in late arrival at the workplace or the need for early departure from the workplace. In addition, in many cases rides must be requested rather than set as subscription rides, and are subject to variation with each request.

These demand-response services may be operated by the local public transit operator (ADAmandated paratransit services), or they may be operated by state, county, or local transportation or human services agencies. Eligibility for paratransit services depends on whether it is an ADA-mandated paratransit service or one operated by an agency. For those operated by agencies, income may play a role in determination of eligibility, and those people with disabilities who work or live in households with more than one income earner may earn too much income to be eligible for services. In some cases they may be able to utilize such services if they pay a usage fee, but income may be too high for free eligibility but too low to afford to pay for usage. In many cases, particularly among services operated by county or local agencies, services are limited to local geographic areas and/or to weekdays during business hours, which may restrict their usefulness for commuting to work. These limits on geographic areas may also pose problems for business travelers seeking to use such paratransit, particularly when paratransit services near airports serve one region, but hotels and businesses are in surrounding communities served by other services or not at all.

These systems tend to serve a wide range of transportation needs (including shopping and health care visits) but these needs may be limited by agencies providing services, which may authorize trips only for certain purposes. Though paratransit services for transportation to work may be important for some people with disabilities (typically those employed in sheltered work settings), there is no evidence that demand-response systems are heavily utilized by most other people with disabilities to commute to work.

Overcoming Transportation Barriers: Policies and Programs

When we think of the policy environment as it pertains to people with disabilities and their transportation barriers to employment, we typically first think of the ADA, which was signed into law in 1990. Not only does the ADA prohibit discrimination against people with disabilities with regard to transportation services funded by federal, state, and local sources, but Title II of ADA sets accessibility standards for newly purchased or leased public transit vehicles, and further mandates that public transit systems establish an alternative paratransit system, comparable to the existing fixed route system, to provide service to people with disabilities who cannot use the existing fixed route system due to their disability.⁴⁹

Since ADA went into effect, public transit has become much more accessible. Currently, almost 97 percent of all buses comply with ADA accessibility requirements, as do 87 percent of trolleys, streetcars, and other light rail vehicles, 76 percent of commuter rail cars, and 99 percent of subway cars (APTA 2005). According to a recent NCD study of transportation, as of 2005, out of 685 key stations identified over 36 transit agencies, all but 96 are compliant; 25 transit agencies are completely compliant (NCD 2005). However, barriers remain. Some older train stations and other facilities just cannot be made accessible. On the paratransit side, the amount of paratransit service provided by transit operators has tripled since the passage of ADA (Koffman, Raphael, and Weiner 2003).

Enforcement of ADA transportation provisions typically arises from the efforts of advocates and other parties who file administrative complaints or lawsuits. While the Federal Transit Administration conducts compliance reviews of up to eight transit systems annually, no comprehensive federal system is in place to monitor transit systems for compliance with ADA (NCD 2005).

Even if public transit were completely accessible, or if the inaccessibility of public transit could be completely overcome with paratransit services, transportation would remain a major barrier to employment for some portion of the working-age population with disabilities. Public transit services are just not available in all locations, nor do available service routes and schedules necessarily accommodate the employment transportation needs of people with disabilities.

Some cities are implementing programs to provide for accessible taxi service (NCD 2005). Programs include requirements to have a certain percentage of taxi fleets be accessible, make the availability of medallions to accessible taxis at no or lower cost, or auction accessible taxi medallions separately from other medallions. Problems include lack of availability to the disability community of the accessible taxis, either because they are being used in more lucrative locations or are not in service. Enforcement of requirements has also been shown to be lacking in some cases, so that even where accessible taxis are available they may not be used or their drivers may discriminate against people with disabilities, including those with service animals.

Fortunately, other options are available in some communities. There is no shortage of federal, state, and local programs, policies, and initiatives designed to overcome transportation barriers for all persons, including people with disabilities, who are transportation-disadvantaged and who want to work. According to the Government Accountability Office, there are 62 such federal programs (U.S. GAO 2003a). Funding is available from a host of federal agencies, including the U.S. Departments of Health and Human Services, Education, Transportation, Labor, Housing

and Urban Development, and Agriculture. Not all of these programs target working-age people with disabilities directly, and not all of them are focused on funding or providing transportation specifically to enhance employment opportunities for people with disabilities. Providers funded through these programs typically contract for transportation from existing public or private providers, or they may issue vouchers to consumers who can then purchase their own transportation services. Some funds are also available to service providers for vehicle modification or the purchase of modified vehicles.

To improve customer service and to lower the costs of providing these services, various local providers and agencies have begun to systematically coordinate their services by sharing vehicles, sharing information, and consolidating funded transportation services within a single agency. However, significant barriers to systemwide coordination remain, given programmatic differences in the standards and regulations that govern the various federal funding streams and a reluctance to fund program coordination activities. To address these barriers, a new Interagency Transportation Coordinating Council on Access and Mobility, chaired by the Secretary of Transportation, has been established to coordinate all federal programs that provide funding to be used in support of human services transportation.

Individual states may apply for DOT funds, authorized under the 1998 Transportation Equity Act for the 21st Century (and reauthorized under the Safe, Accountable, Flexible, and Effective Transportation Equity Act of 2003, or SAFE-TEA) to provide local communities with funding to meet the transportation needs of people with disabilities. Formula funding for capital expenses (such as modified vehicles) is provided under Section 5310, the Transit Capital Assistance Program for Elderly Persons and Persons with Disabilities to states for the purpose of assisting private nonprofit groups and certain public bodies in meeting the transportation needs of seniors and people with disabilities. Under Section 5311, formula grant funding is available to expand transportation services for rural populations (including people with disabilities) by supporting administrative, capital, or operating costs of local transportation providers in these areas. According to a survey of Section 5311–funded service providers, this funding stream has resulted in a 62 percent increase in passenger service levels among rural transit providers from 1994 through 2000, with 23 percent of all passenger trips made by people with disabilities (CTAA/IESM 2000).⁵⁰

Among funding for employment-directed transportation services, the Job Access and Reverse Commute (JARC) grant program (Section 5316) develops and promotes transportation services in urban, suburban, and rural areas that assist welfare recipients and low-income individuals (including people with disabilities) to access employment opportunities. JARC funding has been used by some communities to provide transportation for people with disabilities with nontraditional work schedules and other workers who need flexible transportation options, and to fund transportation vouchers for people with disabilities (NCD 2004).

As part of President George W. Bush's New Freedom Initiative, established in 2001, a newly authorized program under SAFE-TEA, the New Freedom Program (Section 5317), provides for funding for new transportation services and alternatives beyond those required under ADA to meet the transportation needs of people with disabilities, including employment-related transportation. Formula-based transit grants funds are provided to individual states that, in turn, fund local New Freedom projects based on competitive solicitations (similar to the distribution of JARC and Section 5310 funds described above).

The use of available DOT and other federal funds for voucher programs specifically designed to assist people with disabilities with employment-related transportation offers a promising approach to dealing with transportation barriers to employment. These programs provide vouchers to people with disabilities to pay for employment-related transportation expenses; in addition to transportation to and from work, these expenses may also include transportation to job training programs or to job interviews, transportation to medical providers for employment-related health services, or trips for other employment-related reasons. Vouchers may be used to pay for taxi services, drivers, or services provided by transit agencies or other providers. Findings from recent evaluations of some voucher demonstration programs support the viability of these services for overcoming transportation barriers faced by people with disabilities in rural locations (Bernier and Seekins 1999; Association of Programs for Rural Independent Living 2005).

Resources are also available to those people with disabilities who can drive and who require financing for vehicle modifications. The Assistive Technology Act of 2004 supports state-based programs providing loans or grants to individuals with disabilities; these funds may be used to finance part or all of the costs of modifications to an existing car or van or, in some cases, the purchase of a modified vehicle for their use in commuting to work. Availability of funds for this purpose may vary by state. Funding for vehicle modifications may also be available through Workforce Investment Act or vocational rehabilitation grant programs funded under the Rehabilitation Act.

Conclusion

Lack of accessible and affordable transportation options makes employment difficult or completely unattainable for many people with disabilities. The transportation barriers that this population faces are influenced by a host of factors, including the type and severity of disability (and its influence on their ability to drive or to utilize available public transit), their geographic location, the location and work days/hours of the employment options available to them, and the availability of accessible transit options. Legislative remedies, such as ADA, which address issues of discrimination and accessibility in public transit, deal with only some of these barriers. Elimination of these barriers will enhance the labor pool available to employers and increase employment opportunities for people with disabilities.

The good news is that a series of recent initiatives, such as system coordination and voucher programs that make creative use of available federal funds to expand the options available to transportation-disadvantaged populations (including working-age people with disabilities), can result in more flexible and affordable options that are more effective in meeting the work commuting needs of people with disabilities. To effectively exploit these opportunities, local transportation planners and transit providers, advocates, consumers, and employers need to think creatively about how to structure transportation solutions to meet the needs of all transportation-disadvantaged groups, including people with disabilities, in their communities.

Speaking of employers, adaptations in the workplace itself may help some people with disabilities to surmount their transportation difficulties. More effective use of telecommuting or introduction of flexible work hours, if feasible, may further assist some people with disabilities to obtain and sustain productive employment by either minimizing the need for transportation or easing some of the restrictions on available transit options. In addition, educational efforts may be targeted to employers and local stakeholders to promote awareness and use of the many federal programs that address transportation barriers. Technical assistance to employers and people with disabilities may result in the creative use of these initiatives to promote employment opportunities for qualified individuals with disabilities, adding to the labor pool for employers.

References

- American Public Transportation Association (APTA). (2005). *Public transportation fact book. 56th edition*. Washington, DC: American Public Transportation Association.
- Association of Programs for Rural Independent Living. (2005). *National demonstration of rural employment transportation voucher model: "Placing control in our hands." Project Report Year Three*. Retrieved July 26, 2005, from http://www.april.rural.org/docs/transreportyear3. html
- Berkowitz, M., O'Leary, P. K., Kruse, D. L., & Harvey, C. (1998). *Spinal cord injury: An analysis of medical and social costs*. New York: Demos Publications.
- Bernier, B., & Seekins, T. (1999). Rural transportation voucher program for people with disabilities: Three case studies. *Journal of Transportation and Statistics*, May.
- Bureau of Transportation Statistics. (2003, October). *America on the go: Findings from the National Household Travel Survey*. Washington, DC: Department of Transportation.
- Cornell RRTC. (2005). 2004 Disability status reports. Rehabilitation Research and Training Center on Disability Demographics and Statistics, Cornell University.
- CTAA/IESM. (2000). *Status of rural public transportation—2000*. Community Transportation Association of America/Institute for Economic and Social Measurement. Retrieved June 25, 2005, from http://www.ctaa.org/ntrc/rtap/pubs/status2000
- Druss, B. G., Marcus, S. C., Rosenheck, R. A., Olfson, M., Tanielian, T., & Pincus, H. A. (2000, September). Understanding disability in mental and general medical conditions. *American Journal of Psychiatry*.
- Koffman, D., Raphael, D., & Weiner, R. (2003). *The impact of federal programs on transportation for older adults*. Washington, DC: AARP Public Policy Institute.
- Loprest, P., & Maag, E. (2001). *Barriers to and supports for work among adults with disabilities: Results from the NHIS-D.* Washington, DC: U.S. Department of Health and Human Services. Retrieved August 18, 2005, from http://aspe.hhs.gov/daltcp/reports/barriers.htm
- National Council on Disability (NCD). (2004). *Livable communities for adults with disabilities*. Washington, DC: National Council on Disability.
- —. (2005). The current state of transportation for people with disabilities in the United States.
 Washington, DC: National Council on Disability.

U.S. GAO (2003). *Transportation-disadvantaged populations*. *Many federal programs fund transportation services, but obstacles to coordination persist*. GAO-03-698T. U.S. Government Accountability Office, Washington, DC.

Health Care and Employment of People with Disabilities Employment Issue Brief #9 National Council on Disability

Abstract

This issue brief considers access to health care and its relationship to employment for people with disabilities. First the brief discusses the associations among health, access to health care, and employment, finding that these concepts are intertwined and that lack of access has a negative effect on health and therefore employment. The second section examines how health insurance (which in the United States is synonymous with access to health care) serves as a barrier to employment for people with disabilities. Whereas not having insurance is an impediment, being insured can limit the employment opportunities of people with disabilities. People with public coverage, for instance, have a disincentive to work because they do not want to lose their access to health care. The last part of the brief reviews current options for expanding health coverage. Because few private initiatives are under way, the most promising involve the expansion of public health coverage and statewide reforms for universal coverage.

Introduction

"[A] man with quadriplegia who provides technical support to a computer company said that he would like to work more hours but works only 20 hours per week because higher earnings would cause him to lose his Medicare health insurance that pays for his home health aides." (Schur 2003, 607)

"Health insurance is an important factor in almost every labor market decision made by individuals: whether to work, where to work, and how much to work. It is also an important factor in the human resource decisions made by employers: how many workers to hire, whom to hire, and how to structure the terms and conditions of employment." (Madrian 2006, 27)

People with disabilities often face employment difficulties tied to health care. To avoid high health care costs, employers may be less interested in hiring (and insuring) people with disabilities. Annual health premiums increase at rates consistently greater than inflation; the average annual family premiums for employer-based health insurance in 2005 were more than \$11,000

(Kaiser Family Foundation 2006). In response, though, some of these persons leave the labor force entirely, at a cost of \$120 billion (in 2003) for disability-focused federal programs (with most of that amount going to economic support for people with disabilities) and an additional \$132 billion (in 2002) in federal spending on health coverage (U.S. GAO 2005).

Because health and health care are critical to employment, this issue brief identifies issues involved with access to health care, which in the United States is inextricably tied to health insurance coverage.

Health, Access to Health Care, and Employment

Access to health care—getting treatment for health conditions—improves health and the capacity for work. Persons who receive treatment for their depression, for example, experience a significant decrease in their symptoms and have higher levels of employment than do persons who do not receive treatment (Schoenbaum et al. 2002). There is also a reverse effect, as employment influences both health and health care. Persons who are employed full-time have better health or a slower rate of health decline than do those not working (Klumb and Lampert 2004; Ross and Mirowsky 1995; Pavalko and Smith 1999), and those who are unemployed may experience symptoms that could be detrimental to obtaining a job (Montgomery et al. 1999).

Lack of access has a direct impact on one's health and labor capital. Those who are uninsured receive fewer health care services and have poorer health outcomes than do those who are insured (Hadley 2003; Institute of Medicine of the National Academies 2001, 2002; McLaughlin 2004). Their mortality rates are higher, and their overall health status and functioning decline more quickly. Uninsured persons are less likely to see a doctor, are less likely to get health care when they need it, receive less care for health conditions, and receive poorer care from providers when they do actually receive it. Moreover, persons without insurance may be billed at higher rates for services received than those with heath insurance are. Persons with chronic conditions, such as mental illness and diabetes, are less likely to get the care they need to manage their illnesses, including medications.

The United States spends more on health care than does any other nation. In 2004, almost 16 percent of the U.S. gross domestic product—\$6,280 per person—was spent on health care (Centers for Medicare and Medicaid Services 2006). Who receives services and the services obtained usually depend on one's health care coverage, or health insurance, which is, unfortunately for

people with disabilities, often intertwined with employment. Employment-based health insurance (EBHI) is a benefit obtained through (usually full-time) employment, though individuals can purchase (generally more expensive) private health insurance. Public coverage (Medicare and Medicaid) is available for those assessed as unable to work and who are eligible for state and/or federal disability benefits.

There is a tremendous disparity in the receipt of EBHI and public coverage between people with and without a disability. In 2005, about 63 percent of the nonelderly population without a work limitation had EBHI through their own employment, 28 percent had coverage through their spouses, 9 percent purchased individual coverage, 9 percent had public coverage, and 17 percent were uninsured. For people with a work limitation, 22 percent had insurance through employment, 18 percent had coverage through their spouses, 7 percent had individual coverage, 50 percent had public coverage, and 22 percent had no coverage (Houtenville 2006). Even among those employed, people with disabilities are less likely to have health insurance (Schur 2002a).

Appropriate and timely access to health care may keep people with potentially work-disabling conditions in the workforce. Many health insurance companies use disability management services to promote the health and coordinate the care of their enrollees. These services are also used by private disability insurance programs, which have financial incentives to save money by returning persons to work instead of paying them long-term disability benefits. Disability management is an important component of the short-term benefit program of many developed countries (e.g., the Netherlands, Norway, Sweden, Germany) to keep persons in the workforce and away from long-term disability benefits (OECD 2003). In addition to providing health services for beneficiaries, these programs also engage employers and rehabilitation services. Workers' compensation programs, which provide or pay for health services when an employee has a workrelated injury or illness, also have an interest in disability management. A pilot project in the state of Washington, for instance, used a managed care program to improve treatment guidelines and provide utilization management in an attempt to shorten the time away from work and prevent longer term disability (Wickizer et al. 2004). The program focused on various quality indicators to improve the timeliness of health care and to encourage return to work through increased interaction with the employer and assessments of returntowork (RTW) needs.

Does having health insurance promote employment or keep individuals from leaving the labor market? The short answer is maybe. Persons leave the labor force not because they are in poor health, but because they experience a decline in their health that affects the ability to work. Having health insurance therefore can improve access and help individuals maintain their health and their employability.

On the other hand, access to health insurance may lead to persons in poorer health dropping out of the labor force. Individuals close to retirement age who have access to health insurance outside of their job are more likely to retire than are individuals without access (Rogowski and Karoly 2000). People are also more likely to apply for federal disability benefits if they have health insurance through their spouse or through their retirement benefits, rather than health insurance only through their employer (Gruber and Kubik 2002). Finally, a universal health care system in which everyone has, in theory, equal access does not guarantee higher employment rates for people with disabilities. The data available from the Organisation for Economic Co-operation and Development (OECD) shows that some countries with universal health care have high disability prevalence and the separation of those persons from the labor force despite what may be considered adequate access to health care services (OECD 2002, 2003). The United States ranks fifth among OECD countries in the employment rate of people with disabilities (trailing Switzerland, Norway, Canada, and Sweden). These trends may be due to financial incentives (i.e., benefits that replace a high proportion of income), a lack of focus on RTW efforts (though many new reintegration initiatives are being implemented), and country-specific economic conditions.

Health Coverage as a Barrier to Employment

The lack of health insurance is commonly cited as a barrier to employment and adequate health care for people with disabilities. However, as mentioned previously, persons in poor health or with a work-limiting condition have only slightly higher rates of being uninsured than do those who are not in poor health. The reason the uninsured rate is not higher is that approximately half of people with disabilities have public coverage, which creates a different disincentive to employment. Though public health coverage provides access to health services, it restricts access to employment. Medicare and Medicaid are available to individuals with disabilities only after they have proved that they are unable to work. Increased labor force participation not only decreases or eliminates cash benefits, it also potentially eliminates a person's health insurance. This situation creates a perverse incentive for disability beneficiaries to stay out of the labor force or restrict their earnings.

The other typical source for obtaining health coverage, EBHI, can be difficult for people with disabilities to obtain and keep. As noted above, EBHI is the predominant form of coverage for working-age persons, but it is generally offered only to full-time employees. This situation is particularly disheartening in light of the continuing low employment rates of people with disabilities and the increasing share of employment among people with disabilities that is part-time or in nontraditional arrangements (Schur 2002a, 2003).

People with disabilities who have health insurance through their employer may also experience job lock: not being able to leave a job because of the loss of health benefits (Gruber and Madrian 2002). This may mean not switching to a better job because of having a waiting period to obtain benefits through a new employer (though federal laws have filled this gap by mandating a limited continuation of health coverage from a prior employer [COBRA]). However, job lock may also mean something quite different: not leaving a job even though a health condition might require it. For example, women with breast cancer who had health insurance through their spouses were more likely to leave their jobs than were women with breast cancer who had health insurance through not all) find that the potential loss of health insurance often acts as a deterrent to job turnover (Madrian 2006, 19).

EBHI poses problems for employers as well. For small employers, health insurance costs are so high that many have dropped coverage or passed those costs directly to employees. Almost one in five employees work in a firm that does not offer health insurance (Madrian 2006). Employers may fear hiring people with disabilities because of a possible increase in two types of costs—lost productivity from individuals who are too sick to come to work and increased health insurance premiums driven by high users of health insurance. In addition, rising health insurance costs may lead employers to hire fewer full-time workers (thereby increasing the number of hours they work, hence creating another obstacle for people with disabilities) and/or to rely more on part-time workers (who may not qualify for health insurance benefits).

Another option for health coverage beyond EBHI and public coverage is the individual purchase of health insurance (also called nongroup insurance). Individual markets are regulated by states, and there may be, as discussed later, some opportunities to expand the individual market for people with disabilities. However, few individuals seek coverage through the individual market, primarily because insurance purchased in this way is expensive and its costs have grown at a greater rate than the costs of EBHI have. The U.S. health insurance system is tilted to employers because of the tax savings (health insurance expenditures are not taxed for either the employer or the employee); persons buying individual insurance have no such savings and so purchase insurance at full price. The individual market is also more expensive because, in most states, an insurer can risk-adjust the policies it offers based on health characteristics of the purchaser; those in poor health will therefore pay higher premiums than will those in good health because they are more likely to use more health services than are persons in better health. The cost of purchasing individual coverage is restricted by the fact that people with disabilities on average earn less than people without disabilities, and uninsured low-income persons have a higher proportion of their incomes go to necessities (like housing and food), leaving less to pay for the high price of health coverage through the individual market.

One other barrier deserves mention: Health coverage among plans is not equal. EBHI plans differ by employer, with some plans more generous and others more restrictive. Though fee-for-service Medicare offers the same benefits for all members, Medicare HMOs offer a minimum level of services with additional benefits that are dependent on the plan. Though the Federal Government sets a standard of provisions for Medicaid, states are able to add populations and services that could potentially change from year to year. In addition, the private plans available to people with disabilities may not be as good as what Medicare and Medicaid provide, especially regarding prescription drug benefits. This issue of quality is apparent for people with mental illness. Mental illness is chronically undertreated in the United States. Even people with private health insurance may not have coverage for the therapy or medications necessary for avoiding health deterioration. Public insurance (largely Medicaid) pays for more mental health services than does private insurance. This may not be surprising considering that people with mental illness have more difficulty maintaining employment, particularly if they are without health insurance and medications, and so have to depend on public disability programs in order to obtain the mental health care they need. Again, this fact highlights the perverse incentive for people with disabilities not to work so that they may retain health coverage.

Solutions to Improve Health Coverage and Employment

The obvious solution to the problem of health care access and employment for people with disabilities is to dissolve the link between health coverage and employment. National universal health coverage, for instance, ideally would promote the health and work capacity of people with disabilities by allowing full access no matter the employment level. Such a system would necessarily break the need for disability beneficiaries not to work in order to keep their health coverage. This solution is not envisioned for the immediate future, however. This brief now details current solutions for EBHI, public, and individual coverage, as well as promising developments in the state of Massachusetts regarding state-level universal coverage.

EBHI

Because of the EBHI structure, few initiatives are available to expand coverage for people with disabilities in this area. On the state level, governments could assist small employers by encouraging multiple employers to pool their employees together. In addition, they could create high-risk and reinsurance pools to protect small employers against high medical costs. One market-driven initiative brings several large employers together to offer part-time employees one low-cost, limited-services plan among all the participating companies, though the employers are not paying any portion of the premium (*New York Times* 2005). The idea is that by including workers from several companies, enough individuals will enroll to reduce the overall risks and costs. For people with disabilities, it is unclear how useful a limited-services plan is when dealing with day-to-day health needs.

Public Coverage

Several health coverage initiatives are now offered by state and federal disability benefit programs to encourage the employment of beneficiaries. Through the Ticket to Work program, Social Security Disability Insurance (SSDI) beneficiaries are eligible for Medicare coverage for up to 8½ years after working at a high enough level to leave the benefit rolls, and individuals can continue to have Medicare after that period by paying the coverage premiums.⁵¹ The Social Security Administration also has funded Benefits Planning, Assistance, and Outreach (BPAO) projects to assist SSDI beneficiaries in employment decisions and to educate them about available work incentives.

Several programs offer or extend Medicaid to people with disabilities. Medicaid is generally obtained through receipt of Supplemental Security Income (SSI) by persons of limited means who have a health condition that prevents them from working. As with Medicare, Medicaid coverage can be retained for a time after losing SSI because of earned income.

These coverage extensions were created to improve the employment incentives of disability beneficiaries who are not employed, not people with disabilities who remain in the labor market. Medicaid Buy-In programs allow working-age individuals with disabilities who work an opportunity to purchase (i.e., pay a premium for) Medicaid health coverage, provided that certain income and asset tests are met that are defined by the state. The strength of these Medicaid Buy-In programs is that they separate health coverage from disability benefits. Buy-ins are currently available in about half the states.

It is too soon to see whether these programs are improving the employment opportunities of people with disabilities, but the take-up rate for the programs has been low. For all Medicaid and Medicare initiatives, beneficiaries are not often aware of them, they may be confused about what their options actually are, and they may fear that if they show that they can work at a substantial level, their ability to receive cash and medical benefits in the future may be at jeopardy. States may be quick to cut Medicaid programs and/or benefits to shore up budget deficits, while the quality of care or provider access with Medicaid has been limited traditionally.

Individual Coverage

Another option to expanding public coverage is to improve access through the individual health insurance market, initiatives that would be developed at the state level. Commonly cited initiatives to improve health insurance coverage through the individual market include the following:

- Reinsurance programs (where the state pays the health care expenditures for people with high costs)
- State-managed insurance for high-risk individuals (such as those with existing health conditions)
- Imposing community ratings (where each member pays the same rate for a plan, rather than the plan being adjusted based on individual health characteristics)
- Offering vouchers to individuals so that they can purchase or be reimbursed for health insurance coverage on their own
- Minimal coverage plans for those willing to bear the risk for minor health costs

As noted above, it is uncertain if any of these programs would benefit people with disabilities, as none has been targeted specifically to people with disabilities, and none has been successful in expanding health insurance coverage.

Massachusetts Health Care Reform

Recent reforms to provide universal coverage in the state of Massachusetts combine elements from each of the above three domains that may be promising for people with disabilities (Steinbrook 2006). These reforms require that a) all state residents obtain health coverage and b) employers with more than 10 employees provide health insurance. Individual and small-group insurance markets will be merged with the intent of reducing premiums and expanding plan offerings. Adults with an income of less than 100 percent of the poverty level will have access to free Medicaid, with subsidies to private plans provided to people with earnings between 100 percent and 300 percent of the poverty level. This multifaceted approach may solve many of the problems discussed above regarding health insurance for people with disabilities, and successful implementation could improve both their health and employment.

Conclusion

Access to health care is an important component for the employment of people with disabilities. The best way to promote access to health care is through having health coverage, which is available mainly to persons who are either employed full-time or totally unable to work. Though many options could remove the various employment barriers surrounding health coverage, the expansion of public plans (particularly Medicaid) to people without disability income and statewide reforms to mandate health coverage could play important roles in the employment of people with disabilities.

References

- Bradley, C. J., Neumark, D., Luo, Z., & Bednarkek, H. L. (2005). Employment contingent health insurance, illness, and labor supply of women: Evidence from married women with breast cancer. NBER Working Paper No. 11304. Cambridge, MA: National Bureau of Economic Research.
- Centers for Medicare and Medicaid Services. (2006). Retrieved May 25, 2006, from http://www. cms.hhs.gov/NationalHealthExpendData
- Gruber, J., & Kubik, J. (2002). *Health insurance coverage and the disability insurance application decision*. NBER Working Paper No. 9148. Cambridge, MA: National Bureau of Economic Research.

- Gruber, J., & Madrian, B. C. (2002). Health insurance, labor supply, and job mobility: A critical review of the literature. NBER Working Paper No. 8817. Cambridge, MA: National Bureau of Economic Research.
- Hadley, J. (2003). Sicker and poorer: The consequences of being uninsured. *Medical Care Research & Review* 60 (2): 3S–75S.
- Houtenville, A. J. (2006). Health insurance coverage and employment among working-age people with disabilities. Sixth International Conference on Occupational Stress and Health, Miami, FL, March 2–3, 2006.
- Institute of Medicine of the National Academies. (2001). *Coverage matters: Insurance and health care*. Washington, DC: Author.
- ----. (2002). Care without coverage: Too little, too late. Washington, DC: Author.
- Kaiser Family Foundation. (2006, September 26). Health insurance premium growth moderates slightly in 2006, but still increases twice as fast as wages and inflation. Retrieved October 16, 2006, from http://www.kff.org/insurance/ehbs092606nr.cfm
- Klumb, P. L., & Lampert, T. (2004). Women, work, and well-being 1950–2000: A review and methodological critique. *Social Science and Medicine* 58 (6): 1007–24.
- Madrian, B. C. (2006). *The U.S. health care system and labor markets*. NBER Working Paper No. 11980. Cambridge, MA: National Bureau of Economic Research.
- McLaughlin, C. G. (Ed.). (2004). *Health policy and the uninsured*. Washington, DC: Urban Institute.
- Montgomery, S. M., Cook, D. G., Bartley, M. J., & Wadsworth, M. E. J. (1999). Unemployment pre-dates symptoms of depression and anxiety resulting in medical consultation in young men. *International Journal of Epidemiology* 28: 95–100.
- New York Times. (2005). Program offers health care for some part-time workers. October 4, C2.
- OECD. (2002). *Society at a glance: OECD social indicators*. Paris: Organization for Economic Cooperation and Development.
- —. (2003). *Transforming disability into ability: Policies to promote work and income security for disabled people.* Paris: Organization for Economic Cooperation and Development.
- Pavalko, E. K., & Smith, B. (1999). The rhythm of work: Health effects of women's work dynamics. *Social Forces* 77 (3): 1141–162.

- Rogowski, J., & Karoly, L. (2000). Health insurance and retirement behavior: Evidence from the health and retirement survey. *Journal of Health Economics* 19: 529–39.
- Ross, C. E., & Mirowsky, J. (1995). Does employment affect health? *Journal of Health and Social Behavior* 36 (3): 230–43.
- Schoenbaum, M., Unutzer, J., McCaffrey, D., Duan, N., Sherbourne, C., & Wells, K. B. (2002).
 The effects of primary care depression treatment on patients' clinical status and employment. *Health Services Research* 37 (5): 1145–158.
- Schur, L. A. (2002a). Dead end jobs or a path economic well-being? The consequences of nonstandard work among people with disabilities. *Behavioral Sciences and the Law* 20: 601–20.
- —. (2003). Barriers or opportunities? The causes of contingent and part-time work among people with disabilities. *Industrial Relations* 42: 607.
- Steinbrook, R. (2006). Health care reform in Massachusetts: A work in progress. *New England Journal of Medicine* 354 (20): 2095–98.
- U.S. GAO. (2005). Federal disability assistance: Wide array of programs needs to be examined in light of 21st century challenges. GAO-05-626. Washington, DC: Government Accountability Office.
- Wickizer, T. M., Franklin, G. M., Mootz, R. D., Fulton-Kehoe, D., Plaeger-Brockway, R., et al. (2004). A communitywide intervention to improve outcomes and reduce disability among injured workers in Washington State. *Milbank Quarterly* 82 (3): 547–67.

Educational Policy and Practice: Improving Employment Outcomes for People with Disabilities Employment Issue Brief #10 National Council on Disability

Abstract

Educational policy and practice long have embraced the goals of citizenship and employment (Kaestle 2000). Acquiring job skills and transitioning into the workforce, whether for the first time, retraining, and/or reentering, remains an important policy initiative of the legislative and executive branches of government for people without and with disabilities.⁵² Since 1975, the Individuals with Disabilities Education Act (IDEA) has entitled children with disabilities to appropriate individualized educational services (Myhill 2004). These services since 1990 have required individualized transition planning to prepare the secondary student for education, employment, and lifelong fulfillment in the postsecondary world (Baska et al. 2003). However, much transition planning lacks relevancy, is ineffective, or is poorly implemented.⁵³ Moreover, after those with disabilities leave the K–12 educational system, they are often faced with services that are fragmented or significantly dwindle (Zaslow 2005),⁵⁴ are limited to minimal program accessibility (Shaw and Dukes 2005; Paul 2000; Rao 2004), and are more often training for low-paying jobs (Gill 2005).⁵⁵ For those who first experience disability in adult life, perhaps due to illness or injury, the rehabilitation and retraining available often is proportional to the individual's personal assets (Wheaton and Hertzfeld 2002).

Access to these services for people with disabilities is an important factor mandated by such laws as the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 (ADA), and the Workforce Investment Act of 1998 (WIA). The ADA is the driving force encouraging more postsecondary educational programs and services, especially those privately owned, to become available, accessible, and accommodating to people with disabilities (Blanck et al. 2003). Yet, levels of education remain low, as have rates of employment for people with disabilities compared with their peers without disabilities. In 2004, people with disabilities were less than half as likely to have earned a bachelor's degree (12.7% v. 29.8%) (Cornell RRTC 2005). Similarly, in 2000, among those with work-related disabilities, twice as many people with a bachelor's degree were employed compared with those having less than a high school education (48% employed v. 20%) (Houtenville and Daly 2003).

Introduction

In the next two sections, this brief presents a detailed overview of highly promising practices and initiatives for enhanced educational opportunities that promote improved employment outcomes of people with disabilities. In particular, greater awareness and use of transition research and data as well as the blending and braiding of funding/resources are highlighted. This brief then identifies specific gaps between state-of-the-art and current practices in the final section.

The State of the Art—Promising Practices

The needs of people with disabilities vary considerably based on age, interest, inherent talent, acquired skill, educational attainment, financial resources, and likely other factors. Promoting the successful employment of people with disabilities requires an individualized approach in accord with the principles of independence and self-determination (Baska et al. 2003, 2). This approach, however, may be discarded as impractical for lack of time and resources. Thus, promising practices anticipate and directly address these challenges with new creative approaches.

Leading research discusses essential components to successful transitions from school to employment for youth with disabilities, derived from highly successful model programs. Benz and colleagues identified a) concurrently targeting services on school completion and postschool planning; b) ensuring curricular relevance and student-centered planning (i.e., self-determination); and c) expanding collaborative service delivery (Benz et al. 2000). Their empirical analysis of Oregon's Youth Transition Program (YTP) further supports a) one to two years of career-related, paid work experience; b) personalized attention for transitioning youth; c) services coordinated via interagency agreement; and d) joint funding of key staff positions (Horne and Hubbard 1995, 510–12).⁵⁶ Izzo and Lamb's evaluation of YTP and three other model programs found that essential components include the following: a) school and agency coordination of assessment and planning; b) self-determination of jobs that match abilities and interests; c) "work-based training . . . in both school and community employment settings;" d) blending and braiding of resources/funding for critical program elements; and e) service follow-up (Izzo and Lamb 2002).

Solid research on transition outcomes is limited by the availability of systematic data. This part offers an overview of two promising strategies for promoting the successful employment of

people with disabilities: namely, expanded use of and support for a) transition research and data and b) blending and braiding of funding/resources.

Expanded Use of Transition Research and Data

The U.S. Department of Education (ED) mandates that states collect data tracking the transition of students with disabilities from secondary school into the postsecondary world. This data collection is part of the Annual Performance Report (APR), a larger reporting requirement of state progress and slippage in all areas of IDEA implementation.⁵⁷ Washington state, for example, has tracked these students since 1998 with the help of 31 participating school districts, growing to 219 school districts in the 2004 study (CCTS 2005). Annual reports to Washington's state super-intendent of instruction offer state-specific guidance for the development and implementation of best policy and practices. The Center for Change in Transition Services (CCTS) at Seattle University uses the data when working directly with school districts to evaluate and improve existing programs, practices, and collaboration, and to design and implement promising new practices throughout Washington state. CCTS has documented the importance of identifying agency links as part of transition planning in a student's Individual Education Plan and the increase in agency link identification through this work (CCTS 2005, 20–24).

The Institute of Education Sciences, Department of Education, funds the National Longitudinal Transition Study-2 (NLTS2), which tracks progress over a 10-year period of more than 12,000 youth with disabilities randomly selected from over 500 representative participating U.S. school districts (NLTS 2006). NLTS2 derives national trends and characteristics associated with best policy and practice via "generating information on the experiences and achievements of youth with disabilities in multiple domains during their secondary years and in transition to young adulthood" (Wagner et al. 2005). NLTS2 evaluates a wide range of factors including student and household characteristics, emerging independence, social involvement, citizenship, school dropout, preparation for work, employment, and postsecondary education. A 2005 NLTS2 report, in part, concluded the following: a) 9 percent of postsecondary youth with disabilities (PSYD) attend a four-year college compared with over 40 percent of their peers without disabilities, b) just over 40 percent of PSYD are employed compared with 63 percent of their peers without disabilities, and c) female and male PSYD have seen marked decreases and increases, respectively, in having low-paying personal-care jobs and better-paying trade jobs (Wagner et al. 2005). Reports generated from NLTS2 data are distributed widely and used to support the research, programs, and initiatives of leading scholars, think tanks, and advocates.⁵⁸

Another promising source of data is the National Post-School Outcomes (NPSO) Center (NPSO 2005). Funded by the Office of Special Education Programs, Department of Education, for 2004–2009, the stated mission of the NPSO Center is "to help state education agencies establish practical and rigorous data collection systems that will measure and profile the post-school experiences of youth with disabilities. The results will be used for national, state, and local reporting and—most importantly—to guide and improve transition services to this population" (NPSO 2005). NPSO has reached out to and received at least one request for technical assistance from 92 percent of the states regarding the development and implementation of a data collection system (Mank 2005).

Expanded Use of Blending and Braiding Strategies

The providers of employment, education, rehabilitation, and training services commonly compete for federal, state, local, grant, and private funds. Consumers of these services often have little or no means of paying. Service providers, consequently, can be reluctant to collaborate out of concern for sharing their present limited and future unknown resources, or that their mission and likelihood for future funding under a particular funding scheme would be endangered (Harrison et al. 1990; Flynn and Hayes 2003). Consequently, services become disconnected and duplicative (Harrison et al. 1990, 70). Nonetheless, providers understand intuitively that pooling their resources offers a "collaborative advantage" for far more successful outcomes (Huxham and Vangen 2000; ESSRTC 2005).

Research evaluating model transition programs, as reviewed above, found highly collaborative interagency services, joint funding of key personnel, and the sharing of resources to be essential for effectively supporting youth with disabilities as they transition from the last two years of high school into the first two postsecondary years (Benz et al. 2000; Izzo and Lamb 2002). Implementing written interagency agreements between schools and adult service agencies, for instance, is a key organizational factor used by exemplary transition programs (NCD 2004). Yet, NCD concluded that state and local entities receiving federal funds specifically for transition largely do not collaborate effectively to meet the individual needs of youth with disabilities (NCD 2000b, 61).

Blending and braiding strategies provide opportunities for schools, workforce investment programs, human service agencies, and others to direct portions of their individual program funds toward common and collaborative goals that meet the individual education and employment needs of a broad range of people with disabilities (NCWD 2006, 1).⁵⁹ These strategies also provide for cost sharing of otherwise duplicative services (CNY Works Career Center 2006). Blending strategies collect funds from multiple sources into an indistinguishable pool, which may attract accountability concerns from funding sources (NCWD 2006, 1). Braiding strategies "tap into existing categorical funding streams" and remain visible for accountability (NCWD 2006, 3). For instance, Florida's passage of the School Readiness Act⁶⁰ in 1999 created a program of "integrated early care and education services" using pooled federal and state funds including Florida First Start, literacy initiatives, pre-K early intervention, migrant pre-K services, and child care and teen parent programs (Flynn and Hayes 2003, 15). This pooling was made possible by the state's granting local authority over these funds to approved county coalitions. A strategy suited to a consortium of service providers to greatly enhance the quality and continuity of services involves each provider contributing a small annual amount to a pool with a common purpose (NCWD 2006, 2).

A service provider also may facilitate highly individualized services by braiding funds into supporting the person-centered goals of a specific individual, on a case-by-case basis. A model agency, Onondaga Community Living (OCL), has earned an international reputation coordinating highly person-centered services for adults with developmental disabilities.⁶¹ Placing the self-identified vocational and residential needs of the person with a disability seeking services first, the person, his or her close circle of family and friends, and OCL staff design a plan of optimum services and supports. Then, they match various (and usually multiple) funding streams (e.g., Medicaid, state Vocational Rehabilitation and MR/DD (Mental Retardation/Developmental Disability), Supplemental Security Income/Social Security Disability Insurance, Individualized Support Services contracts, grants, and others) to the plan (Fratangelo et al. 2001, 8–29, 33, 59, 63). OCL's highly innovative model is in direct contrast to the standard service model where the consumer takes what services he or she can get based upon existing funded programs (e.g., a group home or training program vacancy) (Fratangelo et al. 2001, 28–29, 32–33, 36, 111). Moreover, OCL's success demonstrates that highly individualized services and supports can be cost effective (Fratangelo et al. 2001, 94).

The State of the World

Present Use of Transition Research and Data

The Center for Workers with Disabilities, the U.S. Government Accountability Office, and the Center on Disability Studies reviewed programs implementing model transition practices in more

than 23 states, but these services reach only a small portion of youth with disabilities (Suchman 2006, 28; U.S. GAO 2006; Hawaii RRTC 2003). The NLTS2 identifies national trends and characteristics associated with successful policy and practice for the transition of youth with disabilities into the postsecondary world. Similarly, DoE receives annual data from the states tracking transition services and outcomes for students with disabilities. Presently, it is not certain whether state and local education agencies, and potential community partners, seek to learn from and apply this new information (NCD 2000b, 43). Of 10 state department of education Web sites searched, a) one state applied NLTS2 information for use in its mandated transition planning, b) the same state in a separate document and another state cited NLTS2 for its findings, and c) a third state discussed the NLTS2 study, but in a newsletter generated by the state's department of labor.⁶² The other seven states made no apparent use of, or reference to, the NLTS2.⁶³

Of central importance, DoE mandates that states collect and use transition data to inform and improve transition outcomes for students with disabilities (OSEP 2005, 4). Until recently, broad differences existed in the quality of methods and data among the states.⁶⁴ Since 2004, the Office of Special Education Programs (OSEP) in the DoE has cosponsored annual National Account-ability Conferences "to provide guidance to States regarding the preparation and submission of a comprehensive APR" (OSEP 2005, 3). NPSO has invested significant time and resources into developing high-quality data-collection protocols and checklists, and disseminated these with moderate success, though few state education agencies have adopted the NPSO protocols (Mank 2005, 3–4; NPSO 2006a). Moreover, the intense emphasis on collecting data for demonstrating progress toward successful postsecondary school or employment outcomes appears to supersede the need to ensure the collection of data, and interpreting that data, for the purpose of develop-ing and implementing scientifically rigorous and effective transition services (NPSO 2006b). Research suggests that an overemphasis on results "may be producing unintended and undesirable consequences for . . . youth with disabilities" (Benz et al. 2000, 526).

Present Use of Blending/Braiding Strategies

The success of blending/braiding strategies turns on many factors. Where agency and service provider collaboration is necessary, success presupposes that the various services, programs, and supports are aware of one another. This, however, may not be the case. The Workforce Investment Council recently found its role of coordinating job training in the District of Columbia impossible. "Nobody knew exactly what programs were out there until completing a six-month study revealing 61 federal and local programs" (Irwin 2006).⁶⁵ Another study of a university/commu-

nity partnership to improve local employment outcomes demonstrates failed collaboration amid immense bureaucratic and legal difficulties (Mayfield and Lucas 2000).

Yet, blending/braiding strategies have become more commonplace and successful. In Utah the Department of Work Services and the State Office of Rehabilitation have "jointly-funded services in job development and placement in an effort to increase competitive employment outcomes for . . . job seekers with disabilities" (NCWD 2006, 4). Their partnership authorizes data and information exchange, including that of wages earned, participation in public assistance, and employment planning, which has led to time-saving strategies, less duplication, faster response time, and improved placement rates, earnings, and retention (NCWD 2006, 4). Similarly, through a functional alignment initiative, the CNY Works Career Center has braided WIA Title IB and Wagner-Peyser services funds to streamline service provision, increase the hours of operation to include evenings and weekends, eliminate duplicative costs, increase market penetration, broaden job seeker access to data and management information systems, and share the customer pool (CNY Works Career Center 2006, 4).⁶⁶

Gaps in Policies

The innovative practices and initiatives discussed in this brief have great potential for enhancing the employment outcomes of people with disabilities. Their application, at present, has not generated a broad-scale, scientifically rigorous, and effective impact.

Transition Research and Data

Emerging large-scale longitudinal transition data and scientifically rigorous practices, which effectively facilitate the move of youth with disabilities into postsecondary training and/or the workforce, provide a rich resource for teacher preparation programs, state and local education agencies, and workforce investment boards. NLTS2 may offer the best data for informing transition policy and practice, though it appears to be significantly underutilized. In contrast, state and local education agencies painstakingly attend to meeting the accountability requirements of their Annual Performance Reports for DoE. It is not clear that transition outcomes for students with disabilities are improving as a result of these accountability efforts, which are heavily focused on compliance and performance data.⁶⁷ It remains to be seen whether this data will be translated into effective practices, or be overshadowed by accountability as an end in and of itself.

Blending/Braiding Strategies

The research on effective collaboration suggests the importance of a) developing new ways to meet community needs (e.g., interagency agreements, collaborative grant writing); b) effective interagency communication; c) networking (e.g., sharing information and contacts); d) being responsive (e.g., flexibility and timely response); and e) neutralizing territory issues (e.g., shared ownership and credit, inclusive planning) (Harrison et al. 1990, 73–75). Promising applications of blending/braiding strategies and considerations for implementation, primarily addressing education and employment, are becoming widely promoted and available (Fratangelo et al. 2001). Frequently, legislative, agency, and/or systems change is necessary to permit the flexibility necessary for effective use of these strategies (NCWD 2006, 1; Fratangelo et al. 2001, 35–36, 96). The reach of blending/braiding strategies, however, is not well known, and the efficacy of broad application has yet to emerge in the published research.

Additional Resources

- Casey Family Programs. (2006). It's my life: Postsecondary education and training. Retrieved June 27, 2007 from http://www.casey.org/NR/rdonlyres/92960D67-DDA4-4E50-9E4F-D52315D55D45/746/CaseyPostSecondaryGuide021306.pdf
- Employment Service Systems Research and Training Center (ESSRTC). (2005). Retrieved June 27, 2007 from http://essrtc.org
- Heath Resource Center, George Washington University. (March 2006). *Guidance and career counselor's toolkit: Advising high school students with disabilities on postsecondary options*. Retrieved June 27, 2007 from http://www.heath.gwu.edu/Toolkit/Toolkit.pdf
- Kolben, N., & Paprocki, C. (2001). Next steps in blended funding: A policy recommendation. Early Childhood Strategic Group. Retrieved June 27, 2007 from http://www.nycenet.edu/opm/ vendor/rfppdf/blendedfunding.pdf
- National Collaborative on Workforce and Disability (NCWD). (January 2006). Youth, blending and braiding funds and resources: The intermediary as facilitator. *Info Brief*. Retrieved June 27, 2007 from http://www.ncwd-youth.info/resources_&_Publications/information_Briefs/ issue18.html
- National Council on Disability (NCD). (2000). *Transition and post-school outcomes for youth with disabilities: Closing the gaps to post-secondary education and employment*. Retrieved

June 27, 2007 from http://www.ncd.gov/newsroom/publications/2000/pdf/transition_11-1-00.pdf

- National Longitudinal Transition Study-2 (NLTS2). (2005). *NLTS2 home and news*. Retrieved June 19, 2006, from http://www.nlts2.org
- Stodden, R., Jones, M., & Chang, K. (2002). Services, supports and accommodations for individuals with disabilities: An analysis across secondary education, postsecondary education, and employment. NCSET White Paper. Retrieved June 27, 2007 from http://www.rrtc.hawaii. edu/documents/products/phase3/01.pdf
- ThinkCollege.net. (2006b). *The new frontier*. Retrieved June 19, 2006, from http://www. thinkcollege.net

References

- Alliance Project. (1999, July). Gender as a factor in special education eligibility, services, and results. Alliance Project, Vanderbilt University. Retrieved June 27, 2007 from http://www.al-liance2k.org/products/4009.pdf
- Baska, L., et al. (2003). The community transition program: Experiences starting a communitybased program for students ages 18–21. Department of Special Education, University of Kansas. Retrieved June 27, 2007 from http://raven.cc.ku.edu/~tcacs/new/files/47365_FINAL_ WEB.pdf
- Benz, M. R., et al. (2000). Improving graduation and employment outcomes of students with disabilities: Predictive factors and student perspectives. *Exceptional Children* 66: 509, 516–27.
- Blanck, P., Hill, E., Siegal, C., & Waterstone, M. (2003). *Disability civil rights law and policy*. St. Paul, MN: Thomson/West Publishers.
- Casey Family Programs. (2006). It's my life: Postsecondary education and training. Retrieved June 27, 2007 from http://www.casey.org/NR/rdonlyres/92960D67-DDA4-4E50-9E4F-D52315D55D45/746/CaseyPostSecondaryGuide021306.pdf
- Center for Change in Transition Services (CCTS). (2005). Post-school status report: 2004. Special education graduates, 4 (July). Center for Change in Transition Services, Seattle University. Retrieved June 27, 2007 from http://www.seattleu.edu/ccts/docs/ 2004%20Postschool%20Data%20Report.pdf
- CNY Works Career Center. (2006). Functional Alignment Plan 4. Retrieved June 27, 2007 from http://www.cnyworks.com/Onondaga%20-%20Functional%20Alignment%20Narrative.pdf

- Cornell RRTC. (2005). 2004 Disability status reports: United States, 18. Cornell University. Retrieved June 27, 2007 from http://adaptiveenvironments.org/documents/2004_Disability_ Status_Report.pdf
- Employment Services System Research and Training Center (ESSRTC). (2005). Research Project 1 description: The Consortium for Employment Success Model (CES): Executive summary. Retrieved June 27, 2007 from http://www.essrtc.org/projects/project12.lasso
- Flynn, M., & Hayes, C. D. (2003). Blending and braiding funds: To support early care and education initiatives, 8–10 (January). Retrieved June 27, 2007 from http://www.financeproject. org/Publications/FP%20Blending%20Funds%201_24.pdf
- Fratangelo, P., et al. (2001). One person at a time: How one agency changed from group to individualized services for people with disabilities. St. Augustine, FL: Training Resource Network, Inc.
- Gill, M. (2005). The myth of transition: Contractualizing disability in the sheltered workshop. *Disability & Soc 'y* 20: 613–14.
- Harrison, P. J., et al. (1990). Determining success in interagency collaboration: An analysis of processes and behaviors. *Infants & Young Children* 3: 69, 73–75.
- Hawaii RRTC. (2003). RRTC products. Rehabilitation Research and Training Center, University of Hawai'i at Manoa. Retrieved June 27, 2007 from http://www.rrtc.hawaii.edu/products/ default.htm
- Heath Resource Center. (2006, March). *Guidance and career counselor's toolkit: Advising high school students with disabilities on postsecondary options*. George Washington University. Retrieved June 27, 2007 from http://www.heath.gwu.edu/Toolkit/Toolkit.pdf
- Hehir, T. (2002). Eliminating ableism in education. Harvard Educ'l Rev. 72: 1–32.
- Horne, R. L., & Hubbard, S. (1995). The Youth Transition Program: Case study report. Washington, DC.: National Institute of Work and Learning Education, Academy for Educational Development.
- Houtenville, A. J., & Daly, M. C. (2003). Employment declines among people with disabilities:
 Population movements, isolated experience, or broad policy concern? In D. C. Stapleton &
 R. V. Burkhauser (Eds.), *The decline in employment of people with disabilities: A policy puzzle*. Kalamazoo, MI: W. E. Upjohn Institute for Employment Research.

- Huxham, C., & Vangen, S. (2000). Ambiguity, complexity and dynamics in the membership of collaboration. *Human Relations* 53: 771, 800.
- Irwin, N. (2006). Red tape ties up D.C.'s unemployed. Washington Post, February 13, 2006, A1.
- Izzo, M., & Lamb, P. (2002). Self-determination and career development: Skills for successful transitions to postsecondary education and employment. NCSET White Paper. Retrieved June 27, 2007 from http://www.ncset.hawaii.edu/Publications/pdf/self_determination.pdf
- Kaestle, C. F. (2000). Toward a political economy of citizenship: Historical perspectives on the purposes of common schools. In L. M. McDonnell, P. M. Timpane, & R. Benjamin (Eds.), *Rediscovering the democratic purposes of education*. Lawrence: University Press of Kansas.
- Kolben, N., & Paprocki, C. (2001). Next steps in blended funding: A policy recommendation. Early Childhood Strategic Group. Retrieved June 27, 2007 from http://www.nycenet.edu/opm/ vendor/rfppdf/blendedfunding.pdf
- Law, Health Policy & Disability Center (LHPDC). (2005). *Disability Program Navigator Initiative: Process evaluation analysis, Quarter Seven addendum,* 4, July–September. Law, Health Policy & Disability Center, University of Iowa. Retrieved June 27, 2007 from http://disability. law.uiowa.edu/dpn/grant/index.html
- Lehr, C. A., & McComas, J. (2005). Students with emotional/behavioral disorders: Promoting positive outcomes. *Impact* 18: 2–3, 37. Retrieved June 27, 2007 from http://ici.umn.edu/ products/impact/182/182.pdf
- Mank, D. (2005). The National Post-School Outcomes Center at the University of Oregon: External evaluation, 4 (December). Retrieved June 27, 2007 from http://www.psocenter.org/ Docs/monthly_reports/2006/MankYR1finalrptDec05.doc
- Mayfield, L., & Lucas, E. P., Jr. (2000). Mutual awareness, mutual respect: The community and the university interact. *Cityscape* 5: 173, 179–83.
- Mutua, N. K., & Elhoweris, H. (2002). Parents' expectations about the postschool outcomes of children with hearing disabilities. *Exceptionality* 10: 189–201.
- Myhill, W. N. (2004). No FAPE for children with disabilities in the Milwaukee Parental Choice Program: Time to redefine a free appropriate public education. *Iowa L. Rev.* 89: 1051, 1055–57.
- National Center for Special Education Accountability Monitoring (NCSEAM). (2004). National Accountability Conference on Special Education and Early Intervention. Louisiana State University Health Sciences Center. Retrieved June 27, 2007 from http://www.monitoringcenter. lsuhsc.edu/AccountabilityConference.htm

- National Collaborative on Workforce and Disability (NCWD). (2006). Youth, blending and braiding funds and resources: The intermediary as facilitator. *NCWD/Y Info Brief*, January. Retrieved June 27, 2007 from http://www.ncwd-youth.info/assets/info_briefs/infobrief_issue18. pdf
- National Council on Disability (NCD). (2000a). *Back to school on civil rights* 8: 89. Retrieved June 27, 2007 from http://www.ncd.gov/newsroom/publications/2000/pdf/backtoschool.pdf
- —. (2000b). Transition and post-school outcomes for youth with disabilities: Closing the gaps to post-secondary education and employment, 61. Retrieved June 27, 2007 from http://www. ncd.gov/newsroom/publications/2000/pdf/transition_11-1-00.pdf
- —. (2003). People with disabilities and post-secondary education: Position paper, September 15. Retrieved June 27, 2007 from http://www.ncd.gov/newsroom/publications/2003/ education.htm
- —. (2004). Improving educational outcomes for students with disabilities 60, May 17. Retrieved June 27, 2007 from http://www.ncd.gov/newsroom/publications/2004/pdf/ educationoutcomes.pd
- National Longitudinal Transition Study (NLTS). (2006). *National Longitudinal Transition Study-*2 (NLTS2) FAQ. Retrieved June 19, 2006, from http://www.nlts2.org/nlts2faq.html
- National Post-School Outcomes Center (NPSO). (2005). About us. National Post-School Outcomes Center. Retrieved June 27, 2007 from http://www.psocenter.org/about.html
- —. (2006a). Draft post-school outcomes data collection procedures checklist. National Post-School Outcomes Center. Retrieved June 27, 2007 from http://www.psocenter.org/Docs/ datacollectionChklist.doc
- —. (2006b). Post-school data collection protocol, stage 1: Recommended essential questions to address Indicator #14, Student Demographic Profile (SDP) and post-school data collection survey (PSS), 3–6 (2006). National Post-School Outcomes Center. Retrieved June 27, 2007 from http://www.psocenter.org/Docs/DataCollfinalrev050106.doc
- NICHCY. (2003). Who are the children in special education? *Research Brief (RB2)*, June. Retrieved June 27, 2007 from http://www.nichcy.org/pubs/research/rb2txt.htm
- Office of Special Education Programs (OSEP). (2005). *Annual performance report technical assistance document* (January). Office of Special Education Programs, DoE.
- Paul, S. (2000). Students with disabilities in higher education: A review of the literature. *Coll. Student J.* 34: 200, 203–06.

- Rao, S. (2004). Faculty attitudes and students with disabilities in higher education: A literature review. *Coll. Student J.* 38: 191, 197.
- Shaw, S. F., & Dukes, L. L. III (2005). Performance indicators for postsecondary disability services. J. Developmental Educ. 29: 10–14.
- Stodden, R., Jones, M., & Chang, K. (2002). Services, supports and accommodations for individuals with disabilities: An analysis across secondary education, postsecondary education, and employment. NCSET White Paper, 2002. Retrieved June 27, 2007 from http://www.rrtc. hawaii.edu/documents/products/phase3/01.pdf
- Suchman, A.I. (2006). *Transition for youth with disabilities: A look at state programs, progress, and promising practices*. Center for Workers Disabilities. Retrieved June 27, 2007 from http://www.aphsa.org/disabilities/publications/docs/Transition%20for%20Youth%20With%20Disabilities%20FINAL.pdf
- ThinkCollege.net. (2006a). References related to postsecondary education. Retrieved June 19, 2006, from http://www.thinkcollege.net/resources/index.php?page=references
- ----. (2006b). The new frontier. Retrieved June 19, 2006, from http://www.thinkcollege.net
- U.S. GAO. (2005). *Federal disability assistance: Wide array of programs needs to be examined in light of 21st century challenges*, 22–23. GAO-05-626, June 2005. Retrieved June 27, 2007 from http://www.gao.gov/new.items/d05626.pdf
- —. (2006). Helping California youths with disabilities transition to work of postsecondary education. GA-06-759SPO (June), U.S. Government Accountability Office. Retrieved June 27, 2007 from http://www.gao.gov/new.items/d06759sp.pdf
- Wagner, M. M., & Blackorby, J. (1996). Transition from high school to work or college: How special education students fare. *Future Children* 6: 103–20. Woodrow Wilson School of Public and International Affairs, Brookings Institution. Retrieved June 27, 2007 from http://www. futureofchildren.org/usr_doc/vol6no1ART6.pdf
- Wagner, M., & Cameto, R. (2004). The characteristics, experiences, and outcomes of youth with emotional disturbances. *NLTS2 Data Briefs* 2: 1–8 (August). Retrieved June 27, 2007 from http://www.ncset.org/publications/nlts2/NCSETNLTS2Brief_3.2.pdf
- Wagner, M., et al. (2005). After high school: A first look at the postschool experiences of youth with disabilities, at ES-1. NLTS2, SRI International, April 2005. Retrieved June 27, 2007 from http://www.nlts2.org/pdfs/afterhighschool_report.pdf

- Wheaton, J. E., & Hertzfeld, J. (2002). Ancestry and severity of disability: A national study. *Rehab. Counseling Bull.* 45: 154, 159.
- Zaslow, J. (2005). When disabled children get too old for public education. *Wall Street Journal*, June 30, D1. Retrieved June 27, 2007 from http://www.careerjournal.com/columnists/movin-gon/20050701-movingon.html

Housing and Livable Communities Employment Issue Brief #11 National Council on Disability

Abstract

A livable community should a) provide affordable, appropriate, accessible housing; b) ensure accessible, affordable, reliable, and safe transportation; c) adjust the physical environment for inclusiveness and accessibility; d) provide work, volunteer, and education opportunities; e) ensure access to key health and support services; and f) encourage participation in civic, cultural, social, and recreational activities.⁶⁸ Within each of these six areas, a livable community strives to maximize people's independence, ensure safety and security, promote inclusiveness, and provide choice. Though no one community in the United States has addressed all six of these livability goals to equal degrees, many states, counties, and local communities have made extraordinary improvements in their livability for people with disabilities in one or even several of these areas. Their experiences and achievements can serve as inspiration and provide replicable best practices that other communities can emulate as they strive to become more livable.

Introduction

Employment of people with disabilities is affected by access to quality housing in livable communities. Employers are less likely to hire employees who do not have stable housing arrangements. Where accessible housing is sparse, it will be more difficult for people with disabilities to find adequate housing that is close to good jobs. Inaccessible living arrangements can make it difficult for an employee to leave the home to go to work, or can create extra demands on time and energy that take away from one's time for employment. In addition, lack of accessibility can decrease the possibilities of working from home as a telecommuter or entrepreneur. Employment also is affected by other aspects of community life, such as access to social and community activities that often lead to employment opportunities. In light of the many connections that housing has to employment, this document reviews issues and strategies related to creating accessible housing and livable communities for people with disabilities.

Statistics:

"The percentage of people with disabilities living in owner occupied housing decreased from 63.7 percent in 2003 to 63.4 percent in 2004, in the U.S." (Cornell RRTC 2005)

"The percentage of working-age people without disabilities living in owner occupied housing increased from 69.5 percent in 2003 to 69.9 percent in 2004, in the U.S." (Cornell RRTC 2005)

"The difference in the percentage living in owner occupied housing between working-age people with and without disabilities increased from 5.7 percentage points in 2003 to 6.5 percentage points in 2004, in the U.S." (Cornell RRTC 2005)

Success Stories:

Accessible Homes: "Three-year-old Kenny nearly drown[ed] when he fell into a neighbor's swimming pool. He was rushed to a nearby hospital and then transported by helicopter to Johns Hopkins Hospital in Baltimore. During his eight months at the hospital, where he remained in a coma, his mother, Karen, remained by his side day and night. On mostly unpaid leave from her employer, Karen and her family experienced severe financial burdens. 'We'd always had good credit before, but the time I was off work changed all that,' Karen said. The family wanted to build an addition with a bedroom and bathroom for Kenny with enough space for the nurses who would be caring for Kenny when he came home. But they did not qualify for a conventional loan due to poor credit. A neighbor showed Karen an article about Maryland's Assistive Technology Guaranteed Loan Program. 'I couldn't believe it. It was such a blessing. We got a loan and were able to put the addition on the house. It's accessible, and the rest of the family has privacy when the nurses are here,' Karen said. 'Without this program, there's no way Kenny could have come home.' Since Kenny returned home, he has grown more responsive and regained some mobility, he even started to breathe on his own." (RESNA 2006)

Independent Living: "Mary taught children with learning disabilities for 20 years but was forced to retire from her teaching job when she experienced post-polio syndrome, with severe fatigue and muscular weakness. Her left arm no longer functioned and she needed a motorized wheelchair to continue living independently. Mary wanted to buy a \$5,000 wheelchair but could not afford it on her fixed income. The United Cerebral Palsy Association offered \$2,500 toward the chair if Mary could find matching funds. After calling 50 organizations and being turned down, Mary was stymied. Then she learned of the Kansas Assistive Technology Cooperative (KAT-

CO), which offered a low-interest loan program. Mary purchased her wheelchair and continues to live independently. 'It gives you a sense of dignity because it's a loan,' Mary said. 'I'm paying for half.'" (RESNA 2006)

Home Modifications for Home Business: "Tom received approval for a \$24,000 grant from the state of Pennsylvania, through a program that promotes employment of people with disabilities to make significant modifications to his home to run his small business. However, the state program would provide reimbursement only after the home modifications were made. Tom did not have the \$24,000 necessary to start and complete the needed modifications. Through the loan program with the Pennsylvania Assistive Technology Foundation (PATF), Tom was able to borrow the \$24,000 to make the modifications, which he plans to pay back with the state grant money once his home modifications are completed." (RESNA 2006)

Successes Based on Federal Legal Enforcement:

Louisiana Department of Health and Hospitals

Allegation:

The complainant, a 24-year-old man with paraplegia, had been residing in a nursing home for four years and sought community services. He alleged that the State's failure to provide him with community services denied him the opportunity to receive services in the most integrated setting appropriate to his needs.

Disposition:

After OCR [Office for Civil Rights] initiated its investigation and began communicating with the State about this matter, the complainant was discharged from the nursing home, began receiving services from a personal-care attendant, and began receiving training to obtain part-time employment." (OCR Docket # 00-00828)⁶⁹

Wisconsin Department of Health & Family Services/Sheboygan County, Wisconsin Department of Human Services

Allegation:

The complaint alleged that the State discriminated against a man with cognitive and physical impairments on the basis of disability by failing to provide him the residential and supported employment services that he had tried to obtain on his own for 5 years. As a result, the complainant alleged he was at risk of unnecessary institutionalization.

Disposition:

Working with the State, OCR helped secure 7 hours per month of Supported Employment job coaching for the complainant; 3 hours of support per week

for housekeeping, shopping, and other tasks the complainant cannot perform on his own; and 2 hours of support 2 days per week to help the complainant develop additional self-help skills. In addition, the State bore the cost for the complainant's specialized transportation service." (OCR Docket # 05023004)⁷⁰

Promising Programs and Practices:

"The American Congress of Community Supports and Employment Services (ACCSES) is a national, nonprofit organization of vocational rehabilitation service and community supports committed to maximizing employment opportunities and independent living for individuals with mental and physical disabilities."⁷¹

The Corporation for Supportive Housing (CSH): "This page includes tools and resources on how to plan, operate and finance employment services; descriptions of different services models; lessons learned, and best practices. It is especially for housing developers, service providers, and supportive housing advocates, providing access to several employment-related CSH publications and reports."⁷²

Strategies for Creating Successful Housing Initiatives and Livable Communities

In its report on livable communities, NCD documents six strategies to improve community livability that represent promising practices. These strategies demonstrate how coordination at all levels of government, and of public and private sectors, is necessary to truly ensure that we have removed the barriers that prevent agencies at all levels from working together to safeguard our citizens and communities—as well as support independent living among people with disabilities and promote their inclusion in all aspects of society.

As the statistics, success stories, and efforts of promising programs demonstrate, the ability to live independently and the ability to have successful employment are interconnected issues that provide much of the foundation for livable communities. People with disabilities cannot transition to employment from institutions as easily as they can from homes. Similarly, people with disabilities cannot easily support their independent living needs without employment. In order to maximize independence and choice for people with disabilities, livable communities must provide for both.

Strategy One: Coordination on Interagency Consumer Information Management and Consumer Access to Programs and Benefits

Communities that are inclusive are ones that enable people to live as independently as possible. Many federal, state, and local programs exist to help community members with their everyday needs; however, these programs are often disjointed and place the burden of coordination on consumers. This first strategy identifies model programs that can provide coordinated access points for consumers to avail themselves of the myriad benefits available to them.

Aging and Disability Resource Centers

Long-term services and supports systems in many states are fragmented and disjointed, with many public and private programs and services delivered by a variety of agencies and organizations. The navigation of the long-term services and supports system can be confusing and frustrating for older people and people with disabilities of all ages and their family members. The Aging and Disability Resource Center (ADRC) grant program was established to pilot new approaches to interagency coordination that improve access and availability of information to meet the needs of the target populations. ADRC programs provide information and assistance and serve as the entry point to publicly administered long-term supports. Resource centers will also improve the states' ability to manage public resources and monitor program quality through centralized data collection and evaluation.

ADRCs offer advice and assistance to individuals with disabilities across the age spectrum as well as to physicians, hospital discharge planners, and other professionals who work with older people or people with disabilities. Services offered through the single entry point can be grouped into six areas: a) information and assistance; b) long-term services and supports counseling; c) benefits counseling; d) emergency response; e) prevention and early intervention; and f) access to family care benefit.

2-1-1 Community Information and Referral Services

2-1-1 is a phone number designated by the Federal Communications Commission to be used exclusively for community information and referral purposes. There are 157 active 2-1-1 systems in 32 states that provide consumers with centralized information and referral to basic human needs resources, physical and mental health resources, employment support, support for older people and people with disabilities, and support for children, among other services.

Almost 900,000 nonprofit organizations in the United States plus scores of government agencies provide services. People looking for assistance have trouble navigating this complicated web of health and human service programs; often people do not know where to begin. 2-1-1 consolidates disparate information and referral services, saving money. A national cost-benefit analysis conducted by the University of Texas estimates a net value to society of a national 2-1-1 system approaching \$130 million in the first year alone and a conservative estimate of \$1.1 billion over ten years.⁷³ Moving forward, it will become important to address accessibility of 2-1-1 telephone and Web site services for people with disabilities, which currently vary from community to community.

Strategy Two: Financial Incentives via Tax Credits

The Low Income Housing Tax Credit

Housing is a cornerstone of livable communities, and the demand for affordable, accessible housing for people with disabilities has not gone unaddressed by the Federal Government. As part of the Tax Reform Act of 1986, the Federal Government created the Low Income Housing Tax Credit (LIHTC) to encourage the production and redevelopment of livable, affordable rental housing across the nation and it is a significant source of financing for developers seeking to construct and rehabilitate housing opportunities for people with disabilities.

Virtually all people with disabilities receiving Supplemental Security Income are theoretically eligible for the affordable housing units in LIHTC properties because they have incomes far below 50 percent or 60 percent of area median income (Cooper and O'Hara 2005). However, the problem for many people with disabilities is that, given their income, the tax credit rents for the affordable units in LIHTC properties are too high. Nevertheless, as of 2004, the LIHTC program created more than 115,000 affordable rental housing units nationwide each year for low-income families, seniors, the homeless, and people with disabilities.

Each state receives an annual "budget" of tax credit authority that can be used to reduce the federal tax liability of investors in affordable rental developments. The state passes on this tax credit authority to individual developments, based on a Qualified Allocation Plan (QAP). The QAP establishes criteria for the annual selection of developments around the state that will be built or preserved using LIHTC. Through the QAP, state housing planners are in a particularly good position to design housing options for people with disabilities, as other support systems for the same populations are funded and regulated at the state level.

The Homeownership Tax Credit

Proposed in mid-March of 2005, the Homeownership Tax Credit (HOTC) would increase housing opportunities for working families by helping to bridge the gap between what it costs to build homes in lower-income neighborhoods and the price that buyers in those neighborhoods can afford to pay.⁷⁴ The HOTC is another lever through which public-private investments can be created that accelerate the development of sustainable livable communities. The HOTC will help produce roughly 250,000 new homes, almost all for low-income people, over a five-year period.

Strategy Three: Common Performance Measures across Federally Funded Programs

There is an enormous variety of programs designed to help older people and people with disabilities live independently in the community. But how effective are these programs? The following tools facilitate measurement of performance and outcomes and can be applied to a variety of programs that serve people with disabilities and older people.

The Program Assessment Rating Tool

The Office of Management and Budget developed the Program Assessment Rating Tool (PART) to assess and improve program performance so that the Federal Government can achieve better results with its programs. A PART review helps identify a program's strengths and weaknesses to inform funding and management decisions aimed at making the program more effective. PART therefore looks at factors that affect and reflect program performance, including program purpose and design; performance measurement, evaluations, and strategic planning; program management; and program results.

PART's current approach to individual program evaluation is just a starting point, however. To effectively measure programs that serve people with disabilities, the system must also evaluate the real impact that these programs have on the people they serve as well as the extent of collaboration among federal agencies to advance the overall goals of social and economic independence and community inclusion for people with disabilities.

In 2004, the President's Committee for People with Intellectual Disabilities (PCPID) released a report that identified a weakness in PART, namely that there are no measures that evaluate collaboration among related programs across federal agencies. There is also no assessment of agency activity to partner with the private sector and leverage resources to reduce dependence on government. PCPID explains that such measures would "reveal the degree of an existing or total absence of a fluid continuity among agencies and programs. Continuity is very important for people with intellectual disabilities, for their disability or condition continues throughout their lifespan—from early family life, to education, to employment, to community living, and, finally, to retirement and end of life." (PCPID 2004, 19)

The Administration on Aging

AoA is collaborating with more than 20 states to develop standardized performance outcome measures and data-collection instruments to evaluate programs funded by AoA. In addition, the Federal Interagency Forum on Aging Related Statistics is a group of 11 collaborating agencies that has established a set of key indicators that describe the status of the U.S. population age 65 and older. Finally, AoA is sponsoring an initiative to develop and field test a core set of performance measures for state and community programs on aging operating under Title III of the Older Americans Act, called the Performance Outcomes Measure Project.

These measures emphasize individual outcomes related to the health and psychosocial state of the people who are served, including their nutritional risk, physical functioning, emotional wellbeing, social functioning, and satisfaction with the services they receive. Other measures look at the benefits of services that support caregivers and the degree to which people are satisfied with the home care services they receive. Measures also are being developed to capture the performance of the aging network in reducing barriers to services and building the capacity of the aging services system.

Strategy Four: Private Sector Funding and Stimulation of Public-Private Partnerships

Public-private sector partnerships can promote asset development and financial independence among people with low incomes and people with disabilities. Among adults with disabilities, 34 percent live in households with a total income of \$15,000 or less (compared with only 12% of those without disabilities), and approximately 70 percent of people with disabilities are not employed (PCPID 2004). In a recent Harris Survey poll, 39 percent of people with disabilities indicated that the lack of financial resources is the most serious problem they face (N.O.D./Harris 2000). With such a low employment rate, and so little income, people with disabilities, like other low-income families, are the least likely to save money (Leydorf and Kaplan 2001).

Individual Development Accounts

Individual development accounts (IDAs) are "asset development tools"—matched savings accounts that help people with low incomes accrue funds for the purpose of purchasing a first home, paying for postsecondary education, or starting a small business. Generally, IDAs are implemented by community-based organizations in partnership with a financial institution that holds the deposit and enable people to be more self-sufficient. Personal savings can be matched by federal and state governments and/or private sector organizations, generally at rates of 1:1, 2:1, or other more generous matches. In addition, an account holder usually receives financial counseling when he or she opens an IDA. Since 1991, at least 500 community-based IDA programs have been developed in 49 of 50 states and an estimated 20,000 IDAs have been established in the United States (Edwards and Mason 2003).

IDAs benefit communities as funds are reinvested immediately back into the community. The Corporation for Enterprise Development "estimates that each federal dollar invested in IDAs would yield a return of approximately five dollars to the national economy in the form of new businesses, additional earnings, new and rehabilitated homes, reduced welfare expenditures, and human capital associated with greater educational attainment."⁷⁵

States and IDAs

Federal IDA-related legislation has influenced state IDA-related legislation, and vice versa. Many states have amended IDA legislation in ways that minimize restrictions and facilitate program delivery across diverse areas, supporting diverse populations. At the present time, 24 state-supported IDA programs are in operation and five programs are in the planning stages.

State IDA policy has strongly influenced federal IDA policy as well as growth of the IDA field. Significant state contributions to IDA policy include a) exempting the earnings on IDA savings from taxation; b) exempting IDA deposits as assets when determining qualifications in stateadministered means-tested programs; c) allowing IDA uses beyond home ownership; d) establishing IDAs for children; e) removing restrictions from early IDA program designs; f) including American Indians in program planning and implementation; g) identifying and establishing a wide variety of funding streams at the federal, state, and local levels; and h) establishing the use of tax credits as a funding source for IDAs.

Strategy Five: Consolidation of Administration of Programs and Improved Access

Access to employment and transportation—which are inextricably linked—is among the most vexing barriers that people with disabilities face, partly because of lack of coordination among the various agencies and programs involved. The Workforce Investment Act (WIA) offers one of the most significant attempts to date to reexamine the way services are delivered to individuals in need of public assistance that recognizes the importance of consolidating categorical programs and streamlining service delivery to more efficiently and effectively meet the needs of target populations.

The Workforce Investment Act

WIA was passed by Congress in 1998 to better serve job seekers with and without disabilities as well as employers through a new framework that brings together multiple federal employment and training programs into a unified system of support. The single system is anchored by comprehensive One-Stop Centers in each workforce investment area in all 50 states. More than 80 percent of the state One-Stop Center plans include people with disabilities and/or representatives of public and private agencies, such as vocational rehabilitation programs, that serve people with disabilities in the state plan development process (Morris and Silverstein n.d.).

WIA regulations identify 11 categories of core services, including initial assessment, job search, placement and career counseling information and referral to supportive services, and follow-up on services.⁷⁶ Job seekers in need of additional assistance may be eligible for intensive services. Intensive services may include development of an individual employment plan, individual and group counseling, case management, and short-term prevocational services.⁷⁷ As a result of more comprehensive and specialized assessment of skill levels and service needs, a job seeker may be identified as a candidate for training services that include occupational skills training, skills upgrading and retraining, adult literacy, and customized training with a commitment to hire the individual on completion of the training.⁷⁸

United We Ride

United We Ride (UWR) is a relatively new program that provides information, technical assistance, and grants to states to develop and implement comprehensive action plans for coordinating human service transportation to make it more cost-effective, accountable, and responsive to consumers who are "transportation disadvantaged." UWR promotes education and outreach to transportation providers and consumers; consolidation of programs; reduction of restrictive and duplicative laws, regulations, and programs; and coordinated planning.

The UWR program is cataloging useful practices and providing technical assistance and training to the states as well as opportunities for states to submit proposals for grants to develop and implement comprehensive state action plans for coordinating human service transportation.

Strategy Six: Utilization of Waiver Authority to Promote State Options to Advance Consumer Choice and Community Participation

The primary objective of the livable community concept is to provide people with disabilities with choice and support to live independently in the community. The examples in Strategy Six illustrate long-term services and support policies that support this objective.

Medicaid and Social Security

Medicaid and Social Security offer two important sources of funding for support of individuals with disabilities. Medicaid offers states the opportunity to receive federal financial assistance to share in the cost of a wide range of community services. Individual states have some flexibility in the determination of eligibility and the scope of services covered. Similarly, the Social Security Administration has waiver authority it can grant to states on a case-by-case basis to modify existing policies and procedures and encourage testing alternative policies and procedures that promote independence and self-sufficiency for individuals with disabilities and their families.

On May 9, 2002, Secretary Tommy Thompson, who was Secretary of the Department of Health and Human Services (HHS) at the time, unveiled the Independence Plus initiative in response to Executive Order 13217, in which HHS promised to provide states with simplified model waiver and demonstration application templates that would promote person-centered planning and self-directed service options.⁷⁹

States currently operate over 250 distinct waiver programs.⁸⁰ In waiver programs states have the ability to design programs that meet the unique needs of individuals with disabilities. The waiver program is the fastest growing segment of Medicaid, with expenditures and number of persons covered increasing annually by more than 10 percent (U.S. GAO 2003a).

References

- Cooper, E., & O'Hara, A. (2005). Opening doors: Using the low income tax credit program to create affordable housing for people with disabilities. Available at http://www.c-c-d.org/od-April05.htm
- Cornell RRTC. (2005). 2005 Disability status reports. Ithaca, NY: Cornell University. Rehabilitation Research and Training Center on Disability Demographics and Statistics. Available at http://www.ilr.cornell.edu/ped/disabilitystatistics
- Edwards, K., & Mason, L. M. (2003). Policy report: State policy trends for Individual Development Accounts in the United States: 1993–2003. St. Louis, MO: Washington University George Warren Brown School of Social Work.
- Leydorf, D., & Kaplan, D. (2001). Use of Individual Development Accounts by people with disabilities: Barriers and solutions. Oakland, CA: World Institute on Disability.
- Morris, M., & Silverstein, B. (n.d.). Review of state plans for the Workforce Investment Act from a disability policy framework: Executive summary. University of Iowa, Law, Health Policy & Disability Center. Available at http://disability.law.uiowa.edu/lhpdc/rrtc/documents/morris/ WIA_Executive_Summary.doc
- National Council on Disability (NCD). (2004). *Livable communities for adults with disabilities*. Washington, DC: National Council on Disability.
- ----. (2006). Creating livable communities. Washington, DC: National Council on Disability.
- N.O.D./Harris. (2000). 2000 survey of Americans with disabilities. National Organization on Disability/Louis Harris and Associates.
- President's Council for People with Intellectual Disabilities (PCPID). (2004). A charge we have to keep: A road map to personal and economic freedom for persons with intellectual disabilities in the 21st century. President's Committee for People with Intellectual Disabilities. Available at http://www.acf.hhs.gov/programs/pcpid/2004_rpt_pres/2004_report.html
- RESNA. (2006). Alternative financing technical assistance project. Available at http://www.resna. org/AFTAP/success/index.html#acce
- U.S. GAO. (2003, June). Long term care, federal oversight of growing Medicaid home and community based waivers should be strengthened. Washington, DC: Government Accountability Office.

Long-Term Services and Supports Employment Issue Brief #12 National Council on Disability

Abstract

Long-term services and supports are important factors in the employment of many people with disabilities. These services and supports include assistive technologies and personal-attendant services in the workplace that can make work possible or more productive, as well as home health care and other services and supports outside of the workplace that can affect the employ-ability of people with disabilities. In addition, the projected growth in home health aides offers employment opportunities for people with disabilities. This brief reviews the current system of long-term services and supports, which is primarily funded by state and Federal Government programs. The system is facing a number of problems and pressures, requiring greater coordination and oversight among the agencies and programs. Several potential reforms are presented.

Introduction

Accessible home office: "Rick turned to the Kansas Assistive Technology Cooperative (KATCO) for a low-cost loan to convert part of his garage into an accessible home office where he could write computer code for aeronautics manufacturing plants. Rick had lost the use of his legs after being severely injured in a car accident 7 years ago. In addition to his need for a home office, Rick also wanted to purchase a \$4,000 device that would allow him to stand independently as he worked in order to strengthen his weakening bones. United Cerebral Palsy promised to pay one-half his cost if Rick could fund the other half. Through KATCO Rick received the low-interest loan that he needed. 'KATCO was the only resource I found that could help me,' Rick said. 'If it weren't for them, I couldn't do what I've done with my rehab.'"⁸¹

Starting a business: "James grew up in a family of upholsterers. He knew the trade and performed the work with great attention to detail. Medications he took for auditory hallucinations caused by schizophrenia, however, interfered with his concentration and job retention. He needed numerous breaks throughout the day and the flexibility to work long hours in the evening. James started his own upholstery shop using funding through a U.S. Dept. of Labor

Disability project, equipment purchased by the local VR office, and ongoing rehabilitation support from the community mental health center."⁸²

Employment specialist: "A middle-aged man . . . sustained a C-6 to C-7 SCI as a result of an automobile accident at the age of 19. . . . [H]e was referred to the State Department of Vocational Services for supported employment services. . . . The employment specialist assisted him with returning to work, training for his new job, operating equipment, and . . . arranging his necessary medical leave. . . . The employment specialist played a key role in securing adaptive equipment in a timely manner once the individual became employed and afterwards providing [help] to the employee on the use of the accommodations. . . . The employment specialist can assist individuals to identify their current abilities [and] needed accommodations, as well as assist the individual with all pre-employment activities. They also help in the development of individualized supports at work. The employment specialist provides ongoing long-term support."⁸³

Workplace personal-attendant services: "[Medtronic] established the first supported employment placement for eight individuals with development disabilities in electronic assembly. Two decades later the program has been mainstreamed in the company in four areas: manufacturing production activities, mailroom, packaging, and shipping. . . . What began as temporary employment for individuals is now truly 'individualized employment' for those with disabilities, which is steadily being replicated throughout the company. As Brian Webster, Vice President of Medtronic, Physio-Control Commercial Business, has noted, 'We no longer think of it as a supported employment program here at Medtronic, Physio-Control. These team members in Supported Employment are woven into the fabric of Medtronic, Physio-Control's culture. In many ways, they are more core to the culture than average team members.""

Long-term services and supports (LTSS) include a variety of nonmedical services and supports for people with disabilities, such as personal assistance, assistive technology, financial management, housing, transportation, and nutrition. As the above stories make clear, how people are assisted in compensating for difficulty they face in activities of daily living can make a large difference in their earnings potential and economic independence. LTSS relate to employment of people with disabilities in three basic ways:

• Workplace LTSS include a variety of assistive technologies and personal-assistance services that make work possible or more productive for many people with disabilities.

- Home-based LTSS can make an important difference in employability. People with disabilities who do not receive needed services and supports are at greater risk for a number of physical problems, limiting their capacity for productive employment (LaPlante et al. 2004). The funding of LTSS, however, may constrain employment if people face the risk of losing LTSS as their earned income increases.
- The general growth of LTSS may increase employment opportunities for people with disabilities. The fastest-growing occupation, fueled by the aging of the population, is home health aide, which is projected to grow by 56 percent, or 350,000 workers, between 2004 and 2014 (Hecker 2005). A closely related occupation, personal and home care aide, is projected to grow by 41 percent, or 287,000 workers, over this period. People with disabilities not only are clients of such aides but are disproportionately likely to be aides themselves: whereas only 7 percent of all workers have disabilities, close to one-sixth (16%) of health aides, and one-tenth (10%) of home care aides in 2005, have disabilities.⁸⁴

Workplace LTSS are specifically discussed in the "Reasonable Accommodations" issue brief. The following review summarizes the overall structure, funding, and issues of the LTSS system in general. It is based on the National Council on Disability report titled *The State of 21st Century Long-Term Services and Supports: Financing and Systems Reform for Americans with Disabilities*.

Current Structure and Funding of LTSS

The current LTSS system is funded primarily by state and federal programs. Medicaid is the primary payer of LTSS in this country and paid for 45 percent of the \$137 billion spent on LTSS in fiscal year 2000. Yet, individuals and their families still pay out of pocket for nearly one-third of LTSS expenses.

The fact that so much of the cost of LTSS is supported by government funding mechanisms, such as Medicaid, dictates the way people are able to avail themselves of LTSS. The complex nature of receiving Medicaid reimbursements for covered expenses is most easily handled by large-scale organizations such as institutions. Although the population of people who have disabilities and people who are elderly has indicated a preference for receiving LTSS in home- and community-based settings, a federal institutional bias exists. Presently, about 1.6 million people live in nursing homes, group homes, and other institutional facilities—and 2.0 to 2.4 million more people are on waiting lists or in need of some type of LTSS.

Despite the bias for institutional service provision, options for LTSS are emerging. Aging and disability advocates are working with the health care industry to create a continuum of care, including such services as assisted living. Governors have creatively used the Medicaid waiver process to increase home- and community-based services for people who are elderly and people with disabilities. Despite this movement, more than 50 percent of Medicaid resources for LTSS continue to support individuals in nursing facilities or intermediate care facilities for the mentally retarded. Thus, it is clear that the institutional bias is still strong and broader support is necessary for affordable LTSS provision. The United States is a world leader in extending life and eradicating disease, but it has failed to develop an LTSS public policy that truly integrates disability as a natural part of the human experience.

Many people do not realize that there is no LTSS public policy for individuals of moderate to middle income, whether over or under the age of 65. Although private insurance is available for long-term care, it is often capped at a specific dollar amount, provides coverage for only about three years, and is primarily geared toward services and supports that cater to diseases of aging instead of also including the needs of everyday working Americans with disabilities. In addition, few insurance products are available that cover the costs of providing services and supports targeted to individuals under age 65 challenged with lifelong disabilities and their families. A recent actuarial study found that Americans at age 45 are more likely to become disabled than to die, and yet Americans continue to insure against loss of life rather than against the risk of disability.

Not everyone has access to insurance; about one-fifth of the U.S. population is uninsured or underinsured. This has an economic cost between \$65 billion and \$139 billion annually from premature death, preventable disability, early retirement, and reduced economic output. Rising double-digit inflation costs for health care continue to confound state and federal efforts to rein in overall health and LTSS spending.

The actual numbers of people needing services, as well as the dollars spent on those people, puts the matter into perspective. For example, in 2001, the United States spent \$1.24 trillion (or about \$5,500 per person) on personal health care services, with 12 percent (or \$151.2 billion) spent on LTSS (O'Shaughnessy 2003, 3). Although 70 percent of the 53 million Medicaid beneficiaries are children and mothers, nearly one-third of the \$276.1 billion spent in 2003 was for populations who are aging (15%) and with disabilities (15%). The predominant disability populations receiving Medicaid LTSS are those with mental retardation and developmental disabilities (MR/DDs) and low-income seniors. Between 9 million and 12 million Americans need help with activities of daily living (ADLs) and instrumental activities of daily living (IADLs), and 3.5 million of these people

are under 65 years of age. The literature also reports that 25 million individuals with chronic severe disabilities under age 65 are probably in need of some LTSS, but these individuals are often not counted or are found ineligible because of income or family assets, or because they fall outside the realm of traditional functional assessments that use ADLs and IADLs as measurements.

Problems Facing the LTSS System

There is little public or political interest in putting LTSS onto the national agenda, although state Medicaid spending represents 22 percent of overall state budgets and is fast becoming unsustainable. Many people do not understand that Medicaid is the primary provider of LTSS for all populations—both young and old—and that eligibility is income sensitive. Therefore, a strong disincentive for employment is built into the current system of LTSS provided through Medicaid. The development of affordable LTSS is the missing link in making work a reality for many Americans with disabilities, because the expense often means that people requiring LTSS have to make a choice between working and losing Medicaid (but still not being able to afford LTSS on their own), or staying home and ensuring LTSS access to the degree that Medicaid will cover it.

Although the expenses of LTSS are covered by Medicaid, no single federal program or federal agency is charged with the responsibility for management, funding, and oversight of LTSS at home and in the community. More than 20 federal agencies and almost 200 programs provide a wide range of assistance and services to people with disabilities.⁸⁵ There is no single entry point at a community level for individuals to learn about and access service and support options. There is no comprehensive, integrated delivery system that provides portability across states.

The current system of LTSS is designed for low-income individuals and is unsustainable under the current system of health care that has expanded Medicaid options to provide services to an array of middle-income and uninsured individuals. There are 57 million working-age Americans between 18 and 64 with chronic conditions such as diabetes, asthma, or depression, and more than one in five (12.3 million) live in families that have problems paying medical bills. Many are not eligible for LTSS services because they have assets above prescribed limits. The number of chronically ill people with private insurance who spend more than 5 percent of their income on out-of-pocket health care costs increased by 50 percent, to 2.2 million people, in 2003. The impact on LTSS costs is unclear for 6.6 million individuals with chronic care needs who are uninsured and go without needed care (42%), delay care (65%), or fail to get needed prescriptions (71%), but these individuals will impact future needs and costs without timely intervention. Eligibility and service pathways to state Medicaid programs have expanded to meet the growing needs of 53 million low-income, middle-income, and uninsured acute care and LTSS beneficiaries, and reflect the growing challenges of economic downturns, increased health premiums, increased longevity, a low savings rate, and slower wage growth. Twelve percent of the \$329 billion in combined state and federal funds in 2005 was spent on LTSS.⁸⁶ Seven million individuals are dually eligible for full Medicare and Medicaid benefits and another 1 million receive assistance with copays and deductibles; combined, these 8 million individuals account for 42 percent of all Medicaid expenditures.

Two-thirds of Medicaid spending is for population groups and services technically defined as optional, and 90 percent of all long-term care Medicaid services are optional. Seventy-five percent of home- and community-based services (HCBS) waivers are for people with MR/DD and are used to purchase LTSS. The other 25 percent is used for people with physical disabilities and older people. Three small waiver programs serve individuals with a primary diagnosis of mental illness, accounting for 0.2 percent of HCBS waiver expenditures.

Private LTSS insurance is targeted to individuals age 65 and older and often to specific disease categories. One insurance company reported that more than 50 percent of its LTSS insurance claims paid are for Alzheimers and other forms of dementia.

The public overestimates the help that is available from public disability insurance programs. Workers' compensation benefits cover only disabilities caused by injury or illness arising on the job—only an estimated 4 percent of disabilities.

A total of 44.4 million American caregivers age 18 and over provide unpaid care to an adult age 18 or older. Six of 10 of these caregivers work paid jobs while providing care; most are women age 50 years or older. Jobs as nurses' aides are expected to grow by 23.8 percent, while the employment of personal-care and home health aides may grow as much as 58.1 percent between 1998 and 2008. Direct care workers (3.1 million) are in short supply and have nearly a 100 percent turnover rate in nursing facilities; home care agencies have annual turnover rates between 40 and 60 percent. Direct care workers have low median hourly wages of \$9.20 an hour and one-fifth (far above the national average of 12% to 13%) earn incomes below the poverty level; 30 to 35 percent of all nursing home and home health aides who are single parents receive food stamps.

LTSS are not portable and cannot be moved with an individual from state to state, and current LTSS costs are not a customized response to individual needs. Current costs reflect matching an individual's circumstances to available services and supports, based on federal eligibility criteria, with degrees of consumer choice and direction that vary based on the state in which the individual lives. The fiscal health of each state (and its ability to provide the necessary match to draw upon federal Medicaid resources) determines the scope and array of the current LTSS system for low-income Americans with disabilities and seniors.

States are experimenting with merging nursing home and HCBS dollars to better allocate funds according to the needs of people with disabilities and developing single-point-of-entry systems at the local level to encourage easier access to LTSS. Expanded use of Medicaid waivers is common to broaden benefits and LTSS to subpopulations. There is growing recognition that a fundamental shift in values is occurring as states move LTSS to the community and home and out of the institutions. More than \$200 million has been awarded by the Centers for Medicare and Medicaid Services (CMS) to states on a competitive basis to promote system changes. Despite these efforts, litigation continues to expand in *Olmstead* class action suits. *Olmstead* provided that Title II of the ADA required states to administer their services, programs, and activities "in the most integrated setting appropriate to the needs of qualified individuals with disabilities."⁸⁷ The Office for Civil Rights at the Department of Health and Human Services and the Justice Department have the responsibility to monitor and oversee *Olmstead* state plan implementation.

Potential Reforms

Recommendations for Incremental Reform

It is necessary to remove the institutional bias in the Medicaid program to give Medicaid beneficiaries greater choice in how financial assistance is provided to cover a range of LTSS. Two complementary options deserve immediate attention from Congress and bipartisan support. The first option is to shift the HCBS program from its current waiver status to a state plan requirement. Eligibility would be delinked from nursing home eligibility and states would receive an increased federal match under their state cost-sharing agreement for services provided in this category as part of their Medicaid reimbursement for authorized expenditures. CMS would set guidelines for a functional assessment process and minimum threshold of services to be covered, including personal-assistance services. The second complementary option would be that federal funding follows the person from a nursing home to a community setting as part of a person-centered plan and self-directed budget. The Money Follows the Person option would continue for a three-year period to help support successful community transition. Both options are currently part of legislative proposals before Congress.

Despite state variability in criteria for Medicaid eligibility and scope of benefits, in all states, individuals with disabilities are dependent on informal caregivers, the estimated benefit of which exceeds \$200 billion annually. Services should be designed to support, not supplant, the role of the family and actions of informal caregivers.

As part of the *Olmstead* guidance, CMS should issue an advisory letter to state Medicaid directors directing corrective action to achieve parity of compensation across the environments where direct support workers are located. Funding should be authorized for collaboration between community colleges and disability-related organizations to develop a high-quality set of competencies to be taught in a new support worker certificate program.

NCD researchers documented the fragmentation of multiple systems with different rules of eligibility and lack of information on access to and availability of resources. Although Program Assessment Rating Tool (PART) reviews by the Office of Management and Budget are incorporating common performance measures across agencies and programs, *there is no focus on cross-department and agency collaboration*. The nature of LTSS requires that more than 200 programs and 20 agencies improve their coordination of resources at the community level. NCD has the following recommendations:

- Hold congressional hearings to evaluate possible options for improvement of department collaboration to provide access to information and supports and services to meet the long-term needs of people with disabilities under and over age 65.
- Require the Department of Housing and Urban Development (HUD) and the Department of Health and Human Services (HHS) to document current efforts and future plans to improve and expand the availability of affordable, accessible housing that is coordinated with services/supports, when needed. Establish an Interagency Council on Meeting the Housing and Service Needs of Seniors and Persons with Disabilities.⁸⁸
- Add to the PART performance criteria indicators that will evaluate documented outcomes from intra-agency and cross-agency collaboration to meet LTSS needs of people with disabilities. Consider possible financial incentives for agencies that document valued outcomes

from LTSS system collaboration. Report annually to Congress on individual agency performance in this area.

• Issue a new Executive Order charging CMS to chair a time-limited workgroup (six months) on LTSS that includes representation by HUD, HHS, the Social Security Administration (SSA), and the Departments of Education, Labor, Justice, Transportation, Treasury, and Agriculture to identify policy barriers and facilitators to an improved comprehensive, coordinated system of LTSS for people with disabilities that maximizes interagency collaboration, promotes consumer direction, and increases consumer choice. CMS and the Congressional Budget Office (CBO) should study states that are having success with global budgeting.

The assistant secretary for planning and evaluation at HHS, CMS, and a private insurer should conduct a feasibility study of possible new insurance products with supplementary Medicaid coverage for people with disabilities under age 65 to project market demand and needed incentives to share risk among stakeholders. Consumer self-direction requires information, education, and training to build the critical skills needed to make informed decisions. The system should continue to provide competitive grants that establish Aging and Disability Resource Centers in all 50 states that provide one-stop access to information advice on long-term support options.

The system should establish, with funding from CMS, a National Resource Center on Consumer Self-Direction that identifies and disseminates best practice information on person-centered plan development, self-directed management of individual budgets, and examples of multiple funders combining funds within an individual budget to achieve common negotiated performance objectives. The system should require states, as part of their HCBS waiver implementation, to provide education and training to eligible Medicaid beneficiaries on effective and meaningful participation in person-centered planning, management of individual budgets, and negotiation with services and supports providers. The system should establish a cross-agency workgroup that involves CMS, the Administration on Aging, SSA, the Administration on Developmental Disabilities, HUD, the Office of Special Education and Rehabilitative Services at the Department of Education, and the Department of Labor to accelerate options for states to bundle and/or braid public funds within a self-directed individual budget with streamlined and accelerated eligibility procedures.

Recommendations for Clean Slate Reform

AmeriWell is a prefunded, mandatory, LTSS model that would provide all Americans of any age with coverage from birth based on criteria of risk and functioning, and not category of disability.

AmeriWell would delink LTSS from Medicaid and Medicare, creating its own governing agency, regulations, oversight, and congressional committee. The contributions of individuals and families, the private sector, and the Federal Government would fund AmeriWell. A "penny pool" established through private stock transactions would supplement LTSS costs for impoverished and vulnerable Americans previously served under Medicaid and Medicare.

Conclusion

The lack of data that would present a complete and accurate picture of the costs for LTSS for families with children or adults with disabilities was a key finding by NCD researchers. Despite multiple studies by the CBO and other federally sponsored research centers on the costs of long-term care for seniors, the population under age 65 with disabilities has not been a priority.

It is unclear how Americans with lifelong disabilities under age 65 can become self-sufficient and economically independent through work without substantial LTSS reform that allows asset growth and more innovative public-private support for LTSS. The advisory group encouraged moving any LTSS policy discussion away from the current medical status and disability type to a standardized assessment process related to ADLs and IADLs. There is a need to reevaluate financial eligibility criteria and develop an expanded benefits menu that organizes service options from a presumption of individual preference for remaining at home in community settings. Nursing home level of care should be shifted from an entitlement status to an option of last resort. The system should provide incentives to support and encourage family caregiving, and consider tax incentives to help defray expenses of dependent care for LTSS.

References

- Kitchener, M., Ng, T., & Kaye, S. (2006, December). Publicly-funded personal care assistance in Florida: Current provision and future demands. San Francisco: Center for Personal Assistance Services, University of California.
- LaPlante, M., Kaye, S., Kang, T., & Harrington, C. (2004). Unmet need for personal assistance services: Estimating the shortfall in hours of help and adverse consequences. *Journal of Gerontology: Social Science* 59b (2): S98–S108.
- National Council on Disability (NCD). (2005, December). *The state of 21st century long-term services and supports: Financing and systems reform for Americans with disabilities.* Washington, DC: National Council on Disability.

- O'Shaughnessy, C. (2003). Long-term care chart book: Persons served, payers and spending (RS21518). Washington, DC: Congressional Research Service, Library of Congress.
- Turner, E., Revell, G., & Brooke, V. (2001). *Personal assistance in the workplace: A customer-directed guide*. http://www.worksupport.com/resources/viewContent.cfm/129
- U.S. GAO. (2005). Federal disability assistance: Wide array of programs needs to be examined in light of 21st century challenges, GAO-05-626. Washington, DC: Government Accountability Office.

Appendix D: Public Forum Summaries Jacksonville, Florida, September 14, 2006

The Employment Study Stakeholder Forum was held in the city of Jacksonville, Florida, on September 14. Venessa Fairbairn, Disability Program Navigator (DPN),⁸⁹ assisted representatives from the National Disability Institute (NDI) and the Law, Health Policy & Disability Center (LHPDC) of the University of Iowa College of Law, with the logistics including identifying key stakeholders within the Jacksonville community. Instead of holding one forum that would include all of the key stakeholders, this community elected to hold two separate forums: Community Partners (including representatives from the disability community and individuals with disabilities) and Business Community Partners. During each forum, stakeholders were provided with a brief introduction to NCD and the purpose of the Employment Study, along with a list of the proposed forum questions. The facilitator for the forum was Michael Morris, the director of NDI and associate director of LHPDC. Mr. Morris began each forum by sharing with the stakeholders and opportunities related to employment for individuals with disabilities. He began by using the proposed questions but in each group discussion allowed the participants to drive the dialogue and selection of questions.

Although the forum took place in Jacksonville, Ms. Fairbairn, as the local Disability Program Navigator for the Jacksonville area, covers eight counties; therefore, the list of invited stakeholders included not only representatives from Jacksonville but also, where appropriate, representatives from the eight county catchment area. The Community Partners included representatives from local agencies and organizations such as Deaf and Hard of Hearing Legal Advocacy Program; local Arcs; Independent Living Resource Center; Vocational Rehabilitation; Advocacy Center for Persons with Disabilities; Agency for Persons with Disabilities; State Assistive Technology Project; Hope Haven Children's Clinic and Family Center; Job Opportunities Consortium; and Jax Connect; Services for Students with Disabilities, Florida Community College of Jacksonville, along with several individuals with disabilities and parents of children who have disabilities. The Business Community Partners included representatives from Anheuser Busch, Mayor's Disability Council, Sorensen Communications, Blue Cross/Blue Shield, One-Stop Career Center Business Services, *Business Journal*, Independent Living Council, SunTrust Bank, Legal Services, Independent Living Resource Center, and the IRS, as well as self-employed business representatives.

Highlights from the Jacksonville, Florida, Community Partners' Stakeholder Forum

Question: What key factors/elements bring public and private sector resources together to advance employment and economic opportunity for people with disabilities?

The discussion with the community partner stakeholders began with participants looking at what factors bring public and private sector resources together, or what resources can come together, in a community to advance employment and economic opportunity for people with disabilities. A representative associated with Hope Haven and the Job Opportunities Consortium (a network of agencies that share ideas and job leads), who is a program manager for placement services and who has been in the field for about 30 years, feels that one of the significant factors that she sees bringing the public and private sectors together to work toward employment outcomes for individuals with disabilities is the creation of a local Business Leadership Network (BLN).⁹⁰ The BLN kickoff in Jacksonville was held less than a month before the Stakeholders Forum. The BLN is a nationwide concept with the basic understanding that if a community wants to begin looking at including individuals with disabilities in the workforce, there needs to be a dialogue with the business community that engages active involvement of employers. The BLN creates a framework for these types of discussions and has had tremendous results in communities across the country.

The director of programming services with the Independent Living Resource Center, who also runs the Social Security Administration's Benefits Planning, Assistance and Outreach Program (BPAO),⁹¹ feels that the creation of the BPAO program and the funding of benefits specialists in every state have made a significant impact. Benefits specialists work with Social Security (SS) disability beneficiaries (Supplemental Security Income [SSI] and Social Security Disability Insurance) to better enable them to make informed choices about work. Many SS beneficiaries with disabilities are interested in returning to work; however, some choose not to do so because of the fear of losing their benefits. The BPAO program nationwide is intertwined with several community partners including the U.S. Department of Labor's (DOL) One-Stop Career Centers⁹² and the DOL-Social Security Administration (SSA) jointly sponsored DPN initiative.

The area director for Vocational Rehabilitation (VR) feels that the inclusion of employment liaisons, that is, counselors who go into the community and help educate employers about job

seekers with disabilities as a qualified pool of job applicants, is another factor that is working in the public and private sectors.

Question: What are the innovative programs that are having an impact on advancing employment and economic opportunity for people with disabilities in the Jacksonville area?

VR is in the testing stages of a Web site created for employers, which provides a portal where employers can view profiles of potential job candidates. The Web portal includes information on a candidate's skills and abilities, allowing employers to determine whether a potential candidate meets the needs of a position. Along with the Web site portal, the employer works directly with a VR counselor to help in the selection process. Within the past year, VR instituted a new policy on self-employment that identifies it as a viable employment option. VR counselors are currently being educated on this employment opportunity that will allow individuals with disabilities to take part in a self-owned business.

Question: What strategies are taking place in the Jacksonville area to overcome the fragmentation and lack of coordination between the multiple public and private systems?

Florida is part of a statewide demonstration called the Florida Freedom Initiative (FFI),⁹³ which is being conducted by the Agency for Persons with Disabilities. FFI focuses on Medicaid beneficiaries with developmental disabilities who use long-term care supports and services. Its goals are to improve the delivery of those supports and services and to promote self-sufficiency. In conjunction with the FFI, SSA is conducting a demonstration that consists of waiving certain SSI program rules for FFI participants. The purpose of the Social Security demonstration, called Work Incentives for Participants in the Florida Freedom Initiative,⁹⁴ is to enable SSI beneficiaries to take part in the FFI and to test whether the waivers promote work and asset building. Jackson-ville is in the process of forming a coalition consisting of multiple community partners to coincide with these demonstrations. The need for ongoing health care is viewed as one of the most significant barriers for SS disability beneficiaries in terms of why they elect not to go back to work. The hope is once this coalition comes together and forms a network, the group of partners will continue to meet on a regular basis to address areas of need within the disability community.

The Real\$ense Prosperity Campaign⁹⁵ is another initiative in Northeast Florida that consists of a community coalition of companies, agencies, government, educational, nonprofit, and other

organizations that is focused on increasing the prosperity of the community by increasing the prosperity of each of its citizens. The campaign provides a number of services including free tax preparation for people who are working and in the lower-income range. The campaign also provides free financial education to improve financial literacy through training on finances and asset accumulation. In addition, participants who qualify will be able to open an Individual Development Account (IDA)⁹⁶ to take advantage of matching grant dollars to help them reach their goals. The campaign is working with the Independent Living Resource Center to train staff to be trainers (train the trainer) on financial literacy. Staff from the Independent Living Resource Center and other volunteers who understand the culture and are sensitive to the needs of individuals with disabilities will then offer the financial literacy classes to individuals with disabilities. The SSA benefits specialists, who are housed at the Independent Living Resource Center, will be a part of this campaign and will help individuals with disabilities understand the different savings plans. The campaign is also working with the Disability Program Navigator to establish tax sites at the local One-Stop Career Centers to reach and meet the needs of individuals with disabilities. In order to participate in the Real\$ense Campaign, an individual with a disability has to be working, so being employed is an incentive for people with disabilities and for those who work on their behalf. The Jacksonville area sees this campaign as a continued collaborative effort to include more possibilities for people with disabilities. It also is providing a forum for people with disabilities, family members, and support providers to learn how to obtain IDAs and learn more about income tax credits and financial information. The campaign was an offshoot of the Florida Asset Development Summit that was held on behalf of the Florida Developmental Disabilities Council and the National Disability Institute on March 2–3, 2006, in Orlando. The purpose of the summit was to bring together, for the first time, disability community representatives, financial service and asset-building leaders, state government officials, and business executives to identify and recommend strategies that economically empower individuals with developmental disabilities and their families.

Question: In the Jacksonville area, what types of supports and services are youth with disabilities, especially those of transition age, receiving to connect them to meaningful employment opportunities?

A representative from Services for Students with Disabilities at the Florida Community College in Jacksonville shared that they have a contract with VR to teach job skills and provide job placement services to students in the public education system. The program has been quite successful. Before students graduate, VR counselors work with the school system to identify youth, provide them with skills training, and place them in a job within their field. The Disability Program Navigator talked about the impact of the High School/High Tech (HS/HT)⁹⁷ program, which works with high school students who have disabilities, exposing them to careers in the high-tech industry through field trips and mentoring opportunities with a wide range of businesses. During the recent Jacksonville Business Leadership Network kickoff, the students associated with the HS/HT program served as the ambassadors and the 500 business representatives who were in attendance had the opportunity to learn about the students and the program; this may lead to summer internships for students in the program. The representative from the Child Guidance Center shared that the center has worked collaboratively with the area school boards for many years and feels that the boards are embracing opportunities for youth on many levels. In addition to the HS/HT program, initiatives for youth include providing more job training and career exploration opportunities. Job coaches, now part of the regular school system in some counties, conduct job training and job shadowing.

Question: What are the major challenges that prevent more people with disabilities from working? What challenge(s) does the system need to overcome?

- Education about and awareness of the abilities and potential of job seekers with disabilities and the supports and services that are available to provide meaningful employment opportunities.
 - Available Supports and Services. Individuals (youth and adults with disabilities) and families are not aware of all of the supports and services that are available to assist them at the community, state, and national level. This statement is applicable to all age groups, because the same supports and services that are available to individuals with disabilities in the public school system do not always carry over to postsecondary education or employment. A representative shared the example of a young man who had been placed in a job through a transition program in high school. The school covered the costs of the personal-care attendant that the young man needed; however, after he graduated from high school, this support was no longer covered and the employer was unable to incur the costs. The young man needed a personal-care attendant in order to maintain his employment. Like assistive technology and transportation, personal-assistance services are part of what needs to be considered when providing meaningful employment opportunities, i.e., the supports that make it possible for an individual to find and maintain employment.

- *Full Inclusion of All Students with Disabilities.* The school system needs to be educated on the potential of all individuals with disabilities, including individuals with significant disabilities. Supports and programs need to be in place to afford all students opportunities to explore their potential.
- Certification of Attendance. Many individuals with disabilities receive a certificate (certification of completion or attendance) upon graduation from high school, versus receiving a diploma. Many businesses will not hire someone who does not have a high school diploma.
- Individuals with Disabilities as a Viable Workforce. The public and business community need to be educated on the abilities and benefits of including people with disabilities in the workforce.
- Success Stories. There are many success stories about individuals with disabilities who have been placed into meaningful employment opportunities and the placement has worked well for both the individual and the employer. These stories need to be communicated to employers through a major marketing campaign that highlights the real successes as a focus to bring in other businesses. BLNs do this type of outreach on a micro level.
- Accessible and flexible transportation. Transportation is often cited as one of the most significant barriers to employment for individuals with disabilities. There is a need at the community level for accessible and flexible transportation services that can transport individuals from their place of residence to their place of employment. This is especially true in rural and residential areas where the place of employment is not located near the place of residence and often the transportation services available in one area are not connected to and available in the other.
- Access to and training on computer technology and assistive technology.
 - Computer Skills and Training. Computer skills are invaluable across a wide range of sectors and most jobs today require some level of computer usage and knowledge; however, many individuals with disabilities have not been afforded the opportunity to gain these skills. It was suggested that along with Social Security benefits, SSA should provide each beneficiary with a computer and a voucher to receive computer training. Technology companies and community colleges could then receive incentives to provide the training.
 - ♦ Assistive Technology. Assistive technology is available to enhance employment opportunities through reasonable accommodation and can often be the deciding factor for an

employer considering an applicant with a disability. Many businesses, service providers, and individuals with disabilities, however, are not aware of its existence, how to obtain it, and, more important, how to use it.

- Job application process. Kiosks and electronic applications for employment can be a challenge for a wide range of individuals with disabilities, especially when there is no alternative process. The local Home Depot, also a member of the Jacksonville BLN, uses electronic applications but has been very open to providing alternative ways for job applicants to go through the application process.
- Fragmentation and lack of coordination across multiple systems. A multitude of programs touch the life of an individual with a disability; each has its own set of funding, goals, admissions and standards, and rules and policies, which only further add to the disability maze. These multiple programs often have similar missions, that is, to help individuals become employed; however, how the process unfolds is dictated by the funding source and the mandates that are tied to it.
- Social Security benefits. Individuals with disabilities seek benefits because they have a condition that prevents them from being able to work. It is an arduous process to obtain benefits, and the possibility of losing them and having to go through the process again if the employment opportunity does not work out is seen as not worth the risk.
- **Coordinated community approach.** Businesses and service provider agencies operate differently. Agencies know how to work with individuals with disabilities but may have no clue how to approach businesses so that they will be open and responsive to hiring individuals with disabilities. Businesses are constantly expressing frustration with the lack of coordination in the community to connect them to qualified candidates, and this approach has served as one of the reasons employers are not considering potential candidates with disabilities for their positions.
- Other barriers identified include funds that are still being targeted toward segregated, not community-based, programs, and individuals with disabilities who are aging out of foster care who have no family/parents to advocate for them.

Question: Suggest policy changes that will increase the receptiveness of employers and ultimately the level of participation of individuals with disabilities in diverse workforces, different kinds of jobs, different kinds of companies.

- **Health care** remains a large issue and barrier for employers to hire individuals with disabilities because of the liability of health-related issues; this is especially true for smaller companies. Florida does not currently have a Medicaid Buy-In program; however, such a program might solve some of the health care issues faced by individuals with disabilities and employment.
- Lack of suitable transportation prevents many individuals with disabilities from getting to and from a work site. Employers could participate in programs that include covering some or all of the transportation costs. Communities could allow the use of alternative type vehicles, such as golf carts, on local roads. Allow counties to control the local transportation system and provide additional monies based on a formula based on the demographics of the county.
- Increased and mandated funding for programs that are having an impact on more effective and meaningful employment opportunities for individuals with disabilities such as the Social Security Benefit Specialists and Disability Program Navigators.
- **Provide an incentive, a financial reward, for agencies** that are impacting employment opportunities for individuals with disabilities—that is, for individuals who have been helped—for interagency coordination and collaboration. Devise a system in which agencies report how they worked together in a complementary way with other agencies. What were the collaborative activities and how did those activities benefit individuals with disabilities?

Question: If you had the power to change and respond to the challenges that have been identified, what policy recommendations do you have for NCD that would advance employment outcomes for Americans with disabilities?

- Universal health care policy. A single national health care policy. Currently, there is a myriad of health care policies—Medicaid, Medicare, Medicaid waivers, state policies, etc.—with personnel and dollars going into these different programs to determine if someone is eligible. A single national health care policy would be more cost effective.
- **Incorporate disability into education curriculum.** History and civics classes at the middle and high school level should include as part of the general curriculum information about individuals with disabilities as being part of the civil rights movement.
- Offer basic financial education. Basic financial education and literacy skills need to be part of the school curriculum as early as the elementary level. For example, in Florida they

are using a program called Florida Jump\$tart.⁹⁸ This program, which should be available for all children, works with the school systems and Department of Education and focuses on basics such as learning about budgets and credits.

- **Portal for supports and services.** The current system for identifying and obtaining supports and services to assist an individual with a disability is very complicated and fragmented; it is difficult to gain access to simple and consistent information. Create one focal location (single point of contact) that includes information about all of the service providers and organizations that are available to assist an individual with a disability. In this coordinated system, anyone would be able to access this central location to identify—based on the needs of the individual—what provider(s) they need to connect with. Another possibility is to coordinate and consolidate several of the funding streams so that there are not so many separate providers on both the public and private side.
- Social Security Administration. Changes to programs and policies include the following:
 - The beneficiary receives information about benefits and work incentives from an SSA benefits specialist; however, actually being able to use the work incentives with SSA is sometimes a barrier and beneficiaries need to receive guidance on how to use and access work incentives on a continual basis. Benefits specialists do not make decisions for the individual but rather inform them of their choices, so an enhancement to this program would be a better, and direct, relationship between the SS disability beneficiary and SSA.
 - Provide a work incentive—an allotment of money—to SS disability beneficiaries who are transitioning into employment to help them through this transition period. Revamp the system so that SS benefits become a stepping stone to get back to employment. Incorporate new rules that focus on true incentives so that individuals with disabilities want to work, hold onto assets and save resources, and obtain health care versus simply being dependent on public benefits.
 - Instead of having to access an employment network (EN) through VR or other employment network agencies, allow SS beneficiaries to become their own employment network and thus reap the cash benefits as they move through the employment process, that is, like the bonus payments that ENs currently receive.
 - Establish a new incentive program for youth with disabilities ages 18–25 who are transitioning from the public school system that provides incentives for obtaining employment.
- Self-employment. There should be more viable opportunities for individuals with disabilities to engage in self-employment.

Highlights from the Jacksonville, Florida, Employer/Business Community Public Forum

Question: Share positive experiences with hiring, accommodation, retention, and advancement of people with disabilities in the workplace. How might this be multiplied so that it occurs more often?

A representative who is a three-term chairman of the Mayor's Disability Council; is a gubernatorial appointee to the Florida Rehabilitation Council, with involvement in many other organizations for individuals with disabilities; has an MBA in finance and a black belt; and is an individual with a disability shared his positive hiring experience with an employer in the Jacksonville area in the late 1990s. He was living in Philadelphia at the time and his resume had been posted on the Internet. He received a phone call from Bank of America (previously, Nation's Bank) to inquire about his interest in a position in the Jacksonville area for which the bank felt he was qualified. Because he knew the employer would need to fly him back and forth between Philadelphia and Jacksonville, he disclosed early on in the conversation that he used a wheelchair and inquired as to whether it was going to pose a problem, to which the bank responded "absolutely not." He was subsequently flown down two or three times before the job offer was made. After he assumed the position, the bank placed him in corporate housing for several months and covered his expenses. On the job, the accommodations that the bank had to provide for him were minimal: speakerphone, raised desk, and a track ball instead of a mouse for his computer. He was treated very well by a company that knew from the very beginning that he was a prospective employee with a disability. This occurred in 1998, when the unemployment rate was 4 percent and the bank was desperate to fill positions with specific expertise, and they were going across the country to find employees. The impetus at the time for the employer may not have been diversity as much as the need to fill a shortage, similar to the current climate in Florida.

The business relations coordinator for WorkSource⁹⁹ works with employers within the One-Stop Career Center to connect them to qualified job seekers. Recently, he met with a human resource (HR) specialist with UPS, who was looking specifically for qualified job applicants who are deaf. The HR representative, new to the Jacksonville area, was previously located in the Denver region, where UPS hired several employees who are deaf to handle the packages. In the WorkSource representatives experience, he feels that employers who can visualize a successful outcome (i.e., see or hear firsthand the benefits of hiring/retaining a job seeker with a disability) will be more open to hiring an individual with a disability. More peer-to-peer dialogue among employers is needed to help to send this message through networks like the BLN. The HR manager from Home Depot

shared an experience of an applicant who is a wheelchair user whom they asked to come in for an interview. The applicant was provided with different job descriptions and positions and chose to work in the phone center. The minor accommodation that Home Depot had to provide was to move some tables so that the individual could maneuver his wheelchair. This employee has been with Home Depot for two years. The business community stakeholders did agree that hiring one job applicant with a disability makes employers more open to hiring other qualified applicants with a disability; however, it did not replace the need for more education on the abilities of job seekers with disabilities. Sometimes individuals are placed in the wrong position in a company that is not conducive to their disability, and employers do not always know how to approach and/ or work around these situations.

The disability initiative manager with the Internal Revenue Service (IRS) shared that the IRS has a toll-free phone center in the Jacksonville area and for years it has actively recruited individuals who are blind to work the phones. These employees usually stay with the center long-term (some into retirement), and have a very good work ethic. This active recruiting for the toll-free centers has been seen as very successful within the IRS. Further, the IRS actively recruits individuals who are deaf at the three center locations across the state. The occupational specialist for Blue Cross/Blue Shield (BC/BS) of Florida, whose primary responsibilities include providing job accommodations, shared that BC/BS is strong in terms of hiring job seekers with disabilities, as well as providing accommodations for individuals who may develop a disability during their tenure of employment. It is important to BC/BS to retain their employees and they will provide the necessary accommodations to do so. The occupational specialist has found that providing an accommodation to an individual who needs it ultimately benefits the entire workforce. Like the other employers, the BC/BS representative concurred that providing accommodations is relatively inexpensive. At BC/BS, the process of providing accommodations for one employee is viewed by others as a positive step by the employer in terms of retention and represents better job security. Most stakeholder participants agreed that the big issue was not providing the accommodation but rather providing health care.

Question: Does your business/company have an internal special interest group or group that specifically represents employees with disabilities?

BC/BS has a diversity council. Even with the presence of this council, their experience has been that individuals with nonvisible disabilities are less prone to join and disclose because they feel diversity just means "disability" and it may hinder their ability to move forward in the company. BC/BS has

found similar experiences in terms of creating other diversity councils in that employees feel reluctant to disclose for fear that it will somehow impact their employment and chances for advancement. The IRS has a disability initiative unit.

Question: What do you feel are employers' perceptions and expectations regarding worker's with disabilities? That is, what is keeping people with disabilities out of the workplace from the perspective of an employer:

- a) Fear of legal action—discrimination charges?
- b) Concern about cost of accommodation?
- c) Concern about productivity?
- d) Concern about customer interaction?

In terms of "fear of legal action—discrimination charges," several employers agreed that if you visit a company's legal department you would most likely see more discrimination suits against other types of issues than disability. A business administration representative for Anheuser Busch feels that the four potential concerns may have been an issue in the past—over 20 years ago—but today, companies, especially the larger companies, are more open to address these issues. Twenty years ago, Anheuser Busch rarely made accommodations in Miami; however, now in Jacksonville it is a customary practice.

In terms of "cost of accommodation," most companies agreed that accommodations, except for sign language interpreters, were relatively inexpensive. To some companies, the thought of hiring a person who is deaf presents a huge barrier when you also have to consider the cost of interpreting services. During the interview and hiring process, someone usually accompanies a deaf person and interprets for them; however, the issue is what happens once the individual is hired. How are the costs of hiring an interpreter figured into the hiring package? Not all companies had this hesitation. A representative from BC/BS shared that the organization has always been open—and he has worked with BC/BS for 20 years—to hire a qualified individual in spite of the disability. He further referenced the tax credits and incentives that are available to qualified employers who do hire an individual with a disability. BC/BS takes advantage of these credits and incentives, which have eased the reluctance of bringing onboard an employee with a disability. If more employers were aware of these tax breaks, they might be more inclined to include individuals

with disabilities as part of their workforce. As discussed during the earlier forum of community partners, education and awareness are key.

In some cases, the barrier is the ladder that an individual with a disability, like any other employee, is expected to climb to reach a certain level/position. For example, the representative from the Florida Independent Living Council shared that often the better paying jobs are not available to an individual with a disability. A company may expect an employee to come in and start at the bottom; however, because of the nature of the disability, an individual may not be able to perform these tasks and thus has no way to get into a company and take a position for which they might very well be qualified.

Question: If you had the power to change and respond to the challenges that have been identified and to bring more working-age adults with disabilities into all types of employment opportunities and all sectors of employment—private and public—what policy recommendations do you have for NCD that would advance employment outcomes for Americans with disabilities?

- Business tax credits and incentives, reasonable accommodation and supports.
 - Make employers aware of available tax credits and incentives for hiring an individual with a disability and providing accommodations. Build on these supports and provide businesses with a combination of different types of tax benefits, incentives, and credits to help offset the costs of providing accommodations and make hiring individuals with disabilities a natural part of the process. Create a policy to support companies to include job coaching on the work site; that is, have the support and job coach be part of the business.
 - Provide significant credits or deductions of taxes to businesses (small or large) that have "X" percent of their total employee base individuals with disabilities, ensuring that the workforce pool includes all job levels and job structures, to discourage businesses hiring "X employees with disabilities" all in menial jobs. Create a point system based on the disability and the level of the job and responsibilities. The point system might encourage employers to hire individuals with a disability in the jobs they are the most qualified for versus starting at entry level because of the additional credit they will receive.

- Provide funding for the other types of supports that help individuals with disabilities find and retain a job, such as transportation and personal-care attendants. During the community partners' forum, it was suggested that counties should be allowed to control the local public system and provide additional monies based on a formula based on the demographics of the county. There is a benefit to providing different incentives to a business, which ultimately has to make the hiring decision.
- Businesses (both small and large) need to be educated on work incentives for SS disability beneficiaries that are available to both the individual with the disability and the business.¹⁰⁰

• Education and awareness.

- Discussions about hiring/retaining individuals with disabilities in the workforce and providing reasonable accommodation should be integrated into the training curriculum in business schools.
- All levels of society need to be educated on the abilities of individuals with disabilities and the many opportunities that should be available to them to explore and enhance these abilities. The individual with a disability is part of this education path and needs to play a key role in making these opportunities happen.
- A representative who does consulting and assessment surveys would like to see better and easier enforcement of the Americans with Disabilities Act (ADA). In his experience, businesses say they will not plan to make their facilities more accessible until they get sued, which is usually a difficult process and rarely happens. He sees the mentality as reactive versus proactive; that is, the perception seems to be why comply unless you need to versus it is good practice to make your business accessible. Even if individuals with disabilities are not currently customers and/or employees, compliance with the ADA can open it up to their presence in the future. Businesses should be educated on the purpose of the ADA and the reasons they should be in compliance.
- Recommendations to assist small businesses beyond education included providing a pool of resources for them to tap into to help them comply and meet ADA criteria. This will help them establish the infrastructure and be more willing to include individuals with disabilities as part of their workforce.
- **Telecommuting.** A policy that makes telecommuting a reasonable accommodation. For individuals who need workplace accommodations, telecommuting negates this need because they are already provided within the home setting. It breaks down a lot of the barriers that might exist in the workplace. Perhaps include a tax advantage to initially help employers

cover the one-time cost of setting someone up in the home with the necessary computer equipment. In response to this recommendation, some participants cautioned that telecommuting, while seen as a benefit, can also be interpreted as furthering the social isolation of individuals with disabilities.

- Job bank. Create a local/regional database that includes profiles of potential job seekers with disabilities that employers can tap into and search by skill level matched against predefined criteria. The Disability Program Navigator shared that the new Business Leadership Network is partnering with the Job Opportunities Consortium (for job developers) to use a recruitment tool that was donated by Vurv.¹⁰¹ This tool allows members to create profiles of only individuals with disabilities. This process allows the hiring decision to be made from a virtual assessment of skill sets, not physical appearance.
- Federal contract set-asides. The Federal Government currently has federal contract setasides for businesses that are minority owned or women owned, and has certain thresholds for Vietnam veterans. Do the same for small businesses that have X percentage of individuals with disabilities as part of their workforce or for a small business owned by a person with a disability.

Milwaukee, Wisconsin, October 12, 2006

The Employment Study Stakeholder Forum was held in the city of Milwaukee, Wisconsin, on October 12. Danna Rhinehart, Disability Program Navigator (DPN),¹⁰² assisted representatives from the National Disability Institute (NDI) and the Law, Health Policy & Disability Center (LHPDC) of the University of Iowa College of Law, with the logistics including identifying key stakeholders within the Milwaukee community. During the forum, stakeholders were provided with a brief introduction to the National Council on Disability (NCD) and the purpose of the Employment Study, along with a list of the proposed forum questions. The facilitator for the forum was Michael Morris, the director of NDI and interim co-director of LHPDC. Mr. Morris began the forum by sharing with the stakeholders that this represented an opportunity to have an open conversation about the challenges and opportunities related to employment for individuals with disabilities. He began by using the proposed questions; however, the group discussion allowed the participants to drive the dialogue and selection of questions.

The forum participants in Milwaukee included representatives from a wide array of organizations and agencies, such as local and state representatives from the Division of Vocational Rehabilitation; Independence First (Independent Living Center); Milwaukee Mental Health Association; Area Work Incentives Coordinator (AWIC) and Benefits Planning, Assistance and Outreach (BPAO) program, Social Security Administration; Milwaukee Area Technical College; Veterans' Employment Services; Internal Revenue Service; Housing Authority of Milwaukee; Milwaukee County Transition Advisory Board; representatives from Milwaukee's Job Centers (Department of Labor One-Stop Career Center); Word of Hope Ministries and Holy Redeemer; Interfaith Older Adult Program; Goodwill Industries; Milwaukee Public Schools; Milwaukee Area Technical College; HAFA/Hmong Friendship; Columbia St. Mary's Hospital; local advocacy groups; Milwaukee County Department of Human Services; Milwaukee County Disability Services; CleanPower; State of Wisconsin Department of Workforce Development; National Consortium for Health Systems Development; and local Disability Program Navigators (three Navigators cover the Milwaukee area and two were present at the forum).

Highlights from the Milwaukee, Wisconsin, Community Partners' Stakeholder Forum

Question: What key factors/elements bring public and private sector resources together, or that can come together, in a community to advance employment and economic opportunity for people with disabilities? What is working in Milwaukee in terms of coordination that is actually leading to better supports for individuals with disabilities who want to advance their employment status?

Disability Program Navigator Initiative and One-Stop Career Centers: The director of the Mental Health Association of Wisconsin feels that the implementation of the Disability Program Navigator (DPN) initiative is the link that has helped make the connection between community partners and the workforce development system in general. In relation to the mental health agency statewide, the DPNs have helped bridge the gap between the agency and the business community enabling the agency to provide mental health education and supports. This collaboration and community linkages have helped to open doors in counties where this connection had not been made prior to the implementation of the DPN initiative. A representative of the National Consortium for Health Systems Development, which is a group that provides technical assistance and consultation to Medicaid infrastructure grantees (Medicaid Infrastructure Grants),¹⁰³ feels the DPN initiative coupled with the U.S. Department of Labor's One-Stop Career Center system¹⁰⁴ is the factor that is connecting public and private sector resources. Vocational Rehabilitation (VR), which is a mandated partner of the One-Stop Career Center, and Disability Program Navigators, which serve One-Stop Career Centers, have greatly enhanced bringing public and private sector

resources together through the one-stop system to advance employment and economic opportunity for people with disabilities. Prior to the implementation of the one-stop system and DPN initiative, no other comprehensive umbrella pulled these resources together to assist an individual with a disability.

Question: How would you change the design of the current system to provide incentives to help improve the coordination and collaboration between the public and private sectors?

One-stop umbrella to coordinate supports and services. The forum participants felt that ideally the public system should be designed so that an individual can transition easily in and out of public support programs as needed. To address the multitude of different programs and funding systems, it would be beneficial to have "one stop" that coordinates the multiple systems under one umbrella, which individuals can access to learn what programs they are eligible for, based on need and criteria.

Better communication and coordination between the public and private sectors. The disability community and the business community still do not fully understand what each other needs in the way of information about hiring and retaining job seekers with disabilities. The representative from Goodwill Industries shared that Goodwill works with a lot of the agencies/organizations represented at the forum, that is, the public and private sectors, and is connected to the One-Stop Career Centers. In the Milwaukee area, Goodwill works with about 1,000 individuals with disabilities each year and places a fair number of them in jobs. From Goodwill's perspective, employers need to receive more education on the abilities of individuals with disabilities and the value of including them as part of the workforce. DPNs play a key role and can help facilitate this process, because they are coordinating and collaborating with the whole community. In the DPNs' experience, employers are open to including a diverse employee pool in their company; however, they are looking for an easy, uncomplicated process by which to do so. Employers see the myriad of services and supports that individuals need (not necessarily from the vantage point of being available to assist the employee so that they can participate in a meaningful employment opportunity) and think they have to do "a" and "b" in order to employ an individual with a disability. It seems too complicated and many would prefer not to exert this effort when they can hire someone without all the perceived added complications. The challenge for the public sector is to effectively make this process as painless as possible for employers.

Some forum participants felt that within the Milwaukee community there has been a significant amount of education and awareness on the benefits and value of hiring employees who have a disability and that this perception of added complications may be more of an issue for smaller employers. Small employers, who are looking for one or two employees, need to know upfront that hiring an individual with a disability is not a difficult process and supports will be available throughout the whole process. Employers need to be more connected to the one-stop system. Employers who are accessing the One-Stop Career Centers are finding it to be a credible resource. The forum participants feel that these two resources—DPNs and the One-Stop Career Center Lenter—have the ability to make inroads between the public and private sectors.

A representative with Interfaith Older Adult Programs shared that within the last month, she had received calls from two employers from the manufacturing industry, which is unheard of, as older workers are not typically seen as the type of employees to be hired for jobs in this industry. One of the employers asked the representative to come visit the work site to learn the operation and hiring process and provide feedback on what the company might do differently, because they were not finding skilled workers to fill their positions. Building upon this situation—that is, workforce shortage—and applying it to small businesses, community organizations need to rethink how they are communicating with businesses and become more proactive. The disability community, faith-based and community organizations, and VR—organizations that serve a lot of individuals who have a disability—can offer similar services to businesses.

Remove disincentives for collaboration. We will not be able to bring the public and private sectors together if we continue to have separate systems that must comply with different funding mandates. In order to begin to address these barriers, legislation must be passed that removes the current disincentives to collaborate.

Change the perception of disability and work. A basic problem identified by forum participants in the current public system is that an individual must be unable to engage in substantial gainful activity (SGA)¹⁰⁵ to qualify for Social Security disability benefits. This definition was more appropriate at a time when most individuals with disabilities were deemed "unemployable"; however, with modern medicine and access to assistive and other forms of technology, this definition no longer fits. The Social Security Administration's AWIC for the State of Wisconsin feels that the culture around beneficiaries of disability benefits needs to change in terms of the paradox that receipt of disability benefits means an individual cannot work. Some of these barriers are being reduced with the implementation of the benefit specialists associated with the SSA BPAO¹⁰⁶ program, who are providing benefits counseling to individuals with a disability. The

benefits counseling is helping to alleviate some of the fears of how benefits may be affected if an individual goes back to work. In the state of Wisconsin, the BPAO program is making a tremendous impact; however, there is still a gap between what it means to receive disability benefits and the desire to work and increase work options/opportunities. In order to bridge this gap, there needs to be a change in the cultural perception of receiving benefits so that it is seen as a transition to get to a place where a person needs to be. Benefits need to be integrated with the concepts of utilizing work incentives, connecting with employment supports, and ultimately obtaining and retaining employment.

Replicate model programs that look at the receipt of benefits as a gateway to work. Wisconsin is in the beginning stages of working on an initiative to address the needs of ex-felons as they transition back into the community. Most ex-felons are homeless and many have a disability and, as a result, will qualify for disability benefits, work incentives, and employment supports. During the transition period, this initiative proposes to connect ex-felons who qualify to a benefits specialist before they are released, as many will meet the eligibility criteria to receive Supplemental Security Income (SSI),¹⁰⁷ which pays benefits based on financial need, and/or Social Security Disability Insurance (SSDI),¹⁰⁸ which pays benefits to individuals who have worked long enough and paid Social Security taxes. In Wisconsin, if individuals receive SSI benefits, they also receive Medicaid, and the state pays for the Part B program, which covers prescription drugs. This model provides an intervention to the individual through the use of a benefits counselor and connection to Social Security disability benefits. This model is a community development one that includes all of the community partners individuals need to help them transition into and through the benefits system. This concept of early intervention can apply to many different populations, including youth with disabilities in transition and individuals who may acquire a disability. The essence of this model is the coordination and collaboration between multiple systems.

Though many of the recommendations offered by forum participants focused on the public side, the participants agreed that the more the public systems become united and seamless, the more the private sector will be affected. If the systems on the public side are fragmented and lack coordination, the employers are not going to work with them.

Question: What is the most significant barrier to entering employment or, once employed, to advancing in employment, for an individual with a disability? • Attitudes. The program manager for students with disabilities at the Milwaukee Area Technical College shared that for students who are conducting job searches, the most significant barrier they experience is attitudinal: the fear of hiring an individual with a disability and the perceived costs that may be associated with including an individual with a disability in the workplace. The biggest challenge for an educational institution is trying to conduct outreach to employers to provide disability awareness and sensitivity.

There still is a great lack of understanding about what it means to have a disability, and this is pervasive throughout every level of society. There needs to be a natural discussion of who people are and it needs to begin as part of the school system, so that individuals grow up knowing people with disabilities and what it means to have a disability. It should begin at the earliest age, because children are not born with attitudes: They learn them. To the degree that students experience students with disabilities and students without disabilities together has a huge impact.

- Job accommodations and supports. The second major challenge is educating employers on accommodations. The Veterans' Employment Specialist with the Department of Workforce Development shared that in his experience, employers want continued support for an individual with a disability that they hire, that is, ongoing support from the agency through which the individual came. On the flip side, employers also have a fear that the support from the agency may become too intrusive, that it may cross the fine line between giving support when it is needed but not when it is not.
- Skills and qualifications. A representative with CleanPower, a company that provides cleaning services to businesses, employs individuals with disabilities and feels that the company's major challenge is the individual's inability to perform the job functions. The IRS representative concurred, saying that the biggest barrier is the lack of qualifications of the individual. A representative from the local developmental disabilities agency, Milwaukee County Disability Services, further shared regarding acquiring and maintaining skills that many individuals with disabilities are not aware of their full potentials and, therefore, are unable to present them in a confident manner. Individuals with disabilities often experience gaps in their work experience and become disconnected from the workplace, which causes another challenge in terms of maintaining skills.
- Fear of losing benefits, including health care. It is such a difficult process to secure benefits that the fear of entering employment with the possibility of losing them is perceived as too great of a risk. This fear applies to taking a job, but it also applies to the fear of receiving raises and advancement once on the job. Many individuals with disabilities still are not connected to a benefit specialist and are unaware of work incentives and the impact of

employment on receipt of benefits. The need to have access to continuous health care coverage is a barrier for both the individual with a disability and the employer. Wisconsin has the Medicaid Buy-In¹⁰⁹ program, but forum participants feel that it does not fully address the problem. Individuals still are expected to pay high premiums for coverage. A consumer representative, with 18 years of experience, mostly in disability-related organizations, finds that the most significant barriers for an individual with a disability is income and asset restrictions. She has personal experience using the Medicaid Buy-In plan and working with benefits counselors. Because of the asset limits and restrictions, she has not been able to advance in her career and receive salary increases. Another fear for her is what will happen to the individual with a disability when he or she turns 65 and disability benefits turn into retirement benefits.

- Wraparound supports. Obtaining the supports that an individual needs access to in order to obtain and retain employment, such as transportation and housing.
- Educators need to have access to resources and information to help youth with disabilities advocate for themselves to get the services and supports they will need to obtain meaningful employment. A representative from the Milwaukee Public Schools transition program agreed with this statement. A teacher does not have access to information that students need to know in order to advocate for themselves to get the services and supports they will need to obtain meaningful employment. A barrier to the transition program is the inability to locate and share this information with students while they are still in school. Students may often have everyone making decisions for them and thus do not have the necessary skills or tools they need once they transition to postsecondary education and employment to advocate for themselves.

Question: How would you change current policies that suppress the effort of an individual with a disability to work?

Align Social Security policies for disability beneficiaries with retirement policies. Social Security retirement policies were instituted to address the needs of individuals 65 years old and who want to continue to work. Prior to changes in Social Security retirement policies, individuals who turned 65 years old and chose to continue to work and/or go back to work lost half of their earned income. As a result, these individuals limited their work to 20 hours a week, which is the same situation disability beneficiaries are facing. Apply these same policy changes to SSDI and SSI beneficiaries if they qualify; that is, allow them to work without it affecting their benefits (i.e., no asset or limit cap).

Long-term care policies. In terms of systems, Medicaid seems to be the only viable option to address the long-term health care needs of individuals with disabilities. Because the state of Wisconsin has one of the largest Medicaid Buy-In programs in the country, forum participants offered suggestions to improve it within the state, which could also apply at the federal level. When the Wisconsin Medicaid Buy-In program was implemented, it included a high tax on unearned income as an incentive for people to work their way off the public support system. An improvement would be to change the policy for everyone who is working above SGA to automatically have their gross income counted like earned income, that is, 3 percent tax on earned income to buy into the program. Second, include a vesting option whereby for individuals who work above SGA, after five years all of the income and assets stay in the buy-in for life and are treated with the same earned income disregard that individuals would receive from earned income if they were competitively working in the program. This option would allow an individual with a disability to save for the future while at the same time work his or her way off public supports. Another forum participant took this a step further, saying that it would be much better if this option were taken into account before the person was working at the SGA level.

Definition of disability and receipt of benefits. In the current policy, receipt of disability benefits is based on a disability determination. The forum participants suggested eliminating this step and instead having the medical determination be based strictly on severe level of condition. The focus of a new policy should be on the medical and functional assessments of a disability rather than on an individual's ability to work.

Question: In terms of employers and the Americans with Disabilities Act (ADA), should government offer some type of hold-harmless certification that signifies a business has made a good faith effort and as a result is immune from certain levels of legal action under the ADA?

A company could make the effort to obtain the certification initially, but then let it slip. Therefore, in addition to obtaining the certification some type of oversight must be in place to ensure that the business continues to meet certification. It might be an initiative that is piloted and evaluated to determine the strengths and weaknesses of such an approach.

Question: What are possible recommendations for the challenges and barriers that have been identified across the different systems?

Children and youth with disabilities. Children and youth with disabilities need to have an opportunity to develop their self-advocacy skills. There needs to be more effort in creating opportunities for inclusive education and integrated classrooms. In order to develop advocacy skills in students, one must start with the parents. The representative from the Milwaukee County Transition Advisory Board (MCTAB) shared that they started their work at the high school level, but recently began the transition process starting with fifth grade at a minimum. MCTAB is considering starting even earlier because parents are unaware of things such as wait lists for long-term services. Once or twice a year, MCTAB provides a forum for parents to provide them with information. For example, later this month the MCTAB forum discussion will focus on resources available pertaining to housing and independent living. In addition to resources and information sharing, a couple of young adults with disabilities will talk about their experiences and provide attendees with practical information. The MCTAB forum on employer issues includes employees with their respective employers answering questions about barriers and issues and how they are addressed. The purpose of the MCTAB forums is to provide parents with an opportunity to learn about problems youth with disabilities face and concrete strategies to address these problems.

Other forum participants agreed that it is important to educate and involve parents; however, they stated that is also very important to involve students with disabilities at a young age. Once students move from the secondary to postsecondary education level, community involvement, and/or employment, the supports and services that followed in the elementary and secondary school years no longer exist. It is a rude awakening for many young adults with disabilities, who had no previous exposure to navigating the supports and services systems, to know where to begin. In some cases, during the postsecondary experience, parents are still managing all of the services and benefits; however, this level of involvement cannot extend into the workplace, where young adults must learn to advocate for themselves. Forum participants involved in the school systems, especially at the postsecondary level, concurred that the continued involvement of parents at this level becomes very intrusive. Another participant, who is associated with an Independent Living Center (ILC), agreed and feels that it would be beneficial for more ILCs to focus on youth because ILCs are one of the few types of agencies that focus on all types of disabilities and all ages. The local ILC created a youth specialist position and each summer holds a youth forum to teach youth how to advocate for themselves and to teach them about the legislation process and how to get involved. In addition to being taught self-advocacy skills, Forum participants felt that students need to also be taught more about their disability.

So that challenges and barriers for youth with disabilities are addressed, work experience opportunities should be provided while students are in high school. Studies indicate that these types of opportunities are the greatest predictors of transition success. A representative from the Milwaukee Public School system, who is now the administrator for the transition program for the district, talked about the School-to-Work program. The program developed a relationship and built trust with employers. Employers realized that there was a place to go to express their fears and concerns, and realized that the program was responsive to their needs. Upon developing this level of trust, the employers were more open to providing employment opportunities for students with disabilities.

Another representative from VR shared that VR is looking to work more closely with the Milwaukee Public Schools to develop a public/private partnership that will include community-based organizations and employers, to look at how the team can work closely with employers to help transition students into permanent work situations. They are targeting the Human Resource Management Association, which has access to a lot of employers. The employers seem very interested in the pilot program, which will work with employers to help identify the needed skill sets to prepare students in the transition program. The employers in this pilot program will be making a commitment to provide a permanent employment opportunity after the student graduates from high school. Part of the willingness and commitment from employers is due to the fact that many are experiencing labor shortages.

- Job accommodations and supports. To address the need for ongoing supports by employers, but not to the point that they become too intrusive, the forum participants suggested creating a national technical support system like what is currently offered through the Job Accommodation Network.¹¹⁰ The proposed one-stop technical assistance portal for employers would be available to answer any question on any area of need in terms of hiring and retaining job seekers with disabilities, and accessing needed supports and services.
- Outreach and education to employers. Outreach and education to employers need to occur at three levels: community, state, and national. At the national level, campaigns that focus on the unemployment rate of individuals with disabilities need to be tied into the changing workforce. The representative with the Department of Workforce Development noticed that in the Milwaukee area there is a trend to provide incentives to retired older workers to rejoin the workforce. The idea is to bring back into the workforce individuals who have experience. If this same scenario is applied nationwide, then it is going to have a higher impact on people with disabilities. This trend reinforces the need to market the diversity of the workforce, which includes individuals with disabilities, and include success stories. An example

is Goodwill Industries, which has a food service contract at Great Lakes Naval Training Station. Eighty percent of Goodwill's workforce is made up of individuals with disabilities and for three years in a row the contract has received the highest award for the best food service of all of the naval bases in the United States. Goodwill took over that contract from a company that did not employ individuals with disabilities, and that performed so poorly it was fired. Since this experience, the Goodwill contracts have expanded to include the warehouse, personnel, and transportation sections on the base. These are the types of success stories that need to be part of a national campaign to communicate that there is no difference in the ability of workers with and without disabilities to perform a job and perform it well.

Proposed federal agency interdepartmental pilot demonstration: making work pay, eliminating financial disincentives. The director of state VR services shared that the Wisconsin Department of Workforce Development is proposing¹¹¹ to SSA that long-term services and supports be offered to individuals with disabilities before they reach 65 years old, by charging 15 percent on the earned income dollar as a premium for an individual to retain his or her benefits. This initiative provides an individual with a disability the ability to receive the cash benefit plus the health care or allows access to the health care piece alone. Some individuals are seeking assistance only with the health care piece; they can work but can no longer (because of their significant needs) meet their health care needs economically through private insurance. In this instance, it is not the cash benefit that is needed but rather the access to affordable health care. The latter scenario can serve as an early intervention and ultimately may prevent an individual from ever needing the cash benefit piece. In order to explore these options, the Wisconsin proposal recommends allowing states to obtain waivers on some of these rules and to try different things to see what works. In this scenario, regardless of the income level, there will not be a reduction in benefits, the individual is a taxpaying citizen, and over and beyond that the 15 percent premium serves as a sort of safety net for people with disabilities who are seeking to advance economically. The individual pays more taxes, earns more income, and pays a cost share.

The Wisconsin proposal recognizes that an individual with a disability automatically is going to have extra costs associated with his or her care and recognizes that the government does not have unlimited resources. The current low asset and income limits are not conducive to enabling an individual with a disability to move forward, so the limits are waived. The proposal also looks into consolidating the multiple funding agencies that touch the lives of an individual with a disability into one budget or under one umbrella. This proposal takes into account all of the current known issues and suggests cost sharing to ensure that the individual with a disability has access to the resources that will enable him or her to get on and off benefits as needed. From a cost-benefit analysis, this proposal adds value to the quality of life and society overall. The more people who work, the better off society is in terms of both budget and quality of life, ultimately contributing to the community, family support, and jobs.

Questions from the Jacksonville Forum:

The employers who participated in the forum in Jacksonville suggested creating a simplified tax benefit that would support accommodations and work incentives and encourage match savings plans to add to asset development for people with disabilities.

The Milwaukee forum participants unanimously agreed that this suggestion was a bad idea.

We have so many different kinds of public benefits and there are initiatives in different states experimenting with creating an individual budget in which public benefits are combined into one budget (inclusive of health care, long-term supports, work incentives, asset development strategies, transportation, housing subsidies, food stamps, etc.). Is that a good idea or a bad idea?

The forum participants thought that this was a great idea. Battling so many systems is the major problem right now for an individual with a disability. If the process could be streamlined, it could be made as simple as going to the mall and accessing a kiosk where an individual would input his or her family dynamics and learn what programs he or she is eligible for. This experience has been exhibited within the one-stop system, where a customer comes into the One-Stop Career Center, receives a registration packet, and has a choice of services. The central entity is responsible for figuring out the funding source.

Appendix E: Focus Group Summaries

Employer Focus Group

The Employment Study Employer Focus Group was held in the city of Golden, Colorado, on December 14. The focus group was held in a 60-minute session over lunchtime, during which a boxed lunch was provided for participants. Karen Hoopes, Disability Program Navigator (DPN),¹¹² assisted representatives from the National Disability Institute (NDI) and the Law, Health Policy & Disability Center (LHPDC) of the University of Iowa College of Law with the logistics, including identifying key employer representatives within Jefferson County and the neighboring community. Both prior to and during the focus group, stakeholders were provided with a brief introduction to NCD and the purpose of the Employer Focus Group was Miranda Kennedy, Program Associate with LHPDC. Ms. Kennedy began the focus group by sharing with the employer representatives that the focus group represented an opportunity to have an open conversation about the challenges and opportunities related to employment for individuals with disabilities. She began by using the proposed questions, but allowed the participants to drive the dialogue and selection of questions.

Employer Focus Group Participants

Six employers, ranging in size from large international companies with 22,000 employees to small family-owned and -operated businesses across a wide spectrum of industries, participated in the NCD Employment Study Employer Focus Group. Participants included a human resource specialist with EchoStar Satellite LLC, a dish network provider employing 22,000 worldwide and 1,300 technical service representatives in the local area; the owner of North American Handico, a sales company providing transitional employment to 37 people as they progress in their recovery from substance abuse and addiction; the owner of Medco, a small medical publishing company and a list management company; the owner of Honeyman Envelope and Printing, a small family-owned and -operated commercial printing business; the owner of Platte River Industries, a community rehabilitation program that employs 270 individuals, 75 percent of whom have a disability; and a representative from Aerotek Commercial Staffing, the second largest commercial staffing company in the United States.

During introductions two employer representatives disclosed that they have hidden disabilities. One individual reported having a learning disability his or her employer is unaware of, and for which the individual provides self-accommodation. Another participant disclosed being hard of hearing. Other focus group members shared that they have family members, most notably children, with disabilities. These employers expressed that their personal experience has driven their interest and engagement in creating employment opportunities for people with disabilities. In addition, the representative from Platte River Industries shared that he has been a professional in the disability field since 1966 and his company is a recipient of community government contracts through the JWOD program.¹¹³

Highlights from the Employer Focus Group

Question: We want to learn more about what is helping you recruit, retain, support, and advance the employment of individuals with disabilities. Describe policy and practices that are working related to recruitment of individuals with disabilities.

Focus group members described posting employment positions through a variety of mechanisms, such as newspapers and community papers, and with community and faith-based organizations to recruit qualified applicants, including individuals with disabilities. The "word of mouth" process was referenced as one of the most effective ways to get word out to this population about disability-friendly employers and open positions. Two of the employers, Platte River Industries and Honeyman Envelope and Printing, shared that they specifically target their positions to individuals with disabilities in the language used in the job postings.

Aerotek Commercial Staffing related that (in response to the recruitment question) they receive calls from state organizations presenting the case for hiring specific individuals with a disability. The provision of job coaching by these agencies has really helped new employees with disabilities to be more successful in their positions.

The Platte River Industries representative stated that DVR (Division of Vocational Rehabilitation)¹¹⁴ has been excellent over his 40-year career. "The problem occurring in the last 10 years is that on an ongoing basis, that organization [DVR] has been just ripped in terms of government funding. . . . I would see that organization in and of itself can do an excellent job of getting people an opportunity and access from starting at the high schools forward. But over the last 15 years . . . they have been squeezed to the points within their budgets that it's virtually impossible for them to implement their mission. The actual formal intro for supporting jobs with these folks [individuals with disabilities] has always been DVR but they've been hammered significantly. I know in the state of Colorado personally, you have close to 20,000 people with chronic mental illness looking for opportunities of employment and there's really no process effective at this time, on an ongoing basis, to help them. All our programs in the state are that way."

The representative from EchoStar said that they have developed a program as a point of entry for individuals with disabilities who might not otherwise get an interview. This program provides a "jump start" by offering the assistance of a job coach and additional supports to help the applicant prepare for the interview and the rigorous testing process. However, despite marketing and working with Vocational Rehabilitation, it was reported that individuals with disabilities underutilize this program.

Question: Please describe policies and practices that are working related to accommodations.

The discussion turned toward accommodations and how companies are providing accommodations to new employees with disabilities, or employees who acquire a disability. The employers present all identified DVR as a major provider of accommodations and accommodation-related resources and services. A majority of focus group participants agreed that, to the extent possible within their companies, the use of flextime for employees with disabilities was also provided as an accommodation. Aerotek Commercial Staffing elaborated on this issue by explaining that flextime has been used by their employees with disabilities more as a result of work schedules being affected by the individual's dependence on the public transit system and/or Access-A-Ride¹¹⁵ than as a direct accommodation of an employee's disability. He added that public transportation has gotten better in the past few years in the local area, Denver and Boulder. This has made a difference.

Question: Please describe policies and practices that are working related to retention.

The human resource specialist for EchoStar reported that the company has accommodated people in full-time positions who were on the verge of losing their Social Security benefits by letting them convert to part-time. "When we have people that come in with disabilities, they'll work a certain amount of time and say, you know what, I need to go part-time and I need to go part-time because I'm going to lose my benefits. So we don't lose them attrition-wise as an employee, but we are still taking up a whole 8-hour-a-day or 10-hour-a-day seat for the person who can only work part-time." The representative went on to explain that her organization does not hire additional part-time positions to augment the work of employees who cut back on work hours and that the accumulated effects of this type of work accommodation can result in a production loss for the company as a whole.

EchoStar also identified decreasing the time it takes for employers and employees to access supports such as job coaching as a way to further facilitate retention. Employers would benefit from having access to more job coaches who are experts in different fields. "I wish we had actually a resource pool of job coaches that come on site. . . . We are just right now working with someone with many different situations, issues, OCD [obsessive-compulsive disorder].¹¹⁶ He's not going to make it in this position. We are trying to find another position with the company that would work."

Question: Please describe policies and practices that are working related to mentoring and career advancement.

Two employers discussed their positive experiences with offering mentoring opportunities to employees with disabilities. In the case of Medco, a small medical publishing business, a scenario was shared about mentoring that evolved through a formal plan, promoted and supported by the employer, between a new employee with a disability and another employee who also has a disability. As a result of this mentoring the new employee is developing work skills and confidence and is advancing in his career. EchoStar has a standard program for all of its new hires, including new hires with disabilities. All new employees engage in "career pathing." This involves being grouped in teams of ten to fifteen with a coach; this team then serves as a support mechanism for all team members as they progress together to different levels and achieve higher pay grades within the company.

Question: What more could the Federal Government do to support employers who want to hire workers with disabilities? What are the policy barriers and policy facilitators?

An area that focus group participants felt very strongly about was the fear of discrimination lawsuits under the Americans with Disabilities Act (ADA). The resulting effect this fear can have on employers is an unwillingness to hire qualified individuals with disabilities. It was expressed by many present that employers are concerned about these types of lawsuits even in the cases in which they are doing everything to the letter, and in the spirit, of the law.

EchoStar's human resource representative stated, "As individuals that hire and also try to retain all employees, no matter what, we (the human resources team) have a fear of hiring people with disabilities because even though we think we are doing everything right and we think that, you know, what else could we do? We're still liable to lawsuits from the individual, also from the EEOC [Equal Employment Opportunity Commission].¹¹⁷ You could have done 150 percent of anything that could be done and that does not exempt you from lawsuits." She went on to describe the relationship between the ADA and employers as similar to the conflict between labor unions and management.

The employer focus group participants came to a consensus on the need to provide external supports to employees with disabilities so that they can maintain employment. Topics brought up by the participants included increasing access to timely and reliable transportation options; the need for government assistance in providing prescription and other health care assistance to employees with disabilities; assistance with housing; benefits planning; and flexibility with Social Security recipients who are seeking employment.

Aerotek Commercial Staffing commented on public transportation in the local area: "It's made a big difference with people with disabilities, especially the call and ride. It's gotten better and it's getting there helping us with people [employees]. It's important."

The lack of exposure to the world of work for today's youth with disabilities in the school system was identified as an area of concern. The representative from Honeyman Envelope and Printing remarked, "In the school system today many, many students with disabilities are segregated and the perception is that they are different and they can't do things. If you are looking for companies that are trying to recruit people, they have jobs open. Oftentimes if you look at people with disabilities, and employers think just look for someone to fill this position." He continued that in schools today, "they take all the kids with disabilities over to the mall and take them down to P.E. and . . . out in the real workplace. . . . The perception is that they [the school system] right-hand-turns disabled youth and think they can't do things because that's what society believes."

Platte River Industries added, "We have a mechanism nationwide [in the DVR] that could expose them [youth] to work if we would fund it. So I guess you go to DVR. It's got its weaknesses, but it's already in place in every state in the United States. It just needs to be refunded to the point it was 20 years ago. That might help."

Platte River Industries identified security clearance¹¹⁸ for government contracts as a barrier to employing individuals with disabilities who have a criminal record. "I think the biggest problem since 9-11 that has impacted us across the board with all government contracts is...we have our stores and facilities here at DIA [Denver International Airport] and security is obviously gone off the wall since then. A person with a disability . . . may have encountered being considered disruptive in their community or they may have had an issue in their community or may have come into some situation—alcohol or drugs—and [now] they can't clear any of the clearances. So if you have a DUI,¹¹⁹ basically you can never work at the U.S. Mint." Though security clearance at these facilities was acknowledged as critical to safeguarding the nation, it was seen as too prohibitive when it comes to employment of people with disabilities. "We end up turning down probably forty to fifty percent of persons with disabilities that apply for jobs with us in the Federal Government because we can't get them cleared." The suggestion was made to reexamine security clearance requirements.

Question: What more could the Federal Government do to support employers who want to hire workers with disabilities? What changes would benefit small business (i.e., tax credits,¹²⁰ other)?

North American Handico's representative stated that most of his employees take Access-A-Ride. He suggested making this type of call-and-ride transportation for workers with disabilities a free service. One of his workers who has a disability that necessitates the use of special transit is currently spending twenty-five percent of her paycheck on transportation. In addition, it was suggested that better coordination of transportation routes and schedules by public transit authorities could maximize the number of workers with disabilities using this system between targeted neighborhoods and business districts.

The discussion moved to tax incentives for hiring people with disabilities. Employers in the group, across the spectrum, reported that government tax benefits are underutilized because of their complicated nature and the extensive paperwork and level of knowledge and time it takes to access these benefits.

The employer with North American Handico responded that though he does utilize tax credits for hiring and retaining employees with disabilities, "It's a nightmare. I hate it."

The Platte River Industries' representative added, "If I was a small business, I would never get involved in the tax benefit stuff. . . . A small business would lose their mind with the way it is structured."

EchoStar has an internal position in its company that specializes in accessing government tax benefits for hiring employees with disabilities. However, there is a lot of turnover in this particular position resulting from burnout. It was recommended that a comprehensive information campaign on the benefits of hiring individuals with disabilities be targeted to employers. This campaign would include information on tax incentives and other available supports. The idea would be to saturate employers with information and resources through a variety of mechanisms and media. To augment such a campaign, an 800-number could be provided for employers to access one-on-one assistance from a trained tax benefit specialist. It was discussed that this could be another service provided by the regional ADA & IT Technical Assistance Centers.¹²¹

* * * * *

In summary, the focus group participants identified some of the policy barriers that are specific to employers and suggested some ways in which they could be improved. Participants identified the following as barriers: fear related to the ADA and discrimination lawsuits; decreased funding for Vocational Rehabilitation programs and the need for more timely access to a higher level of job developing/job coaching services; difficulty in accessing tax credits and other incentives and supports; school systems not preparing youth with disabilities for work; and the need for additional external supports related to issues such as benefits planning, transportation, health care, and housing for employees with disabilities. The focus group suggested increasing funding to Vocational Rehabilitation programs and other support services. "Use what is already available." In addition, the suggestion was made of hosting a publicity campaign and creating a 1-800 number for one-on-one assistance to employers through a mechanism such as the ADA & IT Centers. This could serve to get the word out about the benefits and incentives associated with hiring qualified employees with disabilities while also increasing the utilization of existing supports.

Veterans with Disabilities Focus Group

The Employment Study Focus Group was held on December 15, 2006, via a 90-minute audioconference. Joel Delofsky with the U.S. Department of Labor (DOL) Veterans' Employment and Training Service (VETS);¹²² Kathy Henry, a Disability Program Navigator (DPN),¹²³ and Bob Whiteman, a Disabled Veterans' Outreach Program (DVOP)¹²⁴ specialist, both with the state of Vermont; and Jean Nelson, a DPN with the state of California, assisted representatives from the Law, Health Policy & Disability Center (LHPDC) of the University of Iowa College of Law in identifying key stakeholders within the veterans' community to participate in this focus group. Once participants were identified and confirmed, they were provided with a brief introduction to NCD and the purpose of the Employment Study, along with a list of the proposed questions . The facilitator for the focus group was Laura Farah, a program associate with LHPDC. Ms. Farah began the focus group by sharing with the stakeholders that the focus group represented an opportunity to have an open conversation about the challenges and opportunities related to employment for veterans with disabilities, that is, what is working and what can be improved related to policy, programs, public benefits, and methods of administration. She began by using the proposed questions but allowed the participants to drive the dialogue and selection of questions.

Veterans' Focus Group Participants. The list of invited focus group participants included veterans who have a disability and representatives who work on their behalf. In addition to Mr. Delofsky, who is with the DOL VETS program and serves as a coordinator for the Jobs for Veterans National Lead Center located in Chicago, and who is also a disabled Navy Veteran from the Vietnam era, and Mr. Whiteman, who serves as a DVOP specialist employed by the state of Vermont's Department of Employment and Training and is located in the Burlington area, focus group participants included a representative who was medically discharged in May 2006 and is currently working for the DOL VETS Recovery and Employment Assistance Lifelines (REALifelines)¹²⁵ program and is located in Arlington, Virginia, at the Military Severely Injured Center. The REALifelines participant shared with Mr. Delofsky: "I think it's crucial for our workforce and our government to know the possible barriers that may come with disabilities. I am a perfect example of the invisible wound in addition to the silent wound [Post- Traumatic Stress Disorder]." The focus group participants also included another DOL VETS representative stationed in the Dallas regional office, who has been out of the Army since 2000; a retired Marine as of February 2006, who was severely wounded while on active duty and who is currently working in the office of Senator Kay Bailey Hutchison; a representative who is a medically retired Marine as of July 2006 and who currently works for a private company assisting other veterans with disabilities in obtaining work opportunities; a representative who had returned from active duty in Iraq a year to the day before the focus group meeting and who currently serves as a Local Veterans Employment Representative (LVER)¹²⁶ with the state of Vermont; a representative retired from the Army in 2001 and identified as 40 percent disabled; a captain who was medically retired in 2004 and who is currently self-employed and owns two companies that employ a total of eight employees, 25 percent of whom are veterans; a representative who was encouraged to take medical retirement from the Air Force in 2003 and who is currently working with special education students at a middle school in Vermont; and a representative from the San Diego, California, area who has been identified as having a 100 percent service-connected disability, and who currently is participating as a volunteer through the Disability Outreach Offering Resources through Service (DOORS)¹²⁷ initiative as he is seeking employment.

Highlights from the Veterans' Focus Group

Question: What are policy barriers to the hiring, retention, and recruitment of workers with disabilities? What policies and/or practices can be improved?

Marketing and outreach: Federal, state, and community level. Several of the representatives began the group discussion by sharing that through the introduction piece alone, they learned about programs and services that are available to assist with employment they were unfamiliar with, such as the DPN initiative and the One-Stop Career Centers, and wanted to know how individuals who could benefit from the services of these programs, that is, veterans with a disability, are supposed to find out about and access them. "Finding out about the information" was identified as a huge barrier. The representative with REAL if elines shared that in writing policy she sees this as one of the barriers that veterans face when dealing with the different service components (Army, Navy, Marine Corps, and Air Force). At the national level they are trying to implement congressionally mandated policies to help the service components understand the barriers faced by veterans who have a disability, especially through the transition period and subsequent reentry into civilian life. There is a need for someone "on the outside" to be available to provide guidance to service members, which is what the REALifelines program is all about. The representative, who assists veterans with a disability in finding employment, shared that there is no coordinated, concerted effort to get the word out. There needs to be a major national advertising campaign to get the word out about all of the different employment-related organizations and the services they provide. It was suggested that the Federal Government already has an avenue to conduct a national advertising campaign through the Ad Council.¹²⁸

In addition to a marketing campaign through some type of media advertisement, there is the community-level, personal approach to outreach. The LVER shared that often there is no money in a program's budget to cover costs of advertising. He conducts all of his outreach by attending business association meetings, such as that of the chamber of commerce, in the counties that he covers. While at these meetings, he shares information about the programs available through the

DOL One-Stop Career Centers¹²⁹ through the Workforce Investment Act (WIA),¹³⁰ such as on-the-job training (OJT) programs. He has found that most employers are unaware of these programs and how they can be utilized to access a diverse pool of qualified applicants that includes veterans who have a disability. Through this personal level of contact and outreach, employers have begun accessing the One-Stop Career Centers and placing job orders to include veterans as part of their workforce. The DOL VETS representative, who elected to share her thoughts via electronic mail after the audioconference, noted that opportunities do exist to get ad time/space as a bonus from newspapers and television stations, as well as other media outlets. For example, many nonprofit organizations work with large companies to obtain sponsorship. This may be something that programs can look into on a community level to assist in outreach and marketing efforts.

Another representative suggested that if we are talking about information specific to veterans who have a disability, then an alternative to a media campaign is to have the information funneled directly to the veteran through the entity that distributes the Department of Veterans' Affairs (VA) pension checks. This process would be more cost effective and the information would go directly to the intended target audience and serve as a way to provide both education and awareness of available programs and services, including how to access them.

Interagency coordination: Among federal, state, and local agencies. In discussing a national marketing campaign, the focus group identified as a barrier the lack of interagency coordination among the different departments located within multiple organizations that are centered around assisting veterans in connecting to meaningful employment (e.g., VA, DOL, and even within the Department of Defense [DoD]). An example of this lack of interagency coordination was brought up by the representative from California, who is in the process of locating employment and currently is serving as a volunteer through the DOORS initiative. In his experience, the national and state veterans' employment-related programs he has been connected with through the VA, such as Vocational Rehabilitation (VR), were not very helpful. He was not directed to any resources/ programs to find assistance, but rather was more or less left alone and was responsible for reporting back on his experience in looking for work. On his own he visited a DOL One-Stop Career Center where he learned about the DPN, whom he felt "provided a much broader ability to help veterans find jobs." Building upon the interagency coordination suggestion, this representative felt that it would be an improvement if these various programs/agencies were connected so that when one program lacks a resource and/or cannot provide assistance, the program representative will have the ability to direct veterans to a program/service that can assist them.

In Vermont, the DVOP shared that the Department of Employment and Training enters into memorandums of understanding (MOUs) with various state and federal organizations/agencies that touch the lives of a veteran with a disability, to make moving a veteran with a disability back into the workforce a more coordinated effort. The various agencies involved in this agreement include the VA and its Vocational Rehabilitation and Employment (VRE) program and REALifelines. An example of this coordination is a veteran coming out of the VRE program. The VA provides the DVOP with the essential information, including the date the individual will be discharged from the program. The DVOP, through policy established in the MOU, is then able to try to make contact with the individual to learn about his or her specific needs, including what kind of further training or assistance he or she may need to obtain employment. The DVOP shared that while this is a good program, he concurs that many veterans are unaware of it, which further validates the need to have a more concerted marketing and outreach effort on the national, state, and local levels.

The DOL VETS representative suggested that at the federal level perhaps one agency can be designated to take the lead and serve as the umbrella agency to bring together all of the different programs that touch the lives of a veteran with a disability. A veteran would have one national phone number and one point of contact with one Web site where the names, locations, and services of each organization could be accessed.

Access to transportation: Accessible and responsive. Even if a veteran were aware of the available programs and services and qualified for employment opportunities, without reliable, accessible transportation, these other programs and services are of little benefit. One representative suggested that addressing support needs, such as access to transportation, is best done at the community level—for example, through a veterans' outreach office that can start a volunteer service of veterans who can drive other veterans. Another representative, who relies on transportation assistance, shared that he accesses the volunteer transportation program within his community. However, the volunteer program provides only transport to services such as medical appointments, a designated number of shopping trips each month, and a designated number of personal trips per year. The volunteer program, however, does not provide assistance with his transportation to and from work five days a week, for which he said he has to "beg for a ride every day to go to work." He lives in the state of Vermont, which is primarily a rural state, but his town is the second-largest in the state. The community has a city bus, but the closest route to his home is four miles away and for the past four to five years, the town has voted against bringing bus service to the community. The bus is allowed to deviate up to one mile from its projected route to pick him up if he calls in advance; however, he lives four miles away. The lack of regularly available transportation impacts more than just his ability to get to and from work; it also affects his social life.

Question: What are some suggestions for improvement in terms of the barriers that have been identified?

Case management: Assignment of a coordinator agent. A barrier identified by the representative who is currently working with special education children is the lack of coordinated case management. He has been out of the armed services for three years and during this time has had four different individuals (not all affiliated with the same agency) assisting him with his case. This includes a VR counselor who assisted him with the VRE training program and then closed his case, at which time he became connected with the DVOP; a state caseworker with the Vermont Division for the Blind and Visually Impaired (DBVI), who performed the needed tasks and then closed his case; and an individual who assisted with obtaining the prosthetics and needed equipment. In his opinion, he did not receive coordinated and connected services but rather individual and separate assistance. His most successful experience of the four mentioned was with the case manager from DBVI, because she stayed with him throughout the process while she had his case. When she was not able to assist him, she connected him to another responsive service/ program. In his words, he had "somebody he could go to."

The other participants suggested that one improvement would be to have one person identified to serve as the overall case manager, who would be responsible for overseeing the whole process. Though the designated case manager may not be the individual who is providing the assistance, the "coordinator agent" (as the participants coined the term) would know how to navigate the myriad programs and services and make the appropriate connections, similar to the job description of a DPN.

Interagency coordination: Federal and state connection. The REALifelines representative felt that there was a need for the federal level to be more coordinated with state-level programs, that is, improving the relationship with the states in terms of better oversight and management of grants/programs. She felt that this disconnect—between the national and state level—is one of the major reasons the information about these programs and services is not getting to the community level. In the Military Severely Injured Center, where she is employed, staff tries to communicate at the regional, state, and grassroots levels to try to get this information to the veterans in an attempt to prevent them from "falling through the cracks." However, it is not as successful as they would like.

Her suggestion for improving this connection is to conduct federal training that would bring state and regional administrators together to ensure that they are receiving a consistent message. Though states currently do have certain guidelines they have to comply with, they also have a lot of flexibility in how they implement these national programs. The representative from Senator Hutchison's office suggested that perhaps one does not have to go to the extreme of requiring every state to follow the same guidelines. Instead, each state would be required to identify a "veterans' ombudsman," who would be charged with taking the lead on handling veterans' affairs. The ombudsman would be responsible for making reports to the federal level outlining the state's strategy and maintaining regular communication, thus allowing the federal level to maintain oversight and ensure that all states are following the requisite guidelines to make sure the information is being disseminated adequately and received by all levels.

Informed consent: Benefits of disclosure during transition. Participants pointed out that the Health Insurance Portability and Accountability Act (HIPAA)¹³¹ and the HIPAA Privacy Rule¹³² may indirectly pose a barrier to veterans with a disability during the transition process, because they cause the service components to be reluctant to share any private information. During the transition phase, service members are not informed or provided with an opportunity to decide whether they want to disclose that they have a disability and, further, to have this information released to employment programs and potential employers. Some participants felt that the ability to have this information released is important because employers do not understand barriers specific to veterans with a disability and need to be educated on how they potentially may affect a veteran in the present and future, such as in the case of post-traumatic stress disorder, which may manifest itself down the road. The suggestion for improvement is to inform service members during the transition process about their options of whether to disclose, including the possible benefits, assistance, and services and supports available as a result of disclosure.

Work incentives for employment. Though none of the participants identified having any experience using work incentives or knowledge about work incentives available to employers, it was suggested that employer work incentives to hire a veteran with a disability would be a major benefit to veterans seeking employment. Veterans are at a slight competitive disadvantage when they reenter the civilian employment market. These special work incentives for employers would emphasize attributes such as discipline, integrity, and a strong work ethic that veterans offer. Another benefit identified for employers hiring a veteran is that the majority of veterans leave active duty with some level of security clearance. However, one participant shared that having the security clearance alone does not always work to the veteran's advantage. This participant has both a secret security clearance (inactive) and experience working on aircraft. He had a negative experience applying for a position with the Transportation Security Administration (TSA) of the U.S. Department of Homeland Security. During the pretesting phase, it was identified that he was a veteran with a disability and he was told that as a result he was not eligible for employment with TSA. Because of this negative experience, he no longer discloses his disability when he approaches potential employers.

As a case manager, the DVOP helps veterans return to the workforce by using the training programs and services available in the DOL One-Stop Career Centers available to eligible participants through WIA as an incentive for an employer to hire a veteran. For example, WIA-eligible individuals can participate in the OJT program, which connects an individual to an employer to provide training (or retraining) for up to six months and includes up to 50 percent reimbursement for wages. In order to entice employers into providing this type of training opportunity to veterans, the DVOP reinforces the fact that veterans are very "disciplined." Though WIA training funds are limited to individuals who have been identified as target groups for priority of services, veterans are included. In addition, the DVOP representative can access other programs to cover a percentage of the costs for purchasing work clothes and any needed tools to assist the veteran in the OJT opportunity.

Question: How can employer relationships be strengthened and enhanced?

In the earlier discussions, participants touched upon the availability of special work incentives for employers to hire veterans who have a disability and ensure employers are aware of the incentives. Participants also touched on the need for employers to understand specific barriers associated with veterans who have a disability and the impact these barriers may have on their job functions. The representative who is self-employed with two companies shared that he tries to offer his employees flexible work schedules. Twenty-five percent of his workforce are veterans and, from personal experience, he knows that some days are better than others for a veteran who is sick or has a disability. He provides a four- to five-hour leeway to come in to perform necessary job functions. If the position is a mission-critical one, however, allowing a flexible work schedule becomes a challenge. Though this is a good accommodation and he finds that the majority of employees do not take advantage of it but rather exhibit a stronger work performance and work ethic; in order to take advantage of this accommodation some employees may have to accept a lower-paying job for which they may be overqualified.

Question: Are there any special programs or strategies that should be replicated?

Department of Defense: Operation Warfighter. One representative shared that for several reasons, the transition from active duty into civilian employment is very difficult for those who have known only military life. Likewise, the transition to civilian employment also is difficult for individuals who may have had a career prior to entering the military, but who, while on active duty, lost a limb or incurred some other type of disability that may have impaired them from continuing with the career they had before they entered the service. It often is very difficult for veterans to know how to "civilianize" a resume to make themselves marketable in the private sector. For these individuals, as others, the transition from active duty (a government job) to the federal sector is seen as more desirable than is taking a job in the private sector. Veterans feel that the federal sector is more familiar with their situation and will be more accommodating to their needs. Recognizing this, the Federal Government implemented a program over a year ago called Operation Warfighter.¹³³ This program serves as an incentive to both the employee (veteran) and the employer. Service members in medical treatment facilities who are in the process of transitioning from active duty enter the Warfighter program. Through the program, service members have the opportunity to participate—while still on active duty—in OJT experiences with various federal agencies to both gain skills and network. While service members are working for the different federal agencies, they are building a resume on top of what they have done previously in the military. By the time the service members get out of the service, they already have a good grasp of different types of jobs available throughout the federal sector. Another benefit of this program, and working in the federal sector, is that veterans receive needed accommodations to perform their job functions through the Computer/Electronic Accommodations Program (CAP).¹³⁴ CAP provides assistive technology and services to people to federal employees with disabilities. Veterans, therefore, have the opportunity to access and learn to use adaptive equipment in the employment setting. Operation Warfighter currently is operational only at the federal level. The REALifelines representative said that to date about 140 service members have been placed in jobs as a result of the program. The goal is to extend this type of program to the private sector.

Department of Veterans' Affairs: Compensated Work Therapy/Veterans Industries. Another special program participants identified as providing training and work experience opportunities to veterans who have a disability is the Compensated Work Therapy/Veterans Industries (VI/CWT)¹³⁵ program. This program is similar to Operation Warfighter in that it places a veteran in a work-opportunity experience. VI/CWT supports veterans by providing case management

and vocational rehabilitation services that facilitate competitive employment opportunities with supports as needed and desired. It maintains relationships with business and industry to promote employment opportunities for veterans with physical and mental disabilities.

* * * * *

In summary, the focus group participants identified some of the policy barriers that are specific to veterans who have a disability and suggested some ways in which they could be improved. In general, they felt that there needs to be a more concerted effort on the part of all agencies/ programs that touch the lives of a veteran. There are different programs under multiple federal agencies that operate under different mandates. These programs should be coordinated so they can blend and braid funds and resources at all levels. There should be increased effort at ensuring that veterans are aware of the programs and services available to assist them in their employment efforts and know how to access them through a multilevel marketing and outreach campaign. There should be an organization at the federal level designated to consolidate information about these programs. At the state level, a veterans' ombudsman should be identified to serve as the coordinator of the programs and services at the state level with federal-level accountability. Finally, at the individual level, one individual should be assigned to serve as the coordinator agent to respond to the needs of a veteran who has a disability and help him or her navigate and connect to the myriad services and programs. A closing remark from one of the participants synthesized everything into one important concept: It is important to remember that in and of itself, finding employment is a key component in treating and preventing disorders such as PTSD. Ultimately, investing in these efforts can be considered a cost-saving measure on the part of government.

Self-Employment Focus Group

The Self-Employment Focus Group was held on January 11, 2007, via a 90-minute audioconference. Cary Griffin and David Hammis, of Griffin-Hammis Associates, LLC,¹³⁶ assisted representatives from the National Disability Institute (NDI) and the Law, Health Policy & Disability Center (LHPDC) of the University of Iowa College of Law in identifying key stakeholders within the self-employment community to participate in this focus group. Once participants were identified and confirmed, they were provided with a brief introduction to NCD and the purpose of the Employment Study, along with a list of the proposed questions . The facilitator for the focus group was Michael Morris, the director of NDI and interim co-director of LHPDC. Mr. Morris began the focus group by sharing with the stakeholders that the focus group represented an opportunity to have an open conversation about how to improve self-employment options for individuals with disabilities across the country, that is, to discuss the barriers and challenges individuals with disabilities face in becoming entrepreneurs. He began by using the proposed questions but allowed the participants to drive the dialogue and selection of questions.

Self-employment focus group participants. The list of invited focus group participants represented individuals with disabilities who have chosen self-employment as an employment option, and representatives who work on their behalf to support this option. The focus group participants included a new entrepreneur whose business has been up and running for two months, who is a benefits planner from Oregon; a father from the state of Kansas, whose son, who is nonverbal, has been running a successful Kettle Corn business for two years; representatives from the Cobb Douglas County Community Services Board,¹³⁷ who serve as support professionals to individuals with disabilities; two entrepreneurs from Georgia; representatives from Iowa, including a benefits planner; and a certified rehabilitation counselor who is also an entrepreneur.

Highlights from the Self-Employment Focus Group

Question: What do you feel—either for yourself or in the role of support—are the key factors that are making a difference in helping individuals pursue self-employment?

Flexibility of dollars. A representative with Cobb Douglas County began the discussion by sharing that one of the factors that made a different in their support of an individual with a disability to engage in self-employment was the flexibility of the dollars associated with a Customized Employment Grant (CEG),¹³⁸ which is funded through the U.S. Department of Labor's Office of Disability Employment Policy. Services available through a CEG may include strategies such as job carving, self-employment, supported employment, job restructuring, provision of natural supports, and other job-development strategies that are individually determined and customized to the needs of the individual. The CEG puts the funds in the hands of the individual with a disability—with good oversight and accountability—to control how the money is used.

Flexibility of Vocational Rehabilitation policies. In Georgia, at least at the local level, participants felt that some policies through Vocational Rehabilitation (VR) were interpreted in a conservative manner. Support personnel through Cobb Douglas County felt they had to demonstrate to VR how it was possible to help individuals with a disability achieve their stated employment option. Once they were able to demonstrate successful outcomes, VR became more flexible with

some of its policies. For example, in the Cobb Douglas County area, VR previously would provide funds to assist an individual but not a business. VR now provides funds to purchase resources to benefit both the individual and the business.

Ability to develop business around the needs of the individual. The benefits planner from Iowa works closely with many individuals who are looking into self-employment opportunities and feels that one of the main reasons this option for employment is so successful is that it allows flexibility in the type of work and hours specific to the individual's needs and disability. Selfemployment provides the opportunity "to develop the business around their [the person with a disability's] schedule." The entrepreneur who was able to start his own business through a CEG grant in Georgia concurred and shared that "one of the things that he really appreciated was that he could decide what he wanted to do." No one told him what he would be able to do; instead, he was able to do what "he had a passion for." With a CEG, he had an individual budget and choices on what he wanted to do and how. He was "his own boss."

Question: In terms of access to resources and information available through the multiple systems that support an individual with a disability, are you familiar with what resources and services are available within your community, and, if so, are you able to access them? In your experience, do the multiple agencies that support the employment needs of an individual with a disability work well together? If this is a barrier, what strategies have you used to overcome it, that is, to learn about what resources are available and to then access and use the resources in some coordinated way?

Lack of knowledge and responsive resources. The certified rehabilitation counselor from Iowa shared that as a benefits planner (which is part of her responsibility as a rehab counselor), one is exposed to and learns about different resources. As a result, when a counselor works with individuals on their benefits planning, the counselor not only provides guidance on work incentives but also connects them to the resources he or she has identified that can provide them with needed supports and services. In general, however, a barrier identified by several participants is that in business plan development, market analysis, and internal revenue issues, there are no professionals within these fields who are experts in assisting Social Security disability beneficiaries (Supplemental Security Income [SSI] and Social Security Disability Insurance [SSDI])¹³⁹ with self-employment. Some participants feel that the typical reaction by these professionals is surprise that an individual with a disability can be receiving disability benefits and also produce

revenue. Instead of being able to access and utilize local resources, individuals with disabilities often need to turn to support from groups like Griffin-Hammis Associates, LLC, for support and guidance.

Lack of agency coordination. The representative from Oregon, who recently started a business after going through a two-year process, shared that she experienced issues with several agencies that were not coordinated when she moved from a larger city to a more rural area in the state. When she had an idea of what she wanted to do, she contacted VR and quickly learned that they were not clear what their policies were regarding self-employment, that is, what was allowed, the amount of monetary support available, and so on. She then found out that she could qualify for the work incentive, known as Plan to Achieve Self-Support (PASS),¹⁴⁰ through the Social Security Administration, which allows an individual with a disability to set aside money to pay for items or services needed to achieve a specific work goal. She applied for PASS and was notified by VR that they would not finish the self-employment plan until the PASS was approved, which is the reverse of how the process is supposed to work. At the same time, the local community college had been charged with conducting business plan reviews; however, in the middle of the review of her plan, it was decided that the community college was not a good source to provide feedback on the business plans. Other than her positive experience working with Social Security to develop a PASS plan, she did not feel there was a set protocol on how to assist individuals with this employment option. Though VR provided her with a list of different programs/agencies that she should contact, she did not feel VR had a clear picture of what their own level of guidance and support should be to assist individuals with this employment option.

The benefit planner from Oregon added that VR policy in Oregon regarding self-employment is very broad. The downside is that there is not a lot of clear direction for counselors. As a result, she has seen that policy across the state varies as to what is required of an individual in the process of pursuing self-employment. On the other hand, there is no dollar limit on what an individual can invest in a self-employment plan (this is not the case in every state), which allows it to become a person-specific plan "once you get to that point." However, she does agree that the process takes a lot of time. The capability of local small business development centers and the local business consultants to know and understand the dynamics involved with individuals who have a disability who are pursuing self-employment varies across the state.

Question: If you were a decision maker and could change any policy within the Social Security Administration related to benefits, eligibility, work incentives, etc., what would you like to see changed?

Access to health care and increased income threshold. The representative from Cobb Douglas County shared that it would be helpful if Georgia would choose to become a Medicaid Buy-In¹⁴¹ state. The Medicaid Buy-In program makes it easier for individuals with disabilities to work without losing health benefits. The absence of this option impacts the ability of Social Security disability beneficiaries to pursue self-employment while retaining necessary medical coverage. The certified rehabilitation specialist from Iowa concurred and shared that she works with individuals who receive \$1,500 through SSDI and she has to make them aware of the limits that pertain to substantial gainful activity (SGA).¹⁴² To be eligible to receive disability benefits, an individual must be unable to engage in SGA, that is, must not earn more than a certain monthly amount. To comply with SGA and also have a meaningful work experience, individuals feel that their "hands are tied" if they have to give up their benefits to comply with SGA. Iowa is a Medicaid Buy-In state and the buy-in has made a tremendous transformation in an individual's willingness to work. In Iowa, it is viewed as a model and liberal program in that an individual can work just two hours a month and still be eligible to receive Medicaid coverage. Her recommendation would be to increase SGA and look to states that have implemented model programs such as the Iowa Medicaid Buy-In, which is making a difference in the ability of an individual with a disability to seek and maintain employment while retaining needed benefits.

Flexibility of work incentives to accommodate self-employment needs. The benefit planner from Oregon suggested either extending the current maximum 36-month limit of self-employment goal and PASS (PASS for non-self-employment goals has no time limit) or doing away with time limits all together. Providing flexibility with the time limit would take into account that unforeseen barriers may arise and/or the originally planned goal may not come together as smoothly as intended and more time may be needed to address the barriers and/or revise the goal while the business is still viable. The certified rehabilitation counselor followed up by saying that it is unclear why policymakers do not keep at the forefront that SSI and SSDI beneficiaries, just like anyone who starts a business, can experience relapses and encounter unexpected variables. This does not mean that the plan and business is not successful but rather that it requires some adjustments along the way. The entrepreneur from Georgia suggested that one of the things that does not seem to be taken into consideration is that for any business-no matter whose it is-it takes at least five years to determine whether or not the business is going to be successful; another reason the 36-month time limit for self-employment is unrealistic. Participants expressed that the issue is not only the 36-month time limit but also the fact that once a business starts to make up to SGA, the file is closed in VR and supports are pulled. Another recommendation, then, is the ability to tap into resources beyond reaching the PASS goal and fulfilling the self-employment plan.

Knowledgeable and receptive professionals. The benefits planner in Iowa suggested that it would make a tremendous impact if every SSA local field office had at least one claims representative who understood self-employment. The field offices do not understand all the costs involved with self-employment, and tend to count as income money that should be viewed as funds necessary to cover expenses. Another representative shared that it would be good if representatives within any government office—SSA, VR—admitted they do not understand entrepreneurship and its policies but promised to trust and honor the beneficiary. Another participant suggested that SSA offer a field office position like this to a successful entrepreneur with a disability.

Question: Did SSA's implementation of the Benefits Planning, Assistance and Outreach (BPAO)¹⁴³ program, which is now referred to as the Work Incentives Planning and Assistance (WIPA) program, address many of the concerns that have been raised, or does it have issues as well?

Several of the participants either are or were benefits planners with the BPAO program (now known as WIPA) and feel that implementation of benefits planning specialists is "an" answer. However, beneficiaries still are directed to and utilize the services of SSA field offices, and they need to be able to find someone there who is "informed" and "receptive." The benefits planner from Oregon suggested that not enough specialists are available to adequately reach out to and address the needs of Social Security disability beneficiaries. For example, she is one of three benefits planners who cover the entire state, assisting beneficiaries in general. Assisting an individual with self-employment is a somewhat more involved process and requires a higher level of knowledge. The BPAO/WIPA program should clarify the expectation for having benefit planners be involved in the self-employment process. From her experience, individuals who pursue self-employment as an option need more than just their questions answered; they also need assistance walking through the process (i.e., applying for a PASS, reporting self-employment income to Social Security).

Question: In addition to the other federal programs (Social Security and VR) that were discussed, from your experience are individuals with disabilities accessing and receiving technical assistance from the system of centers that are part of the Small Business Administration (SBA), including Small Business Development Centers¹⁴⁴ and Women's Business Centers?¹⁴⁵ None of the participants indicated having positive experiences utilizing identified resources, which some suggested "did not seem receptive to working with people with disabilities"; however, several of the participants reported that they accessed a program called Service Corps of Retired Executives (SCORE) Counselors to America's Small Business,146 which is a resource partner of the SBA that provides small business advice for entrepreneurs. In Georgia the connection with SCORE was one of the other policies that VR changed. Initially, there was a very restrictive process for approval of self-employment business plans. The policy was changed so that SCORE could be one of the entities to approve the plans. One of the entrepreneurs from Georgia had his business plan approved with SCORE. The entrepreneur from Oregon shared that she has experience working with the local chamber of commerce. The representatives from Georgia shared that they have a very good relationship working with their local Microenterprise Center,147 which serves as a very good resource for gaining assistance in business planning.

Question: An individual has a concept, a business plan, and has received assistance from one or more agencies on self-employment. Where is he or she finding the financial resources to get the business up and running, that is, access to capital?

In Iowa, the certified rehabilitation counselor said that VR has a program called First Step,¹⁴⁸ in which participants may receive financial assistance up to \$2,500 with an approved business plan, and no owner investment is required. The First Step Program approves specific expenses related to business start-up and then pays the vendor directly. While this program offers financial assistance, it does not offer any technical assistance or follow-along services, which is what an entrepreneur needs once a business is up and running. Some entrepreneurs also need cash flow assistance. The entrepreneur in Iowa shared that she could not locate any programs to provide this type of assistance. She eventually was able to put SSDI funds and earnings into an approved PASS plan to help her expand the business. Unfortunately, she is now being audited by the Internal Revenue Service (IRS) for that year. The IRS is questioning why she had so much extra capital.

Access to capital resources is not the same from state to state. For example, the entrepreneur's representative in Kansas shared that the Kansas Developmental Disabilities Council provides grant funds up to \$20,000 for business start-up assistance for individuals with disabilities. His son applied and was awarded a grant of \$9,000, which he used to purchase his initial equipment

for the Kettle Corn business. In addition, through an approved PASS plan, his son used funds to acquire his raw materials and then through VR received the necessary computer equipment to support the business. In Georgia, they use traditional funding sources through VR, but also access funding sources through nontraditional entities such as unions and churches and even created a community partnership with Barnes & Noble. The Cobb Douglas County Community Services Board serves as a resource and provides no-cost loans. In addition, individuals in Georgia have also accessed funds through Individual Development Accounts (IDAs)¹⁴⁹ as they are available. IDAs represent special savings accounts designed to help people build assets. IDA participants save their own dollars in these accounts for a specified period of time. After reaching their individual savings goal, they receive matching funds to be used for a specific purpose.

Question: What suggestions do you have to ensure that youth with disabilities in transition are more involved in and/or aware of self-employment as a possible employment option?

This should be part of outreach and discussions that professionals have with parents of youth with disabilities. Representatives from Cobb Douglas County have worked closely with the school system during their annual education series on options that are available when a youth leaves high school. They also have worked to educate family groups on contributing toward the pool of dollars for a youth with a disability. They suggest that this can be a very powerful component in convincing VR and other traditional funding sources to add to the pot for the individual to achieve his or her employment goal. From a parent's perspective, the representative from Kansas shared that there was no knowledge base about this employment option in the school system and no one was aware that it even was a possibility. Instead, through seeking out information on their own and wanting more opportunities for their son, they learned about self-employment as an option outside of the school system through Partners in Policy Making and Griffin-Hammis Associates.

Question: Are there any other suggestions that you would like to make that would help promote and sustain employment for people with disabilities?

More intensive assistance and supports with the business plan process. In Oregon, the entrepreneur said that there did not seem to be much of an assessment process. For her, it seemed that as long as she was able to write a business plan then VR felt she was able to run a business, which she does not necessarily feel is true in all cases. There did not seem to be access to additional resources or services to assist her in this endeavor. Therefore, VR should be more invested in assessing what an individual actually can do and what he or she needs to get started in a selfemployment plan. Further, VR should offer ongoing support. Some participants felt that longterm government employees may not fully understand the entrepreneurial mindset and, therefore, may be unable to do an appropriate assessment. In Georgia, the experience was different in terms of assessment in that it was initially felt if the individual with a disability was not capable of performing every aspect of the business, then that person was not capable of creating the business. The reality is with any start-up business venture, owners typically are unable to perform every function and plan to factor out areas of the business that is not their area of expertise.

Knowledgeable professionals on self-employment for individuals with disabilities. Participants feel there is a lot of misunderstanding by the people in the programs that an individual with a disability needs to access for supports and services to develop and then run a business (e.g., VR, SSA, and the IRS) regarding how to account for income and expenses related to self-employment.

Removing barriers to make self-employment a more viable option. It seems that for those who know about the self-employment option, there might be deterrents to pursuing it given the process and the hurdles one has to go through, as well as the impact it may have on receipt of benefits. The Georgia entrepreneur shared that because of asset limits and income restrictions, he is unable to save for retirement or any long-term care because he will lose his health insurance and other benefits. Another participant said that all Americans are told to set aside emergency funds; however, in the current system, individuals with disabilities do not have this option. For individuals with a disability who do not fit in a traditional employment model, self-employment does provide them with an employment opportunity. As a representative from Cobb Douglas County shared: "It can be the answer to a nightmare that they [the individuals with a disability] have lived through for many years."

* * * * *

In summary, the focus group participants identified some of the policy barriers that are specific to individuals with a disability who select self-employment. One recommendation is the need for better systems coordination highlighting the inability to access accurate information and to even network among people who have good information, assuming that they even exist. There is a real challenge in terms of access to people who are knowledgeable about rules and benefits and business planning and development and this is true even within Social Security field offices or in the PASS Cadre (SSA benefits planners who are trained to work with a PASS). In spite of the

opportunities that self-employment offers to many individuals who might not otherwise benefit from a traditional job, asset and income limits have a major impact on the ability to grow, access needed health care, and save for emergency purposes, retirement, or long-term care. Pursuing self-employment leaves an individual with numerous challenges if he or she is an SSI and SSDI beneficiary staying below the SGA level. Supports need to be ongoing even after a business is up and running. Implementing BPAO/WIPA projects has been a significant move forward by SSA in addressing some of the issues and barriers faced by individuals with disabilities in terms of accessing work incentives and understanding how their benefits will be impacted by employment; however, that still does not fully meet the need. Without access to capital a business owner's opportunity may be limited.

In closing, the participants agreed that it is really important to keep self-employment as an option for individuals with disabilities. One participant expressed that the ability to use this option, and the flexibility it provides, gives her a greater knowledge base that she would not have had with a traditional job.

SSA Community Work Incentives Coordinators and DOL-SSA Disability Program Navigators Focus Group

The Employment Study Community Work Incentives Coordinator (CWIC) and Disability Program Navigator (DPN) Focus Group was hosted via a 90-minute audioconference call on November 17, 2006. Representatives from the Law, Health Policy & Disability Center (LHPDC) of the University of Iowa College of Law identified key individuals within the CWIC and DPN positions to participate in this focus group. During the focus group, participants were provided with a brief introduction to NCD and the purpose of the Employment Study, along with a list of the proposed focus group questions The facilitator for the CWIC and DPN Focus Group was Michael Morris, the Director of the National Disability Institute and interim co-Director of LHPDC. Mr. Morris began the focus group discussion by sharing with the participants that the focus group represented an opportunity to have an open conversation about the challenges and opportunities related to employment for individuals with disabilities. He began by using the proposed questions but allowed the participants to drive the dialogue and selection of questions.

CWIC and DPN Focus Group participants: The list of invited focus group participants included four DPNs, from Colorado, Delaware, New York, and Iowa, and three CWICs, from Colorado, New York, and Iowa. In two of the represented states the DPN and the CWIC had experience

working together in coordinating marketing and outreach efforts and providing supports to job seekers with disabilities in their local communities. In addition, the DPN from New York serves in the capacity of a part-time CWIC. Focus group members from both urban and rural workforce areas were represented.

Highlights from the CWIC and DPN Focus Group

Question: What are policy barriers to the hiring, retention, and recruitment of workers with disabilities?

Terminology used by disability agencies was identified as a barrier. One example given by a DPN was that employers do not understand the similarities between offering flextime to workers without disabilities and offering this same type of accommodation to job seekers with disabilities. The bureaucratic nature of the language used by disability agencies when approaching employers about hiring qualified applicants with disabilities is not well received, or even understood, by the employer community.

Multiple members of the focus group identified lack of flexibility on the part of the Social Security Administration (SSA) as a barrier. SSA does not respond to or encourage employment for beneficiaries with disabilities, especially those who experience sporadic and varied employment as a result of the nature of their disability(ies). Fear still exists regarding the loss of cash benefits and long-term medical benefits that returning to work can trigger. This was noted as being particularly true in the case of cash benefits for those receiving SSI because of the \$2,000 resource limit¹⁵⁰ participants of that program must stay below in order to maintain benefits. The DPN from Delaware referenced the lack of a Medicaid Buy-In¹⁵¹ in his state as pivotal in limiting the employment choices his clients can make. "I have worked with so many who rely on the Medicaid program, but as soon as they want to work full-time, and give up all of the things Medicaid covers, which puts most of the costs back on them, it's just not a good trade-off." The combination of these issues creates ongoing disincentives for this population to return to work.

DPNs and CWICs agreed that policy barriers exist within the eligibility criteria for employment training programs offered through the One-Stop Career Centers.¹⁵² It was stated that the strict criteria for programs such as WIA¹⁵³ seem to exclude people with disabilities who receive SSI and/or SSDI¹⁵⁴ benefits. "WIA policy can become a barrier because of the performance measures of these programs . . . whether it be the Youth or Adult programs, with the performance measures it creates dilemmas for Workforce (aka One-Stop) staff in terms of who they bring in to serve."

Question: What are your suggestions to improve interagency coordination?

The DPN Initiative already is assisting in improving interagency coordination. The CWIC from New York shared that "I almost think the Navigator created, by virtue of the position, better interagency coordination for people with disabilities that come in. . . . Having someone here to continue to represent people with disabilities in the One-Stop is going to be important in the future."

Social Security staff should be at the table working on interagency coordination at the local level. The DPN from Colorado shared that, in her experience, staffing shortages within SSA local offices keeps SSA representatives in their offices when they should be more actively involved in their local communities working on issues such as interagency coordination.

The prevailing view is that almost all programs that people with disabilities can access to move them toward their employment goals are considered "dollars of last resort." This makes it difficult for individuals with disabilities, or those working on their behalf, to coordinate the necessary resources across multiple programs and/or agencies to gain increased employment opportunities that result in successful employment outcomes.

Processes and mechanisms for accessing and sharing information within the variety of employment programs between agencies should be created. An example provided by the DPN in Delaware (who also has served in the position of benefits planner through the Benefits Planning, Assistance and Outreach Program (BPAO)¹⁵⁵ program, a precursor to the CWIC) was his difficulty in accessing information as basic as ascertaining whether a client was receiving SSI, SSDI, or both through the Benefits Planning Query Form.¹⁵⁶ Information sharing would include agreed-upon operational definitions, such as what constitutes a disability. This information should be consistent across all disability programs such as those provided by the Rehabilitation Services Administration and SSA. In addition, terminology in various disability program applications should be changed to reflect a more positive focus on employment. An example provided by the CWIC in Iowa was "Change the application for Social Security benefits to better define that we are talking about 'people who cannot work above SGA,'¹⁵⁷ rather than 'people who cannot work.'"

Question: What are your suggestions for improvement in accessing longterm supports? Work incentives? Or access to transportation?

Focus group participants agreed on the benefits of DPNs and CWICs working together. Increasing training for DPNs on work incentives would bridge the current gap of knowledge to better identify and serve prior clients with a referral to the CWIC who can then deal with the more technical aspects of their individual case. This was a suggestion from the CWIC from New York, who is also a DPN. The CWIC from Colorado shared that in the past four years he has worked as a BPAO coordinator. and during that time has worked closely with the DPN. He recommended bringing the DPN back to working with clients one on one. Because of the high turnover rate in the local area in Colorado, training One-Stop staff on disability resources and how to serve individuals with disabilities leaves many clients falling through the cracks in the system. He also recommended implementing a gradual reduction of benefits for SSDI recipients who return to work. SSA, in a number of states, is currently piloting this concept.¹⁵⁸

Question: How can SSA rules, policies, and practices be improved?

The focus group weighed in on SSA's need to simplify the process around returning to work. The DPN from Iowa suggested that incorporating work as an allowance for applicants with disabilities right from the start would prevent people from being sidetracked into unemployment. In addition, there is a need for SSA to offer longer-term support for those employed individuals with disabilities who need it, rather than looking for cessation of benefits as the end goal for all recipients. She offered, "Through the SSA Advisory groups that are being held they [SSA] are very well aware of what rules, policies and practices need to be changed. The problem is getting changes made in a timely fashion."

SSA might not have the right culture and might not be the right entity to support employment for people with disabilities as they are more focused on the medical model of disability. The CWIC from New York offered that, "Much like the Ticket to Work,¹⁵⁹ it was SSA's baby, but Maximus¹⁶⁰ had to manage it. There are a lot of opinions about that program at this time, some not so positive, but I think it is best run outside of SSA. I don't think they are the organization to encourage people to return to work." Other focus group participants seconded this opinion. It was discussed within the group that the Department of Labor might potentially be the proper authority to take over the employment focus for this targeted population. In the meantime, there is a need to increase the level of education SSA staff receive on work incentives.

SSA rule change recommendations from the focus group included eliminating the two-year waiting period for SSDI recipients to begin receiving Medicare; making work incentives consistent across all populations (i.e., work incentives should not be different for individuals who are

blind¹⁶¹); allowing savings into retirement accounts and 401(k) accounts as a component of the Ticket to Work program; resolving the conflict between Social Security resource limits and continued Medicaid eligibility under 1619(b)¹⁶²; and introducing gradual reductions in benefits for individuals returning to work. The DPNs and CWICs felt that the enactment of the abovementioned rule changes would increase the self-sufficiency of individuals with disabilities currently receiving Social Security benefits.

Question: How can employer relationships be strengthened and enhanced?

The DPN provides a local contact for area businesses to access information on the ADA and disability-related resources. This was cited as one way in which employer relationships are being strengthened. In order to build on that connection, outreach and marketing efforts targeting employers should be increased. Multiple focus group participants identified the DPN as the logical entity to provide continued education and awareness building in the employer community. The DPN from Delaware stated, "As far as employer relationships and policy changes, I really don't think it is a policy change. I think it is an attitude adjustment. We are still working with employers on the fact that it [hiring people with disabilities] isn't going to cost more. It isn't a workman's compensation case waiting to happen." Educating employers is an ongoing process. The DPN in Colorado suggested instituting a disability-preference program in the One-Stop Centers similar to veterans' preference.¹⁶³ This would give job seekers with disabilities a competitive edge by providing additional employment supports such as access to job postings one day prior to when this same information is given to other job seekers without disabilities.

Question: How can transition from school to work be improved?

Performance measures for WIA Youth Programs could be different, or lightened, to include and better support employment of youth with disabilities. Currently One-Stop staff look carefully at these measurements prior to deciding who can come into the program and achieve a successful employment outcome that will count positively toward the center's numbers and continued funding. This often results in the exclusion of youth with disabilities from this program. The DPN from Iowa commented on what she considered to be excellent Youth Transition Grant waivers¹⁶⁴ for youth with disabilities. Her examples included Student Earned Income,¹⁶⁵ extending the age 18 eligibility redetermination,¹⁶⁶ and career exploration under the PASS Plan.¹⁶⁷ The CWIC from New York offered, "Looking into an Individual Development Account [IDA¹⁶⁸] would be better than looking at a PASS plan because a PASS for a student will not gain them anything through an increased SSI check." The CWIC from Iowa countered, "But with the youth if you have a student who starts a PASS at 16 or 17, they should be able to start saving, even if they don't know what they want to do, perhaps saving for college. Unfortunately we don't have a lot of IDA accounts in Iowa."

Question: How are DPNs and CWICS changing employment opportunities?

DPNs make a difference by being the go-to person for service providers who can access information and resources. It is important for job seekers with disabilities to have someone on the local level working with them one-on-one, even if it is on a limited basis. According to the CWIC from New York, "The DPNs have become a voice for people with disabilities in the One-Stop." More individuals with disabilities are accessing the services of the One-Stop Centers and these numbers are now being captured in a way that they were not previously. The DPN from Iowa added, "DPNs are the focal point covering education, problem solving, and building pathways for job seekers with disabilities and employers. Without the DPNs I would see that as a huge barrier."

CWICs work closely with the DPNs, correcting misconceptions about how benefits will be affected by work, for both employers and job seekers with disabilities. This results in increased employment opportunities for SSDI and SSI recipients.

Question: Do you have any other comments?

Self-employment and asset development need to be developed further and promoted as viable options for individuals with disabilities. This could include a lower level of microenterprise and increased education on all levels.

A higher level of flexibility across agencies, to blend and braid funding and share resources specific to the individual job seeker, needs to be a priority in order for people with disabilities to achieve successful employment outcomes.

* * * * *

In summary, the focus group participants identified some of the policy and systemic barriers they have encountered through their work and suggested ways in which these policies and systems could be improved. SSA rule change recommendations from the focus group included the following: eliminating the two-year waiting period for SSDI recipients to begin receiving Medicare; making work incentives consistent across all populations (i.e., work incentives should not be different for individuals who are blind); allowing savings into retirement accounts and 401(k) accounts as a component of the Ticket to Work program; resolving the conflict between Social Security resource limits and continued Medicaid eligibility under 1619(b)¹⁶⁹; and introducing gradual reductions in benefits for individuals returning to work. In terms of supporting employment for individuals with disabilities, the Department of Labor was identified as a potentially stronger candidate than SSA in succeeding in this endeavor. It was reiterated throughout the focus group how important the roles of the DPN and CWIC are in implementing systems change through increasing access and coordination of services within the One-Stop Career Centers and other federal, state, and local programs that benefit job seekers with disabilities and employers.

Appendix F: Mission of the National Council on Disability

Overview and purpose

The National Council on Disability (NCD) is an independent federal agency with 15 members appointed by the President of the United States and confirmed by the U.S. Senate. The purpose of NCD is to promote policies, programs, practices, and procedures that guarantee equal opportunity for all individuals with disabilities regardless of the nature or significance of the disability and to empower individuals with disabilities to achieve economic self-sufficiency, independent living, and inclusion and integration into all aspects of society.

Specific duties

The current statutory mandate of NCD includes the following:

- Reviewing and evaluating, on a continuing basis, policies, programs, practices, and procedures concerning individuals with disabilities conducted or assisted by federal departments and agencies, including programs established or assisted under the Rehabilitation Act of 1973, as amended, or under the Developmental Disabilities Assistance and Bill of Rights Act, as well as all statutes and regulations pertaining to federal programs that assist such individuals with disabilities, to assess the effectiveness of such policies, programs, practices, procedures, statutes, and regulations in meeting the needs of individuals with disabilities.
- Reviewing and evaluating, on a continuing basis, new and emerging disability policy issues affecting individuals with disabilities in the Federal Government, at the state and local government levels, and in the private sector, including the need for and coordination of adult services, access to personal assistance services, school reform efforts and the impact of such efforts on individuals with disabilities, access to health care, and policies that act as disincentives for individuals to seek and retain employment.
- Making recommendations to the President, Congress, the Secretary of Education, the director of the National Institute on Disability and Rehabilitation Research, and other officials of federal agencies about ways to better promote equal opportunity, economic self-sufficiency, independent living, and inclusion and integration into all aspects of society for Americans with disabilities.

- Providing Congress, on a continuing basis, with advice, recommendations, legislative proposals, and any additional information that NCD or Congress deems appropriate.
- Gathering information about the implementation, effectiveness, and impact of the Americans with Disabilities Act of 1990 (ADA) (42 U.S.C. § 12101 et seq.).
- Advising the President, Congress, the commissioner of the Rehabilitation Services Administration, the assistant secretary for Special Education and Rehabilitative Services within the Department of Education, and the director of the National Institute on Disability and Rehabilitation Research on the development of the programs to be carried out under the Rehabilitation Act of 1973, as amended.
- Providing advice to the commissioner of the Rehabilitation Services Administration with respect to the policies and conduct of the administration.
- Making recommendations to the director of the National Institute on Disability and Rehabilitation Research on ways to improve research, service, administration, and the collection, dissemination, and implementation of research findings affecting people with disabilities.
- Providing advice regarding priorities for the activities of the Interagency Disability Coordinating Council and reviewing the recommendations of this council for legislative and administrative changes to ensure that such recommendations are consistent with NCD's purpose of promoting the full integration, independence, and productivity of individuals with disabilities.
- Preparing and submitting to the President and Congress an annual report titled *National Disability Policy: A Progress Report.*

International

In 1995, NCD was designated by the Department of State to be the U.S. government's official contact point for disability issues. Specifically, NCD interacts with the special rapporteur of the United Nations Commission for Social Development on disability matters.

Consumers served and current activities

Although many government agencies deal with issues and programs affecting people with disabilities, NCD is the only federal agency charged with addressing, analyzing, and making recommendations on issues of public policy that affect people with disabilities regardless of age, disability type, perceived employment potential, economic need, specific functional abil-

ity, veteran status, or other individual circumstance. NCD recognizes its unique opportunity to facilitate independent living, community integration, and employment opportunities for people with disabilities by ensuring an informed and coordinated approach to addressing the concerns of people with disabilities and eliminating barriers to their active participation in community and family life.

NCD plays a major role in developing disability policy in America. In fact, NCD originally proposed what eventually became ADA. NCD's present list of key issues includes improving personal assistance services, promoting health care reform, including students with disabilities in high-quality programs in typical neighborhood schools, promoting equal employment and community housing opportunities, monitoring the implementation of ADA, improving assistive technology, and ensuring that people with disabilities who are members of diverse cultures fully participate in society.

Statutory history

NCD was established in 1978 as an advisory board within the Department of Education (P.L. 95-602). The Rehabilitation Act Amendments of 1984 (P.L. 98-221) transformed NCD into an independent agency.

Bibliography¹

- Abascal, J. (2002). *Human-computer interaction in assistive technology: From "patchwork" to "universal design.*" Paper presented at the 2002 IEEE International Conference on Systems, Man and Cybernetics.
- Abascal, J., & Nicolle, C. (2005). Moving towards inclusive design guidelines for socially and ethically aware HCI. *Interacting Computers* 17: 484.
- Adaptive Environments. (2003). *History of universal design*. Retrieved June 27, 2007 from http://www.adaptenv.org/index.php?option=Content&Itemid=26
- Adya, M. (2004). *Genetic information use in hiring decisions: Psycho-legal possibilities arising from the Human Genome Project*. Unpublished doctoral dissertation, University of Nebraska-Lincoln, Nebraska.
- Adya, M., & Bornstein, B. H. (2005). Genetic discrimination in employment: Psycho-legal possibilities arising from the human genome project. *William Mitchell Law Review* 32: 265–88.
- Aetna. (2004). Aetna offers Employee Assistance Program alongside long term disability insurance plans. Retrieved July 27, 2006, from http://www.aetna.com/news/2006/pr_20060524.htm
- Akabas, S. H., & Gates, L. B. (2002). The role of Employee Assistance Programs in supporting workers with mental health conditions. *New York Work Exchange: A project of the Coalition of Voluntary Mental Health Agencies*. Retrieved July 27, 2006, from http://www.cvmha.org/ccrr/ projects/eap-report.pdf
- Aldrich, H. (1999). Organizations evolving. London: Sage.
- Alliance Project. (1999). Gender as a factor in special education eligibility, services, and results (July 1999). Alliance Project, Vanderbilt University. Retrieved June 27, 2007 from http://www.alliance2k.org/products/4009.pdf
- American Foundation for the Blind. (2006). *National Centers to Develop the National Instructional Materials Accessibility Standard (NIMAS)*. Retrieved June 27, 2007 from http://www. afb.org/Section.asp?SectionID=58&TopicID=255&DocumentID=2780
- American Public Transportation Association (APTA). (2005). *Public transportation fact book* (56th ed.). Washington, DC: American Public Transportation Association.
- Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. (2004). Organizations and the intersection of work and family: A comparative perspective. In P. Thompson, S. Ackroyd, P. Tolbert,

& R. Batt, *The Oxford Handbook on Work and Organizations*, 52–73. London: Oxford University Press.

Armstrong, L. (2005, July 25). Remodeling for the future. Business Week, 104.

- Arnold, N. L., & Ipsen, C. (2005). Self-employment policies: Changes through the decade. *Journal of Disability Policy Studies* 16 (2): 115–22.
- Association of Programs for Rural Independent Living. (2005). *National demonstration of rural employment transportation voucher model: "Placing control in our hands." Project Report Year Three*. Retrieved July 26, 2005, from http://www.april.rural.org/docs/transreportyear3.html
- Association on Higher Education and Disability. (2005). *Leadership institute on universal design*. Retrieved June 27, 2007 from http://www.ahead.org/training/online/udinstitute.htm
- Baldwin, M. L., & Johnson, W. G. (2006). A critical review of studies of discrimination against workers with disabilities. In W. M. Rodgers III (Ed.), *Handbook on the economics of discrimination*. Northampton, MA: Edgar Elgar Publishing
- Baldwin, M., & Schumacher, E. (2002). A note on job mobility among workers with disabilities. *Industrial Relations* 41 (3): 430–41.
- Ball, P., Monaco, G., Schmeling, J., Schartz, H., & Blanck, P. (2005). Disability as diversity in Fortune 100 companies. *Behavioral Sciences and the Law* 23 (1): 97–121.
- Bar, L., & Galluzzo, J. (1999). *The accessible school: Universal design for educational settings*.Berkley, CA: MIG Communications.
- Barcus, J. M., & Targett, P. (2001). Workplace personal assistance services: Employers perspective. In Turner, E., Revell, G., & Brooke, V. (Eds.). Personal Assistance in the Workplace: A Customer-Directed Guide Manual. Rehabilitation Research and Training Center on Workplace Supports, Virginia Commonwealth University, available at http://www.worksupport. com/resources/viewContent.cfm/136
- Barr, M. A., & Hitt, M. A. (1986). A comparison of selection decision models in manager versus student samples. *Personnel Psychology* 39: 599–617.
- Baska, L., et al. (2003). The Community Transition Program: Experiences starting a community-based program for students ages 18–21. Department of Special Education, University of Kansas. Retrieved June 27, 2007 from http://raven.cc.ku.edu/~tcacs/new/ files/47365_FINAL_WEB.pdf
- Batheja, A. (2006). New gadgets help blind, but at a cost. *Star Telegram*. Retrieved July 27, 2006, from http://www.dfw.com/mld/dfw/business/14961060.htm+

- Beecher, V., & Paquet, V. (2005). Survey instrument for the universal design of consumer products. *Applied Ergonomics* 36: 363, 369.
- Bell, B. S., & Klein, K. J. (2001). Effects of disability, gender, and job level on ratings of job applicants. *Rehabilitation Psychology* 46: 229–46.
- Benz, M. R., et al. (2000). Improving graduation and employment outcomes of students with disabilities: Predictive factors and student perspectives. *Exceptional Children* 66: 509, 516–27.
- Berkowitz, M., & Dean, D. (1998). Facilitating employment through Vocational Rehabilitation. In T. Thomason, J. F. Burton Jr., & D. E. Hyatt (Eds.), *New approaches to disability in the work-place*. Madison, WI: Industrial Relations Research Association.
- Berkowitz, M., O'Leary, P. K., Kruse, D. L., & Harvey, C. (1998). *Spinal cord injury: An analysis of medical and social costs.* New York: Demos Publishing.
- Bernier, B., & Seekins, T. (1999). Rural Transportation Voucher Program for people with disabilities: Three case studies. *Journal of Transportation and Statistics* (May).
- Blanck, P. (1994). Communicating the Americans with Disabilities Act: Transcending compliance—A case report on Sears Roebuck & Co. Washington, DC: Annenberg Washington Program in Communications Policy Studies, Northwestern University.
- Blanck, P. (1996). Communicating the Americans with Disabilities Act: Transcending compliance—1996 follow-up report on Sears Roebuck & Co. Washington, DC: Annenberg Washington Program in Communications Policy Studies, Northwestern University.
- Blanck, P., Hill, E., Siegal, C., & Waterstone, M. (2003). *Disability civil rights law and policy*. St. Paul, MN: Thomson/West Publishers.
- Blanck, P., Hill, E., Siegal, C., & Waterstone, M. (2005). *Disability civil rights law and policy: Cases and materials*. St. Paul, MN: Thomson/West Publishers.
- Blanck, P., Hill, E., Siegal, C., Waterstone, M., & Myhill, W. (2006). *Disability civil rights law and policy: Cases and materials.* Supp. to the 1st ed. St. Paul, MN: Thomson/West Publishers.
- Blanck, P. D., & Marti, M. W. (1997). Attitudes, behavior, and the employment provisions of the Americans with Disabilities Act. *Villanova Law Review* 42: 345–410.
- Blanck, P., Sandler, L., Schmeling, J., & Schartz, H. (2000). The emerging workforce of entrepreneurs with disabilities: Preliminary study of entrepreneurship in Iowa. *Iowa Law Review* 85: 1583–660.
- Blanck, P. D., Schur, L., Kruse, D., Schwochau, S., & Song, C. (2003). Calibrating the impact of ADA's employment provisions. *Stanford Law and Policy Review* 14 (2): 267–90.

- Blanck, P. D., & Steele, P. (1998). *The emerging role of the staffing industry in the employment of persons with disabilities: A case report on Manpower Inc.* University of Iowa Law, Health Policy, & Disability Center.
- Blanck, P. D., & Turner, A. N. (1987). Gestalt research: Clinical field research approaches to studying organizations. In J. Lorsch (Ed.), The handbook of organizational behavior, 109–25. New York: Prentice-Hall.
- Bond, J. T., Galinsky, E., Kim, S. S., & Bownfield, E. (2005). *2005 National study of employers*. New York: Families and Work Institute.
- Bordieri, J. E., & Drehmer, D. E. (1986). Hiring decisions for disabled workers: Looking at the cause. *Journal of Applied Social Psychology* 16: 197–208.
- Bors, P., et al. (2004). Community design: The next step to an active society? *Journal of Active Aging* (January–February).
- Bound, J., & Burkhauser, R. V. (1999). Economic analysis of transfer programs targeted on people with disabilities. In O. Ashenfelter & D. Card (Eds.), *Handbook of labor economics*, Volume 3(c). Amsterdam: Elsevier Science.
- Bound, J., & Waidmann, T. (2002). Accounting for recent declines in employment rates among working-aged men and women with disabilities. *Journal of Human Resources* 37 (2): 231–50.
- Bowe, F. G. (2000). *Universal design in education: Teaching nontraditional students*. Retrieved June 27, 2007 from http://www.udeducation.org.
- —. (2002). Deaf and hard of hearing Americans' instant messaging and email use: A national survey. *American Annals of the Deaf* 147 (4): 6–10.
- Bowman, J. (1987). Attitudes towards disabled persons: Social distance and work competence. *Journal of Rehabilitation* 53: 41–4.
- Boyle, M. A. (1997). Social barriers to successful reentry into mainstream organizational culture: Perceptions of people with disabilities. *Human Resource Development Quarterly* 8 (3) (Fall): 259–68.
- Braddock, D., & Bachelder, L. (1994). *The glass ceiling and persons with disabilities*. Washington, DC: U.S. Department of Labor, Glass Ceiling Commission.
- Bradley, C. J., Neumark, D., Luo, Z., & Bednarkek, H. L. (2005). Employment contingent health insurance, illness, and labor supply of women: Evidence from married women with breast cancer. NBER Working Paper No. 11304. Cambridge, MA: National Bureau of Economic Research.

- Brancato, C. K., & Patterson, D. J. (1999). Board diversity in U.S. corporations: Best practices for broadening the profile of corporate boards. Rep. No. 1230-99-RR. New York: The Conference Board.
- Brooks, B. M., McNeil, J. E., Rose, F. D., Greenwood, R. J., Attree, E. A., & Leadbetter, A. G. (1999). Route learning in a case of amnesia: A preliminary investigation into the efficacy of training in a virtual environment. *Neuropsychological Rehabilitation* 9 (1): 63–76.
- Brooks, B. M., & Rose, F. D. (2003). The use of virtual reality in memory rehabilitation: Current findings and future directions. *Neurorehabilitation* 18 (2): 147–57.
- Brooks, B. M., Rose, F. D., Attree, E. A., & Elliot-Square, A. (2002). An evaluation of the efficacy of training people with learning disabilities in a virtual environment. *Disability and Rehabilitation* 24 (11–12): 622–26.
- Brown, D. J., Kerr, S., & Bayon, V. (1998). The development of the virtual city: A user centered approach. *Proceedings of the 2nd European Conference on Disability, Virtual Reality and Associated Technologies*. Retrieved July 27, 2006, from http://www.icdvrat.reading.ac.uk/1998/abstracts.htm
- Bruyère, S. (2000). *Disability employment policies and practices in private and federal sector organizations*. Ithaca, NY: Cornell University, School of Industrial and Labor Relations Extension Division, Program on Employment and Disability.
- Bruyère, S., Erickson, W., & Ferrentino, J. (2003). Identity and disability in the workplace. *William and Mary Law Review* 44 (3): 1173–96.
- Bryson, S. (1996). Virtual reality in scientific visualization. *Communications of the ACM* 39 (5): 62–71.
- Bühler, C. (2001). Empowered participation of users with disabilities in R&D projects. *International Journal of Human-Computer Studies* 55.
- Bureau of Labor Statistics (BLS). (1996). 1995 survey of employer-provided training— Employee results. News Release, USDL 96-515, December 19. U.S. Bureau of Labor Statistics.
- Bureau of Transportation Statistics. (2003, October). *America on the go: Findings from the National Household Travel Survey*. Washington, DC: Department of Transportation.
- Burgstahler, S., et al. (2004). Making distance learning courses accessible to students and instructors with disabilities: A case study. *Internet & Higher Education* 7: 233-46.

- Burkhauser, R. V., & Stapleton, D. C. (2003). *Introduction*. In D. C. Stapleton & R. V.Burkhauser (Eds.), *The decline in employment of people with disabilities*. Kalamazoo, MI: Upjohn Institute for Employment Research.
- Butler, R. J., Johnson, W. G., & Baldwin, M. L. (1995). Managing work disability: Why first return to work is not a measure of success. *Industrial and Labor Relations Review* 48 (3): 452–69.
- Cantor, A. (1998). Disability in the workplace: Effective and cost-effective accommodation planning. *NATCON 1998 Conference proceedings*. Toronto.
- Casey Family Programs. (2006). It's my life: Postsecondary education and training. Retrieved June 27, 2007 from http://www.casey.org/NR/rdonlyres/92960D67-DDA4-4E50-9E4F-D52315D55D45/746/CaseyPostSecondaryGuide021306.pdf
- Casper, B., & Leuchovius, D. (2005, April). Universal design for learning and the transition to a more challenging academic curriculum: Making it in middle school and beyond. *Parent Brief.* Retrieved June 27, 2007 from http://www.ncset.org/publications/parent/NCSETParent_ Apr05.pdf
- CEN/CENELEC. (2002). *Guide 6: Guidelines for standards developers to address the needs of older persons and persons with disabilities*. Retrieved June 27, 2007 from http://www. cenorm.org/boss/supporting/guidance+documents/gd+-+mechanism+on+the+use+of+guide+ 6/cclcgd006.pdf
- Center for Accessible Housing. (1992). *Recommendations for accessibility standards for children's environments: Task Five technical report* (EC 302476, ED 363 026). North Carolina State University. Retrieved June 27, 2007 from http://www.eric.ed.gov/ERICDocs/data/ ericdocs2/content_storage_01/000000b/80/23/3f/82.pdf
- Center for Applied Special Technology. (2006). *Current offerings*. Retrieved June 27, 2007 from http://www.cast.org/pd/institute/index.html
- Center for Change in Transition Services (CCTS). (2005). Post-school status report: 2004 special education graduates 4 (July). CCTS, Seattle University. Retrieved June 27, 2007 from http://www.seattleu.edu/ccts/docs/2004%20Postschool%20Data%20Report.pdf
- Center for Inclusive Design and Environmental Access. (2005). *Projects*. State University of New York, Buffalo. Retrieved June 27, 2007 from http://www.ap.buffalo.edu/idea/Projects/ index.asp

- Center for Universal Design. (2006a). *About UD: Universal design principles*. North Carolina State University. Retrieved June 27, 2007 from http://www.design.ncsu.edu/cud/newweb/about_ud/udprinciples.htm
- —. (2006b). Education and training. North Carolina State University. Retrieved June 27, 2007 from http://www.design.ncsu.edu:8120/cud/newweb/education_training/edu_train.htm
- Centers for Medicare and Medicaid Services. (2006). Retrieved May 25, 2006, from http://www. cms.hhs.gov/NationalHealthExpendData
- Cesare, S., Tannenbaum, R., & Dalessio, A. (1990). Interviewers' decisions related applicant handicap type and rater empathy. *Human Performance* 3: 157–71.
- Chow, R. (2000). Long-term care for aging inmates. Innovations in Aging, 29(2), 11-15.
- CNY Works Career Ctr. (2006). Functional Alignment Plan 4. Retrieved June 27, 2007 from http://www.cnyworks.com/Onondaga%20-%20Functional%20Alignment%20Narrative.pdf
- Cobb, S., Beardon, L., Eastgate, R., Glover, T., Kerr, S., Neale, H., et al. (2002). Applied virtual environments to support leaning of social interaction skills in users with Asperger's syndrome. *Digital Creativity* 13 (1): 11–22.
- Colella, A. (1996). Organizational socialization of newcomers with disabilities: A framework for future research. *Research in Personnel and Human Resources Management* 14: 351–417.
- Colella, A. (2001). Co-worker distributive fairness judgments of the workplace accommodation of employees with disabilities. *Academy of Management Review* 26: 100–16.
- Colella, A., DeNisi, A., & Varma, A. (1998). The impact of ratee's disability on performance judgments and choice as partner: The role of disability-job fit stereotypes and interdependence of rewards. *Journal of Applied Psychology* 43 (1): 102–11.
- Colella, A., & Varma, A. (1999). Disability-Job Fit Stereotypes and the Evaluation of Persons with Disabilities at Work. *Journal of Occupational Rehabilitation* 9 (2): 79–95.
- Cook, J. A., & O'Day, B. (2006). Supported employment: A best practice for people with psychiatric disabilities. Policy Brief. Ithaca, NY: Rehabilitation Research and Training Center on Employment Policy for Persons with Disabilities, Cornell University.
- Cook, M., & Cripps, B. (2005). *Psychological assessment in the workplace: A manager's guide*. New York: John Wiley & Sons Ltd.
- Cook, T., & Campbell, D. (1979). *Quasi-experimentation: Design and analysis issues for field studies*. Chicago: Rand McNally.

- Cooper, E., & O'Hara, A. (2005). Opening doors: Using the low income tax credit program to create affordable housing for people with disabilities. Retrieved June 27, 2007 from http://www.c-c-d.org/od-April05.htm
- Cornell RRTC. (2006). 2005 Disability status reports. Ithaca, NY: Rehabilitation Research and Training Center on Disability Demographics and Statistics, Cornell University.
- Corno, F., & Garbo, A. (2005, July). Multiple low-cost cameras for effective head and gaze tracking. 11th International Conference on Human-Computer Interaction, Las Vegas, Nevada. Retrieved July 27, 2006, from http://www.cad.polito.it/FullDB/exact/hci05.html
- Corno, F., Farinetti, L., & Signorile, I. (2002). A cost-effective solution for eye-gaze assistive technology. *Proceedings of 2002 IEEE International Conference on Multimedia and Expo*, 2: 433–36.
- Corporate Leadership Council. (2000, February). Work-life balance policies in support of innovative cultures. Catalog No. 070240550.
- —. (2003, October). Maintaining a work-life balance in the professional services industry. Catalog No. CLC118WIWT.
- Cotelco (2006). Collaboratory on technology enhanced learning communities. Retrieved June 27, 2007 from http://cotelco.syr.edu
- Cromby, J. J., Standen, P. J., Newman, J., & Tasker, H. (1996). Successful transfer to the real world of skills practised in a virtual environment by students with severe learning disabilities. *Proceedings of the 2nd European Conference on Disability, Virtual Reality and Associated Technologies*. Retrieved July 27, 2006, from http://www.icdvrat.reading.ac.uk/1996/abstracts.htm
- CTAA/IESM. (2000). *Status of rural public transportation—2000*. Community Transportation Association of America/Institute for Economic and Social Measurement. Retrieved June 25, 2005, from http://www.ctaa.org/ntrc/rtap/pubs/status2000a
- Danford, G. S. (2003). Universal design: People with vision, hearing, and mobility impairments evaluate a model building. *Generations* 27: 91–94.
- Davies, D. K., Stock, S. E., & Wehmeyer, M. L. (2003). Application of computer simulation to teach ATM access to individuals with intellectual disabilities. *Education and Training in De*velopmental Disabilities 38 (4): 451–56.
- Dean, D., & Honeycutt, T. (2005). Evaluating the long-term employment outcomes of Vocational Rehabilitation participants using survey and administrative data. Final Report to Disability Research Institute, University of Illinois at Urbana-Champaign.

- Dean, D., & Mork, T. (2004). Temporary and partial disability pension programs in Norway. InT. Honeycutt & S. Mitra (Eds.), *Learning from others: Temporary and partial benefit programs in nine countries.* Final Report to the Disability Research Institute.
- DeLeire, T. (2000). The wage and employment effects of the Americans with Disabilities Act. *Journal of Human Resources* 35 (4): 693–715.
- Demirbilek, O., & Demirkan, H. (2004). Universal Product Design involving elderly users: A participatory design model. *Applied Ergonomics* 35: 361, 363–67.
- Dixon, K. A., Kruse, D., & van Horn, C. E. (2003). *Restricted access: A survey of employers about people with disabilities and lowering barriers to work.* New Brunswick, NJ: Heldrich Center for Workforce Development, Rutgers University.
- Dolezalek, H. (2005). *Training Magazine*'s exclusive analysis of employer-sponsored training in the United States. *Training* (December): 14–28.
- Drehmer, D. E., & Bordieri, J. E. (1985). Hiring decisions for disabled workers: The hidden bias. *Rehabilitation Psychology* 30: 157–65.
- Drigas, A. S., Vrettaros, J., & Kouremenos, D. (2004). E-learning environment for deaf people in the e-commerce and new technologies sector. *WSEAS Transactions on Information Science and Applications* 5 (1).
- Druss, B. G., Marcus, S. C., Rosenheck, R. A., Olfson, M., Tanielian, T., & Pincus, H. A. (2000). Understanding disability in mental and general medical conditions. *American Journal of Psychiatry* 157 (9): 1485-91.
- Edelman, L. B. (1992). Legal ambiguity and symbolic structures: Organizational mediation of civil rights laws. *American Journal of Sociology* 97 (6): 1531–76.
- Edwards, K., & Mason, L. M. (2003). Policy report: State policy trends for Individual Development Accounts in the United States: 1993–2003. St. Louis, MO: Washington University George Warren Brown School of Social Work.
- Edwards, N. (2003). Predictors of bath grab-bar use among community-living older adults. *Canadian Journal of Aging* 22 (2): 217-27.
- Employment Foundation for the Improvement of Living and Working Conditions. (2004). *Employment and disability: Back to work strategies*. Luxembourg: Author.
- Employment Services System Research and Training Center (ESSRTC). (2005). Employment Services System Research and Training Center, Research Project 1 description: The Consor-

tium for Employment Success model (CES): Executive summary. Retrieved from http://www.essrtc.org/projects/project12.lasso

- Evans, N. J., Assadi, J.L. & Herriott, T.K. (2005). Encouraging the development of disability allies. In Reason et al. (Eds.), *Developing social justice allies: New directions in student services*. Jossey-Bass.
- Felzer, T., & Nordmann, R. (2005). How to operate a PC without using the hands. ACM SIGAC-CESS Conference on Assistive Technologies. *Proceedings of the 7th International ACM* SIGACCESS Conference on Computers and Accessibility, 198–99.
- Fichten, C. S., & Amsel, R. (1986). Trait attributions about college students with physical disabilities: Circumplex analyses and methodological issues. *Journal of Applied Social Psychol*ogy 16: 410–27.
- Flynn, M., & Hayes, C. D. (2003). Blending and braiding funds: To support early care and education initiatives (January): 8–10. Retrieved June 27, 2007 from http://www.financeproject. org/Publications/FP%20Blending%20Funds%201_24.pdf
- Fratangelo, P., et al. (2001). One person at a time: How one agency changed from group to individualized services for people with disabilities. St. Augustine, FL: Training Resource Network, Inc.
- Frazis, H., Gittleman, M., Horrigan, M., & Joyce, M. (1998, June). Results from the 1995 survey of employer-provided training. *Monthly Labor Review* 121 (6).
- Friedman, R., & Holtom, B. (2002). The effects of network groups on minority employee turnover intentions. *Human Resource Management* 41 (4): 405–21.
- Fuller, S. R., Edelman, L. B., & Matusik, S. (2000). Legal readings: Employee interpretation and enactment of civil rights law. *Academy of Management Review* 25 (1): 200–16.
- Fuqua, D. R., Rathbun, M., & Gade, E. M. (1983). A comparison of employer attitudes toward the worker problems of eight types of disabled workers. *Journal of Applied Rehabilitation Counseling* 15: 40–43.
- Gamble, M. J. (n.d.). Work-site accommodation ideas for individuals with vision impairments. Retrieved July 27, 2006, from http://www.jan.wvu.edu/media/Sight.html
- Gamble, M. J., Dowler, D., & Hirsh, A. E. (2004). Informed decision making on assistive technology workplace accommodations for people with visual impairments. *Work* 23 (2): 123–30.
- Gandz, J. (2001). A business case for diversity. Retrieved August 31, 2004, from http://www.equalopportunity.on.ca/eng_g/documents/BusCase.html

- Germann, C., Broida, J. K., & Broida, J. M. (2003). Using computer-based virtual tours to assist persons with disabilities. *Educational Technology & Society* 6 (3): 53–60. Retrieved July 27, 2006, from http://ifets.ieee.org/periodical/6_3/7.html
- Gill, M. (2005). The myth of transition: Contractualizing disability in the sheltered workshop. *Disability & Soc 'y* 20: 613, 614.
- Gouvier, W. D., Steiner, D. D., Jackson, W. T., Schlater, D., & Rain, J. S. (1991). Employment discrimination against handicapped job candidates: An analog study of the effects of neurological causation, visibility of handicap, and public contact. *Rehabilitation Psychology* 36: 121–29.
- Graffam, J., Shinkfield, A., Smith, K., & Polzin, U. (2002). Factors that influence employer decisions in hiring and retaining an employee with a disability. *Journal of Vocational Rehabilitation* 17: 175–81.
- Griffin, C. (2002). Introduction to special edition on self-employment for people with disabilities. *Journal of Vocational Rehabilitation* 17 (2): 63.
- Griffin, C., & Hammis, D. (2002). Jimbo's jumbos: A primer on small business planning. *Journal* of Vocational Rehabilitation 17 (2): 87–96.
- Gruber, J., & Kubik, J. (2002). *Health insurance coverage and the disability insurance application decision*. NBER Working Paper No. 9148. Cambridge, MA: National Bureau of Economic Research.
- Gruber, J., & Madrian, B.C. (2002). *Health insurance, labor supply, and job mobility: A critical review of the literature*. NBER Working Paper No. 8817. Cambridge, MA: National Bureau of Economic Research.
- Hadley, J. (2003). Sicker and poorer: The consequences of being uninsured. *Medical Care Research & Review* 60 (2): 3S–75S.
- Hagner, D., & Davies, T. (2002). Doing my own thing: Supported self-employment for individuals with cognitive disabilities. *Journal of Vocational Rehabilitation* 17 (2): 65–74.
- Hale, T. W., Hayghe, H. V., & McNeil, J. M. (1998). Labor market activity, 1994. *Monthly Labor Review* 121 (9): 3–10.
- Handel, M., & Levine, D. (2006). The effects of new work practices on workers. In E. E. Lawler& J. O'Toole (Eds.), *America at work: Choices and challenges*, 73–86. New York: Palgrave-MacMillan.

- Hanley-Maxwell, C., Owens-Johnson, L., & Fabian, E. (2004). Supported employment. In E. M. Szymanski & R. M. Parker (Eds.), Work and disability: Issues and strategies in career development and job placement. Austin, TX: Pro-Ed.
- Hansen, E. G., et al. (2005). Accessibility of tests for individuals with disabilities within a validity framework. *System* 33.
- Harrison, P. J., et al. (1990). Determining success in interagency collaboration: An analysis of processes and behaviors. *Infants & Young Children* 3: 69, 73–75.
- Hawaii RRTC. (2003). RRTC Products, Rehabilitation Research and Training Center, University of Hawai'i at Manoa. Retrieved June 27, 2007 from http://www.rrtc.hawaii.edu/products/ default.htm
- Heath Resource Center. (2006, March). *Guidance and career counselor's toolkit: Advising high school students with disabilities on postsecondary options*. George Washington University. Retrieved June 27, 2007 from http://www.heath.gwu.edu/Toolkit/Toolkit.pdf
- Hecker, D. E. (2005). Occupational employment projections to 2014. *Monthly Labor Review* (November): 70–101.
- Hedge, J. W., Borman, W. C., & Lammlein, S. E. (2006). Training, performance management, and career management. In J. W. Hedge, W. C. Borman, & S. E. Lammlein (Eds.), *The aging workforce: Realities, myths, and implications for organizations,* 137–54. Washington, DC: American Psychological Association.
- Hehir, T. (2002). Eliminating ableism in education. Harvard Educ'l Rev. 72: 1–32.
- Hendricks, D. J., Batiste, L. C., Hirsh, A., Schartz, H., & Blanck, P. (2005). Cost and effectiveness of accommodations in the workplace: Preliminary results of a nationwide study. *Disability Studies Quarterly* 25 (4). Retrieved July 27, 2006, from http://www.dsq-sds.org/_articles_ html/2005/fall/hendricks_etal.asp
- Hennessey, J. C., & Muller, L. S. (1994). Work efforts of disabled-worker beneficiaries: Preliminary findings from the New Beneficiary Followup Survey. *Social Security Bulletin* 57 (3): 42–51.
- Hernandez, B., Keys, C., & Balcazar, F. (2000). Employer attitudes toward workers with disabilities and their ADA employment rights: A literature review. *Journal of Rehabilitation* 66: 4–16.
- Hitt, M. A., & Barr, S. H. (1989). Managerial selection decision models: Examination of configural cue processing. *Journal of Applied Psychology* 74: 53–61.

- Holtgraves, T. (2004). Social desirability and self-reports: Testing models of socially desirable responding. *Personality and Social Psychology Bulletin* 30: 161–72.
- Honeycutt, T. C., & Mitra, S. (Eds.). (2004). Learning from others: Temporary and partial programs in nine countries. Final Report to the Disability Research Institute, University of Illinois at Urbana-Champaign. Accessed at http://www.dri.uiuc.edu/research/p04-12h/ learning_final_report.pdf.
- Horne, R. L., & Hubbard, S. (1995). *The Youth Transition Program: Case study report.* National Institute of Work and Learning.
- Hotchkiss, J. L. (2004a). A closer look at the employment impact of the Americans with Disabilities Act. *Journal of Human Resources* 39 (4): 887–911.
- —. (2004b). Growing part-time employment among workers with disabilities: Marginalization or opportunity? *Economic Review*, Federal Reserve Bank of Atlanta, Third Quarter, 1–16.
- Houtenville, A. J. (2006). *Health insurance coverage and employment among working-age people with disabilities.* Paper presented at the Sixth International Conference on Occupational Stress and Health, Miami, FL, March 2–3.
- Houtenville, A. J., & Burkhauser, R. V. (2004). Did the employment of people with disabilities decline in the 1990s, and was ADA responsible? Research Brief. Ithaca, NY: Research and Rehabilitation Training Center for Economic Research on Employment Policy for Persons with Disabilities, Cornell University.
- Houtenville, A. J., & Daly, M. C. (2003). Employment declines among people with disabilities:
 Population movements, isolated experience, or broad policy concern? In D. C. Stapleton &
 R. V. Burkhauser (Eds.), *The decline in employment of people with disabilities: A policy puzzle*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Huxham, C., & Vangen, S. (2000). Ambiguity, complexity and dynamics in the membership of collaboration. *Human Relations* 53: 771, 800.
- Information Technology Association of America (ITAA). (2003). Report of the ITAA Blue Ribbon Panel on IT Diversity. Retrieved September 1, 2006, from http://www.itaa.org/workforce/ docs/03divreport.pdf.
- Institute of Medicine of the National Academies. (2001). *Coverage matters: Insurance and health care*. Washington, DC: Author.
- ----. (2002). Care without coverage: Too little, too late. Washington, DC: Author.

- Ipsen, C., Arnold, N. L., & Colling, K. (2005). Self-employment for people with disabilities: Enhancing services through interagency linkages. *Journal of Disability Policy Studies* 15 (4), 231–39.
- Irwin, N. (2006). Red tape ties up D.C.'s unemployed. Washington Post, February 13, A1.
- Iwarsson, S., & Stahl, A. (2003). Accessibility, usability, and universal design—Positioning and definition of concepts describing person-environment relationships. *Disability & Rehabilitation* 25: 57, 62.
- Izzo, M., & Lamb, P. (2002). Self-determination and career development: Skills for successful transitions to postsecondary education and employment. NCSET White Paper, 2002. Retrieved June 27, 2007 from http://www.ncset.hawaii.edu/Publications/pdf/self_determination.pdf
- Job Accommodation Network (2001). Accommodations for housekeeping/janitorial workers with industrial injuries. *JAN Consultant's Corner* 1 (2). Retrieved July 27, 2006, from http://www.jan.wvu.edu/corner/vol01iss02.htm
- —. (2005). Technology spotlight: Communication access technology for individuals who are deaf or hard of hearing. JAN e-news 3 (2). Retrieved July 27, 2006, from http://www.jan.wvu. edu/enews/2005/Enews_V3-I2.htm#three

—. (n.d.). Accommodation and Compliance Series: Personal Assistance Services (WPAS) in the Work Place. Retrieved January 15, 2007, from http://www.jan.wvu.edu/media/PAS.html

- Johnstone, C. J. (2003). Improving validity of large-scale tests: Universal design and student performance (Technical Report 37). National Center for Educational Outcomes. Retrieved June 27, 2007 from http://www.education.umn.edu/NCEO/OnlinePubs/TechReport37.pdf
- Kaestle, C. F. (2000). Toward a political economy of citizenship: Historical perspectives on the purposes of common schools. In L. M. McDonnell, P. M. Timpane, & R. Benjamin (Eds.), *Rediscovering the democratic purposes of education*. Lawrence: University Press of Kansas.
- Kaiser Family Foundation (2005). *State facts*. Retrieved January 10, 2005, from http://www.state-healthfacts.org/cgi-bin/healthfacts
- —. (2006, September 26). Health insurance premium growth moderates slightly in 2006, but still increases twice as fast as wages and inflation. Retrieved October 16, 2006, at http://www. kff.org/insurance/ehbs092606nr.cfm
- Kaye, H. S. (2000). Disability and the digital divide. *Disability statistics abstract*, Number 22. Disability Statistics Center, University of California, San Francisco.

- Kilian, C. M., Hukai, D., & McCarty, E. C. (2005). Building diversity in the pipeline to corporate leadership. *Journal of Management Development* 24 (2): 155–68.
- Kim, J. S., Jeong, H., & Son, W. (2004). A new means of HCI: EMG-Mouse. 2004 IEEE International Conference on Systems, Man and Cybernetics, 100–04.
- Kitchener, M., Ng, T., & Kaye, S. (2006, December). Publicly-funded personal care assistance in Florida: Current provision and future demands. Center for Personal Assistance Services, University of California, San Francisco.
- Klaus, L. A. (1997). Work-life programs help reduce employee absenteeism. Quality Progress 30 (11).
- Klein, D., Schmeling, J., & Blanck, P. (2005). Emerging technologies and corporate culture at Microsoft: A methodological note. *Behavioral Sciences and the Law* 23.
- Klumb, P. L., & Lampert, T. (2004). Women, work, and well-being 1950–2000: A review and methodological critique. *Social Science and Medicine* 58 (6): 1007–24.
- Knowling, R. (2003). Keynote speech. 2003 National IT Workforce Convocation, Arlington, VA.
- Kochan, T., Bezrukova, K., Ely, R., Jackson, S., Joshi, A., Jehn, K., et al. (2003). The effects of diversity on business performance: Report of the diversity research network. *Human Resource Management* 42: 3–21.
- Koffman, D., Raphael, D., & Weiner, R. (2003). *The impact of federal programs on transportation for older adults*. Washington, DC: AARP Public Policy Institute.
- Kolben, N., & Paprocki, C. (2001). Next steps in blended funding: A policy recommendation. Early Childhood Strategic Group, 2001. Retrieved June 27, 2007 from http://www.nycenet. edu/opm/vendor/rfppdf/blendedfunding.pdf
- Konrad, A. M., & Mangel, R. (2000). The impact of work-life programs on firm productivity. *Strategic Management Journal* 21 (12): 1225–39.
- Kornfeld, R., & Rupp, K. (2000). The effects of the Project NetWork return-to-work case management experiment on participant earnings, benefit receipt, and other outcomes. *Social Security Bulletin* 63 (1): 12–33.
- Kramer R., Neiditz, J., & Eller E. (1997). The EEOC's new ADA mental disability guidelines: An EAP is a pretty reasonable accommodation. *Benefits Quarterly* 13 (4): 72–6.
- Kraus, S. (1995). Attitudes and the prediction of behavior: A meta-analysis of the empirical literature. *Personality and Social Psychology Bulletin* 21: 58–75.

- Krefting, L. A., & Brief, A. P. (1976). The impact of applicant disability on evaluative judgments in the selection process. *The Academy of Management Journal* 19: 675–80.
- Krueger, A., & Kruse, D. (1995, October). *Labor market effects of spinal cord injuries in the dawn of the computer age*. National Bureau of Economic Research Working Paper No. 5302.
- Kruse, D. (1998). Persons with disabilities: Demographic, income, and health care characteristics. *Monthly Labor Review* 121 (9): 8–15.
- Kruse, D. (2000). Commentary on "the economic and social impacts of telework" by Sean Doherty et al. *Telework: The new workplace of the 21st century*, 98–102. Washington, DC: U.S. Department of Labor.
- Kruse, D., & Schur, L. (2002). Non-standard work arrangements and disability income. Report to the Disability Research Institute, University of Illinois at Urbana-Champaign.
- Kruse, D., & Schur, L. (2006). Occupation projections for people with disabilities. Working
 Paper. Disability and Rehabilitation Research Program on Employer Demand for People with
 Disabilities, School of Management and Labor Relations, Rutgers University.
- Kuhlen, T., & Dohle, C. (1995). Virtual reality for physically disabled people. *Computers in Biology and Medicine* 25 (2): 205–11.
- Lahav, O., & Mioduser, D. (2002). Multisensory virtual environment for supporting blind persons' acquisition of spatial cognitive mapping, orientation, and mobility skills. *Proceedings of the 4th International Conference on Disability, Virtual Reality and Associated Technologies*.
- LaPlante, M., Kaye, S., Kang, T., & Harrington, C. (2004). Unmet need for personal assistance services: Estimating the shortfall in hours of help and adverse consequences. *Journal of Gerontology: Social Science* 59b (2): S98–S108.
- Law, Health Policy & Disability Center (LHPDC). (2005). *Disability Program Navigator Initiative: Process evaluation analysis, Quarter Seven addendum* 4 (July–September), Law, Health Policy & Disability Center, University of Iowa. Retrieved June 27, 2007 from http://disability. law.uiowa.edu/dpn/grant/index.html
- Lawrence, J. A., Boxer, P., & Tarakeshwar, N. (2002). Determining demand for EAP services. *Employee Assistance Quarterly* 18 (1): 1–16.
- Lehr, C. A., & McComas, J. (2005). Students with emotional/behavioral disorders: Promoting positive outcomes. *Impact* 18: 2–3, 37. Retrieved June 27, 2007 from http://ici.umn.edu/ products/impact/182/182.pdf

- Lengnick-Hall, M. (2007). *Hidden talent: How leading companies hire, retain, and benefit from people with disabilities.* Westport, CT: Praeger Publishers.
- London, M. (Ed.). (2001). *How people evaluate others in organizations*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Loprest, P., & Maag, E. (2001). Barriers to and supports for work among adults with disabilities: Results from the NHIS-D. Washington, DC: U.S. Department of Health and Human Services. Retrieved August 18, 2005, from http://aspe.hhs.gov/daltcp/reports/barriers.htm
- Mace, R. (1997). *What is universal design?: Definition*. Center for Universal Design, North Carolina State University. Retrieved June 27, 2007 from http://www.design.ncsu.edu:8120/cud/univ_design/ud.htm
- Macpherson, C., & Keppell, M. (1998). Virtual reality: What is the state of play in education. *Australian Journal of Educational Technology* 14 (1): 60–74. Retrieved July 14, 2006, from http://www.ascilite.org.au/ajet/ajet14/macpherson.html
- Madrian, B. C. (2006). *The U.S. health care system and labor markets*. NBER Working Paper No. 11980. Cambridge, MA: National Bureau of Economic Research.
- Mank, D. (2005). The National Post-School Outcomes Center at the University of Oregon: External Evaluation 4 (December). Retrieved June 27, 2007 from http://www.psocenter.org/Docs/ monthly_reports/2006/MankYR1finalrptDec05.doc
- Marin, B., Prinz, C., & Queisser, M. (Eds.). (2004). *Transforming disability welfare policies: Towards work and equal opportunities*. Brookfield, VT: Ashgate.
- Marsden, J. P., et al. (2001). Therapeutic kitchens for residents with dementia. *American Journal* of Alzheimer's Disease & Other Dementias 16.
- Marsh, A., May, M., & Saarelainen, M. (2000). Pharos: Coupling GSM and GPS-TALK technologies to provide orientation, navigation and location-based services for the blind. *Proceedings of 2000 IEEE EMBS International Conference on Information Technology Applications in Biomedicine*, November 9–10, 2000, 38–43.
- Marti, M.W., & Blanck, P.D. (2000). Attitudes, behavior, and the ADA. In Blanck, P.D. (Ed.), *Employment, Disability, and the Americans with Disabilities Act: Issues in Law, Public Policy, and Research* (356-384). Northwestern University Press.
- Mashaw, J.L., & Reno, V.P. (Eds.). (1996). *Balancing security and opportunity: The challenge of disability income policy*. Washington, DC: National Academy of Social Insurance.

- Mashaw, J.L. et al. (Eds.). (1996). *Disability, work and cash benefits*. Michigan: W.E. Upjohn Institute.
- Mayfield, L., & Lucas Jr., E. P. (2000). Mutual awareness, mutual respect: The community and the university interact. *Cityscape* 5: 173, 179–83.

Maynard, N. F. (2003). Mass appeal. Builder 26.

- McClintic, H., & Williams, J. M. (2003). Assistive technologies: Expanding a universe of possibilities, 88–148. Retrieved June 27, 2007 from http://www.atn-ctcf.org./home.cfm
- McDowall-Long, K. (2004). Mentoring relationships: Implications for practitioners and suggestions for future research. *Human Resource Development International* 7 (4): 519–34.
- McLaughlin, C. G. (Ed.). (2004). *Health policy and the uninsured*. Washington, DC: Urban Institute.
- McLeister, D. (1999). An open door for universal design. Professional Builder (March).
- McMahon, B., Wehman, P., Brooke, V., Habeck, R., Green, H., & Fraser, R. (2004). Business, disability and employment: Corporate models of success. Virginia Commonwealth University RRTC on Workplace Supports and Job Retention. Retrieved June 27, 2007 from http://www. worksupport.com/research/listFormatContent.cfm/5
- McNeil, J. (2001). Americans with disabilities: 1997. U.S. Census Bureau, Current Population Reports, P70-73. Washington, DC: U.S. Government Printing Office.
- Mendozzi, L., Pugnetti, L. Barbieri, E., Attree, E. A., Rose, F. D., Moro, W., et al. (2000). VIRT factory trainer project. A generic productive process to train persons with disabilities. *Proceedings of 3rd International Conference on Disability, Virtual Reality and Associated Technologies*. Retrieved July 27, 2006, from http://www.icdvrat.reading.ac.uk/2000/abstracts.htm
- Meyers, A. R., & Andresen, E. M. (2000). Enabling our instruments: Accommodation, universal design, and access to participation in research. *Archives Physical Medicine and Rehabilitation* 81: S5, S5–S8.
- Millington, M., Rosenthal, D., & Lott Jr., A. (1997). Employment expectation profiles as a differential measure of employment-related attitudes towards people with disabilities. *Journal of Applied Rehabilitation Counseling* 28: 36–39.
- Mondak, P. (2000). The Americans with Disabilities Act and information technology access. *Focus on Autism and Other Developmental Disabilities* 15 (1): 43–51.

- Montana RRTC. (2001). *First national study of people with disabilities who are self-employed. Rural Disability and Rehabilitation Research Progress Report #8*. Missoula, MT: Research and Training Center on Rural Rehabilitation Services.
- Montgomery, S. M., Cook, D. G., Bartley, M. J., & Wadsworth, M. E. J. (1999). Unemployment pre-dates symptoms of depression and anxiety resulting in medical consultation in young men. *International Journal of Epidemiology* 28: 95–100.
- Morris, M., & Silverstein, B. (n.d.). Review of state plans for the Workforce Investment Act from a disability policy framework: Executive summary. University of Iowa, Law, Health Policy & Disability Center. Retrieved June 27, 2007 from http://disability.law.uiowa.edu/lhpdc/rrtc/documents/morris/WIA_Executive_Summary.doc
- Müller, E., & Tschantz, J. (2003, April). Universal design for learning: Four state initiatives. *Quick Turn Around*. Retrieved June 27, 2007 from http://www.nasdse.org/publications/udl.pdf
- Muller, L. S. (1992). Disability beneficiaries who work and their experience under program work incentives. *Social Security Bulletin* 57 (2): 2–19.
- Mutua, N. K., & Elhoweris, H. (2002). Parents' expectations about the postschool outcomes of children with hearing disabilities. *Exceptionality* 10: 189–201.
- Myhill, W. N. (2004). No FAPE for children with disabilities in the Milwaukee Parental Choice Program: Time to redefine a free appropriate public education. *Iowa L. Rev.* 89: 1051, 1055–57.
- National Center on Accessibility. (2003). *About NCA*. Retrieved June 27, 2007 from http://www.ncaonline.org/about/
- —. (2006). The access coordinators training: Introduction to accessibility management in parks and recreation. Retrieved June 27, 2007from http://www.ncaonline.org/training/ access_coordinators.shtml
- National Center for Special Education Accountability Monitoring (NCSEAM). (2004). National Accountability Conference on Special Education and Early Intervention. NCSEAM, Louisiana State University Health Sciences Center. Retrieved June 27, 2007 from http://www.monitoringcenter.lsuhsc.edu/AccountabilityConference.htm
- National Collaborative on Workforce and Disability (NCWD). (2006, January). Blending and braiding funds and resources: The intermediary as facilitator. *Info Brief*. Retrieved from http://www.ncwd-youth.info/resources_&_Publications/information_Briefs/issue18.html
- National Council on Disability (NCD). (2000a). *Back to school on civil rights* 8, 89. Retrieved from http://www.ncd.gov/newsroom/publications/2000/pdf/backtoschool.pdf

- —. (2000b). Transition and post-school outcomes for youth with disabilities: Closing the gaps to post-secondary education and employment, 61. Retrieved June 27, 2007 from http://www. ncd.gov/newsroom/publications/2000/pdf/transition_11-1-00.pdf
- —. (2001). The accessible future. Retrieved July 27, 2006, from http://www.ncd.gov/ newsroom/publications/2001/accessiblefuture.htm
- —. (2003, September 15). People with disabilities and post-secondary education: Position paper. Retrieved June 27, 2007 from http://www.ncd.gov/newsroom/publications/2003/education.htm
- —. (2004a). Design for inclusion: Creating a new marketplace. Retrieved June 27, 2007 from http://www.ncd.gov/newsroom/publications/2004/pdf/newmarketplace.pdf
- —. (2004b). Improving educational outcomes for students with disabilities, 60 (May 17). Retrieved June 27, 2007 from http://www.ncd.gov/newsroom/publications/2004/pdf/ educationoutcomes.pdf
- —. (2004c). *Livable communities for adults with disabilities*. Washington, DC: National Council on Disability.
- —. (2005a). *The state of 21st century long-term services and supports: Financing and systems reform for Americans with disabilities.* Washington, DC: National Council on Disability.
- —. (2005b). The current state of transportation for people with disabilities in the United States.
 Washington, DC: National Council on Disability.
- ----. (2006). Creating livable communities. Washington, DC: National Council on Disability.
- National Endowment for the Arts. (2006). *First juried collection of universal design exemplars*. Retrieved March 30, 2006, from http://www.nea.gov/resources/Accessibility/UDesignPR2.html
- National Library Service for the Blind and Physically Handicapped. (1994, June). *NLS reference bibliographies—Accessibility: A selective bibliography.* Retrieved June 27, 2007 from http://www.loc.gov/nls/reference/bibliographies/accessib.html
- National Longitudinal Transition Study-2 (NLTS2). (2005). *NLTS2 Home and News*. Retrieved June 19, 2006, from http://www.nlts2.org/
- ----. (2006). NLTS2 FAQ. Retrieved June 19, 2006, from http://www.nlts2.org/nlts2faq.html
- National Organization on Disability (N.O.D.). (2003a). *Workplace diversity programs enhance employment of people with disabilities, survey finds*. Retrieved August 31, 2004, from http://www.nod.org/ content.cfm?id = 1318

- —. (2003b). EEOC sues the Home Depot for terminating employee with disability. Retrieved August 31, 2004, from http://www.nod.org/content.cfm?id = 1440
- National Organization on Disability (N.O.D.)/Harris. (2000). 2000 Survey of Americans with disabilities. National Organization on Disability/Louis Harris and Associates.
- National Post-School Outcomes Center (NPSO). (2005). *About us*. Retrieved June 27, 2007 from http://www.psocenter.org/about.html
- —. (2006a). Draft post-school outcomes data collection procedures checklist. Retrieved June 27, 2007 from http://www.psocenter.org/Docs/datacollectionChklist.doc
- —. (2006b). Post-school data collection protocol, Stage 1: Recommended essential questions to address Indicator #14, Student Demographic Profile (SDP) and Post-School Data Collection Survey (PSS), 3–6. NPSO. Retrieved June 27, 2007 from http://www.psocenter.org/Docs/ DataCollfinalrev050106.doc
- Neisser, G. (1976). Cognition and reality. San Francisco: W. H. Freeman.
- Newcomb, Chad, Suzanne Payne, and Mikki D. Waid (2003). "What Do We Know about Disability Beneficiaries' Work and Use of Work Incentives Prior to Ticket?: Background Information and Baseline Data." In *Paying for Results in Vocational Rehabilitation: Will Provider Incentives Work for Ticket to Work*, edited by Kalman Rupp and Stephen H. Bell. Washington, DC: Urban Institute Press.
- New York Times. (2005). Program offers health care for some part-time workers. October 4, C2.
- NICHCY (2003, June). Who are the children in special education? *Research Brief (RB2)*. Retrieved June 27, 2007 from http://www.nichcy.org/pubs/research/rb2txt.htm
- Nighswonger, G. (2001, October). Using computer-aided design to enhance product development. *Med. Device & Diagnostic Indus*. Retrieved June 27, 2007 from http://www.devicelink. com/mddi/archive/01/10/006.html
- OECD. (2002). *Society at a glance: OECD social indicators*. Paris: Organization for Economic Cooperation and Development.
- —. (2003). *Transforming disability into ability: Policies to promote work and income security for disabled people.* Paris: Organization for Economic Cooperation and Development.
- Office of Disability Employment Policy (ODEP), U.S. Department of Labor. (2005). *Entrepreneurship: A flexible route to economic independence for people with disabilities*. Washington, DC. Retrieved October 25, 2006, from http://dol.gov/odep/pubs/misc/entrepre.htm

- —. (n.d.). Small business and self-employment for people with disabilities. Washington, DC. Retrieved October 25, 2006, from http://dol.gov/odep/programs/promotin.htm
- Office of Special Education Programs (OSEP), U.S. Department of Education. (2005, January). *Annual performance report technical assistance document.*
- O'Hara, K. (2004). "Curb cuts" on the information highway: Older adults and the Internet. *Technical Communications Quarterly* 13.
- Oravec, J. A. (2002). Virtually accessible: Empowering students to advocate for accessibility and support universal design. *Library Hi Tech* 20: 452.
- O'Shaughnessy, C. (2003). *Long-term care chart book: Persons served, payers and spending* (RS21518). Washington, DC: Congressional Research Service, Library of Congress.
- Pager, D., & Qullian, L. (2005). Walking the talk? What employers say versus what they do. *American Sociological Review* 70: 355–80.
- Parnell, J. A. (1998). Improving the fit between organizations and employees. *SAM Advanced Management Journal* 63 (1): 35–43.
- Parsons, S., & Mitchell, P. (2002). The potential of virtual reality in social skills training for people with autistic spectrum disorders. *Journal of Intellectual Disability Research* 46 (5): 430–43.
- Paul, S. (2000). Students with disabilities in higher education: A review of the literature. *Coll. Student J.* 34: 200, 203–06.
- Pavalko, E. K., & Smith, B. (1999). The rhythm of work: Health effects of women's work dynamics. Social Forces 77 (3): 1141–62.
- Peck, B., & Kirkbride, L. T. (2001). Why businesses don't employ people with disabilities. *Journal of Vocational Rehabilitation* 16 (2): 71–5.
- Powers, L. E., Sowers, J.-A., & Stevens, T. (1995). An exploratory, randomized study of the impact of mentoring on the self-efficacy and community-based knowledge of adolescents with severe physical challenges. *The Journal of Rehabilitation* 61.
- President's Committee for People with Intellectual Disabilities (PCPID). (2004). A charge we have to keep: A road map to personal and economic freedom for persons with intellectual disabilities in the 21st century. Retrieved June 27, 2007 from http://www.acf.hhs.gov/programs/pcpid/2004_rpt_pres/2004_report.html
- Presser, H. B., & Altman, B. (2002). Work shifts and disability: A national view. *Monthly Labor Review* 125 (9): 11–24.

- Price, C. A., et al. (2004). Implementing a university-community-retail partnership model to facilitate community education on universal design. *Gerontologist* 44.
- Prinz, C. (Ed.). (2003). *European disability pension policies: 11 country trends 1970–2002*. Brookfield, VT: Ashgate.
- Ragins, B. R. (1997). Diversified mentoring relationships in organizations: A power perspective. *Academy of Management Review* 22 (2): 482–521.
- Ramirez, S. A. (2000). Diversity and the boardroom. *Stanford Journal of Law, Business and Finance* 6 (1): 85–133.
- Ran, L., Helal, S., & Moore, S. (2004). Drishti: An integrated indoor/outdoor blind navigation system and service. *Proceedings of the Second IEEE Annual Conference on Pervasive Computing and Communications*. PerCom, 2004, 23–30.
- Rao, S. (2004). Faculty attitudes and students with disabilities in higher education: A literature review. *Coll. Student J.* 38: 191, 197.
- Ravaud, J., Madiot, B., & Ville, I. (1992). Discrimination towards disabled people seeking employment. *Social Science and Medicine* 35: 951–58.
- RESNA. (2006). *Alternative financing technical assistance project*. Retrieved June 27, 2007, from http://www.resna.org/AFTAP/success/index.html#acce
- Rizzo, D. C. (2002). With a little help from my friends: Supported self-employment for people with severe disabilities. *Journal of Vocational Rehabilitation* 17 (2): 97–105.
- Rogowski, J., & Karoly, L. (2000). Health insurance and retirement behavior: Evidence from the health and retirement survey. *Journal of Health Economics* 19: 529–39.
- Rose, D., & Meyer, A. (2000). Universal design for learning: Associate Editor column. *Journal of Special Education Technology*, Winter. Retrieved June 27, 2007 from http://jset.unlv.edu/15.1/ asseds/rose.html
- Rose, F. D., Brooks, B. M., & Attree, E. A. (2000). Virtual reality in vocational training of people with learning disabilities. *Proceedings of 3rd International Conference on Disability, Virtual Reality and Associated Technologies*. Retrieved July 27, 2006, from http://www.icdvrat. reading.ac.uk/2000/abstracts.htm
- Rose, F. D., Brooks, B. M., & Attree, E. A. (2002). An exploratory investigation into the usability and usefulness of training people with learning disabilities in a virtual environment. *Disability and Rehabilitation* 24 (11–12): 627–33.

- Rose, G. L., & Brief, A. P. (1979). Effects of handicap and job characteristics on selection evaluations. *Personnel Psychology* 32: 385–92.
- Ross, C. E., & Mirowsky, J. (1995). Does employment affect health? *Journal of Health and Social Behavior* 36 (3): 230–43.
- Ross, D. A., & Lightman, A. (2005). Talking Braille: a wireless ubiquitous computing network for orientation and wayfinding. *Proceedings of the 7th International ACM SIGACCESS Con-ference on Computers and Accessibility* 89–105.
- Rothke, S. E. (2001). Developing job accommodations for workers with brain injuries. *Inside Case Management* 8 (7): 2–4.
- Rowe, P. (1984). Decision processes in personnel selection. *Canadian Journal of Behavioral Science* 16: 326–37.
- Saab, T. D. (n.d.). Work-site accommodation ideas for individuals who are deaf or hard of hearing. Retrieved July 27, 2006, from http://www.jan.wvu.edu/media/Hearing.html
- Saab, T. D., & Gamble, M. J. (n.d.). The job accommodation process. Retrieved July 27, 2006, from http://www.jan.wvu.edu/media/JobAccommodationProcess.html
- Saito, Y. (2006). Awareness of universal design among facility managers in Japan and the United States. *Automation in Construction* 15: 462–78.
- Sandhu, J. S. (2000, Spring). Citizenship and universal design. Ageing International.
- Sandler, L., & Blanck, P. (2004). Accessibility as a corporate article of faith at Microsoft: Case study of corporate culture and human resource dimensions. *Behavioral Sciences and the Law* 23: 39–64.
- Schartz, H. A., Hendricks, D. J., & Blanck, P. (2006a). Workplace accommodations: Evidence based outcomes. *Work* 27: 345–54.
- Schartz, H. A., Hendricks, D. J., & Blanck, P. (2006b). Workplace accommodations: More empirical outcomes. University of Mississippi Law Review 75: 917–43.
- Schartz, K., Schartz, H. A., & Blanck, P. (2002). Employment of persons with disabilities in information technology jobs: Literature review for "IT Works." *Behavioral Sciences and the Law* 20 (6): 637–57.
- Schartz, H., Schartz, K., Hendricks, D. J., & Blanck, P. (2006). Workplace accommodations: Empirical study of current employees. *Mississippi Law Journal* 75: 917–43.

- Scherer, M. J., & Glueckauf, R. (2005). Assessing the benefits of assistive technologies for activities and participation. *Rehabilitation Psychology* 50 (2): 132–41.
- Schoenbaum, M., Unutzer, J., McCaffrey, D., Duan, N., Sherbourne, C., & Wells, K. B. (2002). The effects of primary care depression treatment on patients' clinical status and employment. *Health Services Research* 37 (5): 1145–58.
- Schur, L. (2002a). Dead-end jobs or a path to economic well-being? The consequences of nonstandard work for people with disabilities. *Behavioral Sciences and the Law* 20: 601–20.
- —. (2002b). The difference a job makes: The effects of employment among people with disabilities. *Journal of Economic Issues* 36 (2): 1–9.
- —. (2003). Barriers or opportunities? The causes of contingent and part-time work among people with disabilities. *Industrial Relations* 42: 589–622.
- Schur, L., Kruse, D., & Blanck, P. (2005). Corporate culture and the employment of people with disabilities. *Behavioral Sciences and the Law* 23: 3–20.
- Schur, L., Kruse, D., Blanck, P., & Blasi, J. (2006, May). Corporate culture and the experiences of employees with disabilities. Paper presented at the Society for Industrial and Organizational Psychology Annual Conference, Dallas, Texas.
- Shaw, S. F., & Dukes III, L. L. (2005). Performance indicators for postsecondary disability services. J. Developmental Educ. 29: 10–14.
- Shepard, E., Clifton, T., & Kruse, D. (1996). Flexible work hours and labor productivity: Some evidence from the pharmaceutical industry. *Industrial Relations* 35 (1): 123–39.
- Smedley, T. M., & Higgins, K. (2005). Virtual technology: Bringing the world into the special education classroom. *Intervention in School and Clinic* 41 (2): 114–19.
- Social Security Administration (SSA). (2003). *Annual statistical report on the Social Security Disability Insurance Program.* Baltimore, MD: Social Security Administration.
- —. (2006). Work incentive planning and assistance projects. Frequently Asked Questions. Washington, DC. Retrieved October 25, 2006, from http://www.ssa.gov/work/WIPARFA_ FAQ.html
- Society for Human Resource Management (SHRM). (2004). *What is the "business case" for diversity*? Retrieved August 31, 2004, from http://www.shrm.org/diversity/businesscase.asp
- Speaking of Computers. (2002). Alternative micestyles and unconventional keyboards. *Speaking of Computers* 58. Retrieved July 27, 2006, from http://speaking.stanford.edu/Back_Issues/SOC58/index.html

- Standen, P. J., & Cromby, J. J. (1995). Can students with developmental disability use virtual reality to learn skills which will transfer to the real world? *Proceedings of the 1995 CSUN VR Conference*. Retrieved July 27, 2006, from http://www.csun.edu/cod/conf/1995/ proceedings/0011.htm
- Standen, P. J., & Ip, W. M. D. (2002). An evaluation of the use of virtual environments in improving choice reaction time in people with severe intellectual disabilities. *Proceedings of the 4th International Conference on Disability, Virtual Reality and Associated Technologies*. Retrieved July 27, 2006, from http://www.icdvrat.reading.ac.uk/2002/
- Stapleton, D. C., & Burkhauser, R.V. (Eds.). (2003). *The decline in employment of people with disabilities*. Kalamazoo, MI: UpJohn Institute.
- Stapleton, D., Wittenburg, D., & Maag, E. (2005). *A difficult cycle: The effect of labor market changes on the employment and program participation of people with disabilities*. Employment and Disability Institute, Cornell University.
- Steinbrook, R. (2006). Health care reform in Massachusetts: A work in progress. *New England Journal of Medicine* 354 (20): 2095–98.
- Steuer, J. (1992). Defining Virtual Reality: Dimensions determining telepresence. Journal of Communication 42 (4): 73–93.
- Stodden, R., Jones, M.A., & Chang, K. (2002). Services, supports and accommodations for individuals with disabilities: An analysis across secondary education, postsecondary education, and employment. NCSET White Paper. Retrieved June 27, 2007 from http://www.rrtc.hawaii. edu/documents/products/phase3/01.pdf
- Stone, D. L. & Colella, A. (1996). A model of factors affecting the treatment of disabled individuals in organizations. *The Academy of Management Review* 21: 352–401.
- Stone, D. L., & Sawatzki, B. (1980). Hiring bias and the disabled interviewee: Effects of manipulating work history and disability information of the disabled job applicant. *Journal of Vocational Behavior* 16: 96–104.
- Storey, K. (2003). A review of research on natural support interventions in the workplace for people with disabilities. *International Journal of Rehabilitation Research* 26 (2): 79–84.
- Suchman, A. I. (2006). Transition for youth with disabilities: A look at state programs, progress, and promising practices. Center for Workers Disabilities. Retrieved June 27, 2007 from http:// www.aphsa.org/disabilities/publications/docs/Transition%20for%20Youth%20With%20Disabi lities%20FINAL.pdf

- Suff, R. (2006). Unlocking potential: Barclays' disability mentoring scheme. *IRS Employment Review* (March 24): 17–20.
- Szymanski, E. M., Enright, M. S., Hershenson, D. B., & Ettinger, J. M. (2004). Career development theories, constructs, and research: Implications for people with disabilities. In E. M. Szymanski & R. M. Parker (Eds.), *Work and disability: Issues and strategies in career development and job placement*, 91–154. Austin, TX: Pro-Ed.
- Tahmincioglu, Eve; The New York Times, July 20, 2003, "By Telecommuting; the Disabled Get a Key to the Office, and a Job," Section 10, 1.
- Taylor, L., & Polk, C. (2000, August 1). Office machines everyone can use. *GovExec.com*. Retrieved June 27, 2007 from http://www.govexec.com/features/0800/0800specials4.htm
- Teich, J. L., & Buck, J. A. (2003). Datapoints: Mental health services in Employee Assistance Programs, 2001. *Psychiatric Services* 54 (5): 611.
- Terrell-Lindsay, S. Y., & Matthews, B. (2002). Computer/Electronic Accommodations Program (CAP). *Work* 18 (2): 205–06.
- ThinkCollege.net. (2006a). References related to postsecondary education. Retrieved June 19, 2006, from http://www.thinkcollege.net/resources/index.php?page=references
- ----. (2006b). The new frontier. Retrieved June 19, 2006, from http://www.thinkcollege.net/
- Thomas, L. T., & Thomas, J. E. (1984). The effects of handicap, sex, and competence on expected performance: Hiring and salary recommendations. *Journal of Applied Rehabilitation Counseling* 16: 19–23.
- Thornton, P., & Lunt, N. (1997). *Employment policies for disabled people in eighteen countries: A review.* Social Policy Research Unit, University of York.
- Trace Research and Development Center. (2003). *Trace Center*. University of Wisconsin-Madison. Retrieved June 27, 2007 from http://trace.wisc.edu/
- Turner, E., Revell, G., & Brooke, V. (2001). Personal assistance in the workplace: A customer-directed guide. Retrieved June 27, 2007 from http://www.worksupport.com/resources/ viewContent.cfm/129.
- Unger, D. D. (1999). Workplace supports: A view from employers who have hired supported employees. *Focus on Autism and Developmental Disabilities* 14 (3).

¹ Includes references from all of the issue briefs.

- Unger, D., & Kregel, J. (2003). Employers' knowledge and utilization of accommodations. *Work* 21 (1): 5–15.
- Unger, D., Kregel, J., Wehman, P., & Brooke, V. (2002). Employers' views of workplace supports: VCU Charter Business Roundtable's national study of employers' experiences with workers with disabilities. Retrieved June 27, 2007 from http://www.worksupport.com/ research/viewContent.cfm/156
- Universal Design Center. (2002, March). *Overview*, Sheridan College. Retrieved June 27, 2007 from http://www.sheridanc.on.ca/udc/content/overview.html
- Universal Design Education Online. (2004). *Certificate programs in universal design*. Retrieved June 27, 2007 from http://www.udeducation.org/learn/ShowCertificateItems.asp
- *Universal Design Newsletter*. (2005). New products, October. Retrieved June 27, 2007 from http://www.universaldesign.com/pdfs/Oct_2005.pdf
- University of Minnesota. (2005). *Accessibility of information technology*. Retrieved June 27, 2007 from http://cap.umn.edu/ait/index.html
- U.S. Access Board. (2006). *Guidelines and standards*. Retrieved March 20, 2006, from http:// www.access-board.gov/gs.htm
- U.S. Department of Justice. (n.d.). ADA business brief: Service animals. Retrieved January 10, 2007, from http://www.usdoj.gov/crt/ada/svcanimb.htm
- U.S. GAO. (2003a). Long term care, federal oversight of growing Medicaid home and community based waivers should be strengthened. Washington, DC: Government Accountability Office, June.
- —. (2003b). Transportation-disadvantaged populations. Many federal programs fund transpor- tation services, but obstacles to coordination persist. GAO-03-698T. Washington, DC: U.S. Government Accountability Office.
- —. (2005). Federal disability assistance: Wide array of programs needs to be examined in light of 21st century challenges, 22–23. GAO-05-626 (June). Retrieved June 27, 2007 from http:// www.gao.gov/new.items/d05626.pdf
- —. (2006). Helping California youths with disabilities transition to work or postsecondary education. GA-06-759SPO (June). Retrieved June 27, 2007 from http://www.gao.gov/new. items/d06759sp.pdf
- Wagner, M. M., & Blackorby, J. (1996). Transition from high school to work or college: How special education students fare, 6 *Future Children*, 103–20. Woodrow Wilson School of Pub-

lic and International Affairs and Brookings Institution. Retrieved June 27, 2007 from http://www.futureofchildren.org/usr_doc/vol6no1ART6.pdf

- Wagner, M., & Cameto, R. (2004). The characteristics, experiences, and outcomes of youth with emotional disturbances, 2 *NLTS2 Data Briefs*, 1–8 (August). Retrieved June 27, 2007 from http://www.ncset.org/publications/nlts2/NCSETNLTS2Brief_3.2.pdf
- Wagner, M., et al. (2005, April). After high school: A first look at the postschool experiences of youth with disabilities, at ES-1. NLTS2, SRI International. Retrieved June 27, 2007 from http://www.nlts2.org/pdfs/afterhighschool_report.pdf
- Wattenburg, T. (2004). Beyond legal compliance: Communities of advocacy that support accessible online learning. *Internet & Higher Education* 7.
- Weiss-Doyel, A. (2002). A realistic perspective of risk in self-employment for people with disabilities. *Journal of Vocational Rehabilitation* 17: 115–24.
- Wheaton, J. E., & Hertzfeld, J. (2002). Ancestry and severity of disability: A national study. *Rehab. Counseling Bull.* 45: 154, 159.
- White House. (2003). President's Statement on the New Freedom Initiative. Retrieved February 10, 2005, from http://www.whitehouse.gov/news/freedominitative/freedominitiative.html
- Wickizer, T. M., Franklin, G. M., Mootz, R. D., Fulton-Kehoe, D., Plaeger-Brockway, R., et al. (2004). A communitywide intervention to improve outcomes and reduce disability among injured workers in Washington State. *Milbank Quarterly* 82 (3): 547–67.
- Wilcox, S. B. (2003, January). Applying universal design to medical devices. *Med. Device & Diagnostic Indus*. Retrieved June 27, 2007 from http://www.devicelink.com/mddi/archive/03/01/006.html
- Wilkerson, B. (2001, November). The business case for accessibility: How accessibility-awareness strengthens your company's bottom line. Retrieved June 27, 2007 from http://www. equalopportunity.on.ca/userfiles/item/23549/BusAccess.pdf
- Willis, S., & Helal, S. (2005). RFID information grid for blind navigation and wayfinding. Proceedings of Ninth IEEE International Symposium on Wearable Computers, 2000, 34–37.
- Wobbrock, J. O., Myers, B. A., Aung, H. H., & LoPresti, E. F. (2004). Text entry from power wheelchairs: EdgeWrite for joysticks and touchpads. *Proceedings of the 6th International* ACM SIGACCESS Conference on Computers and Accessibility, 110–17.
- Wolffe, K. (1999). Using role models in career exploration for students with visual impairments. *Journal of Visual Impairment and Blindness* 93 (12): 798–801.

- Work Incentives Support Center. (2004). Policy and practice brief: Self-employment and the benefits planning process. Ithaca, NY: Cornell University.
- World Wide Web Consortium. (2005a). *Policies relating to Web accessibility*. Retrieved June 27, 2007 from http://www.w3.org/WAI/Policy/
- —. (2005b). Web Accessibility Initiative site map. Retrieved June 27, 2007 from http://www. w3.org/WAI/sitemap.html
- Yasuda, S., Wehman, P., Targett, P., Cifu, D. X., & West, M. (2002). Return to work after spinal cord injury: A review of recent research. *NeuroRehabilitation* 17 (3): 177–86.
- Zaruba, G., Kamangar, F., Huber, M., & Levine, D. (2005). CONNECT: A personal remote messaging and monitoring system to aid people with disabilities. *IEEE Communications Magazine* 43 (9): 101–09.
- Zaslow, J. (2005). When disabled children get too old for public education. *Wall Street Journal*, June 30, D1. Retrieved June 27, 2007 from http://www.careerjournal.com/columnists/ movingon/20050701-movingon.html
- Zeitzer, I. (2002). The challenges of disability pension policy: Three western European case studies of the battle against the numbers. In E. Fultz & M. Ruck (Eds.), *Reforming worker protections: Disability pensions in transformation*. New York: International Labour Organization.
- Zwerling, C., Whitten, P. S., Sprince, N. L., Davis, C. S., Wallace, R. B., Blanck, P., & Heeringa, S. G. (2003). Workplace accommodations for people with disabilities: National Health Interview Survey disability supplement, 1994–95, *Journal of Occupational and Environmental Medicine* 45 (5): 517–25.

Endnotes

¹ The Microsoft information is from Lengnick-Hall (2007), and the IBM information was provided by Millie DesBiens, Global Diversity, IBM.

² Information provided by Millie DesBiens, Global Diversity, IBM.

³ http://www.communityoptionsonline.org/resources/employ_careerdev.htm

⁴ http://www.communityoptionsonline.org/resources/employ_careerdev.htm

⁵ http://www.communityoptionsonline.org/resources/employ_careerdev.htm

⁶ The comparison of management and related occupations is based on calculations using the 2005 American Community Survey conducted by the U.S. Census Bureau, and the comparisons of supervision and promotions are based on calculations using a database of more than 39,000 employees from 14 companies analyzed in Schur et al. (2006).

⁷ One survey found, however, that companies' commitment to ongoing development of employees with disabilities was lower than their commitment to several other disability-related activities (such as retaining employees with disabilities) (Unger et al. 2002).

⁸ These figures are from a database of more than 39,000 employees from 14 companies analyzed in Schur et al. (2006).

⁹ http://www.communityoptionsonline.org/resources/employ_careerdev.htm

¹⁰ Based on Lengnick-Hall (2007) and information provided by Millie DesBiens, Global Diversity, IBM.

¹¹ These figures are from a database of more than 39,000 employees from 14 companies analyzed in Schur et al. (2006).

¹² These figures are from a database of more than 39,000 employees from 14 companies analyzed in Schur et al. (2006).

¹³ These figures are based on an analysis of the 2005 American Community Survey, from the U.S. Census Bureau.

¹⁴ These figures are based on an analysis of the 2001 Work Schedules Supplement to the Current Population Survey, from the U.S. Census Bureau. The differences between employees with and without disabilities are not statistically significant at the 95 percent level.

¹⁵ These figures are based on an analysis of the 2005 American Community Survey, and the 2001 Work Schedules Supplement to the Current Population Survey, from the U.S. Census Bureau.

¹⁶ HCI involves the "design, evaluation and implementation of interactive computing systems for human use, and with the study of the major phenomena surrounding them" (Hewett, Baecker, Card, Carey, Gasen, Mantei, et al. 1996). Human-Computer Interaction. In *ACM SIGCHI Curricula for Human-Computer Interaction*. Retrieved July 28, 2006, from http://sigchi.org/cdg/cdg2. html.

¹⁷ Biosignal interfaces monitor the time series of a bodily function and use this data to generate control commands. HaMCoS relies on the intensity of the signals originating from the muscle; if

they exceed a certain threshold through intentional muscle contractions, the cursor will start or stop moving or change direction. A mouse click is then generated on the basis of lack of movement.

¹⁸ From an IBM internal Web site, supplied by Millie DesBiens, Global Workforce Diversity, IBM.

¹⁹ (1) Equitable Use: [D]oes not disadvantage or stigmatize any group of users.

(2) Flexibility in Use: [A]ccommodates a wide range of individual preferences and abilities.
(3) Simple, Intuitive Use: [E]asy to understand, regardless of . . . experience, knowledge, language skills, or current concentration level.

(4) Perceptible Information: [C]ommunicates necessary information effectively . . . regardless of ambient conditions or . . . sensory abilities.

(5) Tolerance for Error: [M]inimizes hazards and the adverse consequences of accidental or unintended actions.

(6) Low Physical Effort: [E]fficiently and comfortably [used] with a minimum of fatigue.(7) Size and Space for Approach and Use: Appropriate size and space . . . for approach, reach, manipulation, and use, regardless of . . . body size, posture, or mobility

²⁰ See, e.g., Beecher & Paquet (2005) (product design); Demirbilek & Demirkan (2004) (residential design); Edwards (2003) (safety of indoor built environment); Maynard (2003) (kitchen and bathroom products); O'Hara (2004) (Internet product and Web site design); Armstrong (2005) (choosing or building a retirement home); Bors et al. (2004) (built community); Chow (2000) (prison health center design); McLeister (1999) (home design); *Universal Design Newsletter* (2005) (presenting recent, universally designed kitchen, bathroom, and recreational products); and National Endowment for the Arts (2006) (discussing universally designed medication carts, public toilets, elevator systems, signs, phones, kitchen utensils, light switches, and other products).

²¹ Assistive Technology Act of 2004, 29 USCA § 3002(19) (2005).

²² Ibid. (emphasis added); see 15 USCA § 3710(e)(1)(K) (2005) (Federal Laboratory Consortium for Technology Transfer); 29 USCA § 763(b)–(e)(1) (VR); see 20 USCA § 1412(a)(16)(E)(2005) (IDEA) (noting that state and local education agencies must "to the extent feasible, use universal design principles in developing and administering any assessments" to maintain eligibility for IDEA funding); 34 CFR § 200.2(b)(2) (2005) (NCLB) (noting that assessments administered pursuant to the NCLB to measure student achievement "must . . . [b]e designed to be valid and accessible for use by the widest possible range of students, including students with disabilities and students with limited English proficiency.")

²³ See, generally, Bowe (2000) (applying the seven principles of UD to educational programs, practices, and services); Burgstahler et al. (2004) (employing UD distance learning materials, curriculum, and services); Hansen et al. (2005) (presenting an assessment validity framework using UD); Casper and Leuchovius (2005) (discussing use of UD in educational curricula); and Johnstone (2003) (applying UD to valid, large-scale educational assessment).

²⁴ See, generally, Burgstahler et al. (2004) (Web-based learning); O'Hara (2004) (Web design); and Wattenburg (2004) (Web-based learning).

²⁵ See, generally, Marsden et al. (2001) (design of residential environment for serving persons

with dementia); Armstrong (2005) (residential and commercial construction for retirement); McLeister (1999, 78) (discussing the market potential of UD homes); and CEN/CENELEC (2002) (providing guidance for the development of universally designed and accessible products, services, and environments in the European Community).

²⁶ Bühler (2001); Danford (2003); Demirbilek and Demirkan (2004); Meyers and Andresen (2000).

²⁷ See, generally, Oravec (2002) (training a Web development workforce to inform management policy); Saito (2005) (comparing knowledge, use, and benefits of UD in management practices); and Wilkerson (2001) (discussing cost savings to employers of UD versus retrofitted accommodations).

²⁸ States are required by the Individuals with Disabilities Education Improvement Act of 2004 to adopt NIMAS to maintain eligibility for federal special education funding. 20 USCA § 1412(a)(23)(A) (2005). NIMAS directs the production and dissemination of digital versions of instructional materials for easy conversion into materials that meet the individual needs of diverse learners (American Foundation for the Blind 2006). This aim is consistent with the UD principles of Equitable Use and Flexibility in Use.

²⁹ See Bowe (2000) (discussing "Universally Designed Education"); Rose and Meyer (2000). See, generally, Müller and Tschantz (2003) and note 6 for resources addressing "Universal Design for Learning."

³⁰ NCD's comprehensive 2004 study of UD analyzed its use across six product lines—ATMs, cell phones, personal digital assistants, distance learning software, voice-recognition software, and televisions (NCD 2004, 13–14, 38, 90–172). The NCD report represented UD as "a process to ensure that E&IT is inclusive, accessible, and usable by everyone, including people with disabilities. . . . Incorporating UD processes when developing E&IT is one solution to accommodating people with disabilities that also improves the usability of the products for the rest of the population" (NCD 2004, 23). "These principles serve as guidelines for the designers of accessible products. If these principles are incorporated into and considered during the design process, the result will be products that are accessible to a wide range of users" (NCD 2004, 26).

³¹ NCD (2004, 24); Marsden et al. (2001, 310); Maynard (2003, 73–74); Armstrong (2005, 104); Bors et al. (2004, 25–26, 35); McLeister (1999, 78–87).

³² SMART Technologies (2006).

³³ Bowe (2000, 5–6, 66–67). See, generally, Cotelco (2006) (discussing geographically distributed collaboration and learning initiatives).

³⁴ The Department of Education endorses NIMAS by requiring states to adopt NIMAS to maintain their eligibility for federal funds pursuant to the Individuals with Disabilities Education Improvement Act of 2004. 20 USCA § 1412(a)(23)(A) (2005). For more information, see Center for Applied Special Technology (2005); see discussion at note 11.

³⁵ AD-AS, *Workplace Collection*, at http://www.ad-as.com/wp (retrieved March 30, 2006); Taylor and Polk (2000); Wilcox (2003); McClintic and Williams (2003); and Lowe's (2006).

³⁶ The international UD conferences sponsored by Adaptive Environments have received attention and support from large corporations, including Toyota, Fuji, and Panasonic among more than 20 others (Marcus 2003).

³⁷ Figures based on analysis of the 2005 American Community Survey, from the U.S. Census Bureau.

³⁸ Figures based on analysis of the 2005 American Community Survey, from the U.S. Census Bureau.

³⁹ Unpublished data from an analysis of PUMS data from the 2003 American Community Survey. People with disabilities are identified using the U.S. Census questions and definitions.

⁴⁰ Unpublished data from the 2002 National Transportation Availability and Use Survey. People with disabilities are identified using the U.S. Census questions and definitions.

⁴¹ Only 47 percent of working-age people with disabilities who drive report that they drive seven days per week, compared with 70.7 percent of the working-age population without disabilities. People with disabilities also place more restrictions on their driving behavior. Even after adjusting for the impact of age on driving behavior, people with disabilities tend to avoid driving at night or during bad weather and they are more likely to avoid driving during rush hour and to avoid new or unfamiliar roads or locations (compared with the working-age population without disabilities).

⁴² Unpublished data from an analysis of PUMS data from the 2003 American Community Survey. People with disabilities are identified using the U.S. Census questions and definitions.

⁴³ In 2004, only 37.5 percent of persons ages 21 to 64 who had a disability (using the U.S. Census definition) were employed, compared with 77.8 percent of the population without disabilities (Cornell RRTC 2005).

⁴⁴ The 1994 and 1995 Disability Supplements to the National Health Interview Survey.

⁴⁵ People with disabilities are identified by their self-reported inability to perform specified activities of daily living and instrumental activities of daily living, or by their self-report of a vision or hearing impairment. This definition of disability may undercount persons with mental health disabilities. http://aspe.hhs.gov/daltcp/reports/barriers.htm (retrieved August 18, 2005)

⁴⁶ Disability Program Navigators (DPNs) assist consumers with disabilities in accessing and navigating various programs that can facilitate their ability to gain, return to, or retain employment. This program is sponsored by the Social Security Administration and the U.S. Department of Labor (DOL) to better inform Supplemental Security Income and Social Security Disability Insurance beneficiaries and other individuals with disabilities about work support programs now available at DOL-funded One-Stop Career Centers. Currently, DPNs are funded in 30 states.

⁴⁷ Unpublished data tabulation from the DPN telephone survey, conducted as part of a 14-state evaluation of the DPN program. The survey was conducted from September 2004 through February 2005 by the Law, Health Policy & Disability Center at the University of Iowa College of Law.

⁴⁸ People with disabilities, as a group, are more likely to have household income levels below the poverty line. According to data on the working-age population compiled from the 2004 American Community Survey, the poverty rate among people with disabilities (ages 21 through 64) was 24.1 percent, compared with 9.1 percent for comparable adults without disabilities (Cornell RRTC 2005). ⁴⁹ Paratransit service must be provided within three-quarters of a mile on either side of a fixed route, with comparable service hours and fares. Paratransit services cannot be limited on the basis of trip purpose or capacity constraints.

⁵⁰ Though we do not know how many passenger trips among people with disabilities were related to employment, the survey data indicate that one-third of all passenger trips were for employment.

⁵¹ More information can be found at http://www.ssa.gov/work/Ticket/ticket_info.html.

⁵² 29 USC §§ 701(b), 2811 (2000); 42 USC § 601(a)(2) (2000).

⁵³ NCD (2000a) (finding a significant lack of service coordination across federal-state-local entities) and NCD (2000b) (finding widespread noncompliance with the transition mandate).

⁵⁴ Also see NCD (2003) ("Resources are often inadequate and disconnected. The type, range, availability of . . . services are often widely discrepant and poorly integrated. . . .") (citing Stodden, Jones, and Chang 2002).

⁵⁵ NCD found that "the vast majority of individuals with disabilities who are employed work at low paying, nonprofessional jobs . . . [that] provide no security, room for advancement, or medical/retirement benefits" (NCD 2003, citing S. Stoddard et al., *Chartbook on Work and Disability in the United States: An InfoUse Report* [NIDRR 1998]).

⁵⁶ An independent evaluation of YTP found that more than 80 percent of participants exit the program in a competitive job or in postsecondary education/training, and two years later 80 percent of those who completed the program maintain their rate of employment or engagement in education/training (Horne and Hubbard 1995).

⁵⁷ States submit their APR to the Office of Special Education Programs at DoE, including under Part B-Cluster V, and outcome data and methods for evaluating the transition and postsecondary outcomes among youths with disabilities. 34 CFR § 80.40 (2005) (requiring APRs); FR Center for Special Education, Annual Performance Report Technical Assistance Document 184–210 (January 2005) (describing essential and model reporting procedures), at http://www. dssc.org/frc/apr_compilation.htm.

⁵⁸ These include the National Center on Secondary Education and Transition, Harvard Graduate School of Education, Woodrow Wilson School of Public Affairs, the Alliance Project at Vanderbilt University, the Institute on Community Integration, and the National Dissemination Center for Children with Disabilities. See Hehir (2002); Lehr and McComas (2005); Mutua and Elhoweris (2002); Wagner and Blackorby (1996); Wagner and Cameto (2004); NICHCY (2003); Alliance Project (1999); and ThinkCollege.net (2006a).

⁵⁹ Though distinguished briefly in this section, a thorough comparison of blending and braiding strategies is beyond the scope of this brief. Successful strategies are presented without differentiation.

⁶⁰ School Readiness Act, Fla. Stat. Ann. § 411.01 (West 2005).

⁶¹ OCL staff have participated in staff exchanges with, and traveled to and received visitors from, nations including Ireland, Japan, New Zealand, Canada, and Australia to share their model system of service coordination. See, e.g., Onondaga Community Living, OCL Visitors and Guests, retrieved June 19, 2006, from http://www.oclinc.org/agency_updates/visits.htm; email

from Pat Fratangelo, OCL executive director, to author (June 19, 2006, 13:17:19 EST). See, generally, Fratangelo et al. (2001). OCL is located in Syracuse, New York.

⁶² These three states in the order they are mentioned are Illinois, Texas, and Michigan. Memorandum, State Department of Education Web site search for use of the "National Longitudinal Transition Study-2."

⁶³ Id. Those states are Alaska, Georgia, Nevada, Oklahoma, Pennsylvania, Tennessee, and Vermont.

⁶⁴ See, generally, Fed. Res. Ctr. Spec. Educ., Annual Performance Reports: Part B (2005) (providing state and territory Part B APRs submitted March 31, 2005), at http://www.dssc.org/frc/part_b.htm.

⁶⁵ See also U.S. GAO (2005), recommending a reassessment of the effectiveness and integration of myriad diffuse federal programs targeting people with disabilities.

⁶⁶ CNY Works is a One-Stop Career Center in the central New York county of Onondaga (including Syracuse) "provid[ing] a single point of entry for Workforce Information—bringing businesses, job seekers, and training providers together with the goal of providing skilled workers for every business and employment for every job seeker." CNY Works Career Center, *Welcome*, http://www.cnyworks.com. Presently, One-Stops in 17 states staff a Disability Program Navigator who tailors these services to workers with disabilities and employers (LHPDC 2005).

⁶⁷ See OSEP (2005, 5); NCSEAM (2004). The overarching transition goal of each state is to raise the state's "percentage of youth with disabilities participating in post-school activities (e.g., employment, education, etc.) [to a level] comparable to that of [the state's] nondisabled youth" OSEP (2005, 187).

- ⁶⁸ The definition of "livable community" used here is derived from NCD (2004).
- ⁶⁹ http://www.hhs.gov/ocr/complianceactiv.html
- ⁷⁰ http://www.hhs.gov/ocr/complianceactiv.html
- ⁷¹ http://www.accses.org/what-is-accses.html
- ⁷² http://www.csh.org/index.cfm?fuseaction=Page.viewPage&pageId=3562&nodeID=81
- ⁷³ http://www.hhs.gov/ocr/complianceactiv.html

⁷⁴ S. 859. October 26, 2005: Senators John Ensign, R-Nev., John Kerry, D-Mass., Rick Santorum, R-Pa., and Debbie Stabenow, D-Mich., today sent a "Dear Colleague" letter to Senate Finance Committee Chairman Charles Grassley, R-Iowa, and Ranking Member Max Baucus, D-Mont., in support of including a modified version of the Community Development Homeownership Tax Credit Act, as proposed in S. 859, in the tax package being developed to help rebuild the Gulf Coast. April 20, 2005: Referred to Senate committee. Status: Read twice and referred to the Committee on Finance.

- ⁷⁵ P.L. 105-285
- ⁷⁶ 20 CFR 662.240
- ⁷⁷ 134 (d)(3)(c) of WIA and 20 CFR 663.200
- ⁷⁸ 134 (d)(4)(d) of WIA and 20 CFR 663.300

⁷⁹ http://new.cms.hhs.gov/IndependencePlus/

⁸⁰ http://www.cms.hhs.gov/medicaid/1915c/

⁸¹ http://www.resna.org/AFTAP/success/index.html

⁸² "Self-Employment and Microenterprise: A Customized Employment Option," University of Montana Rural Institute, http://ruralinstitute.umt.edu/.

⁸³ http://www.worksupport.com/resources/viewContent.cfm/433

⁸⁴ Based on calculations using the 2005 American Community Survey of the U.S. Census Bureau, done for the Employer Demand DRRP located at the Burton Blatt Institute, Syracuse University. Also see Kitchener et al. (2006) for projections of home health care demand and employment.

⁸⁵ Finding added and not part of main body of research (U.S. GAO 2005, 5).

⁸⁶ *Medicaid Reform: A Preliminary Report from the National Governors Association*, June 15, 2005.

⁸⁷ Olmstead v. L.C. (527 U.S. 581 (1999).

⁸⁸ Language added to U.S. Senate Bill, 109th Congress—S.B. 705—to include people with disabilities: Establish an Interagency Council on Meeting the Housing and Service Needs of Seniors, April 5, 2005, to include people with disabilities.

⁸⁹ In 2003, the Social Security Administration and the U.S. Department of Labor's Employment and Training Administration jointly created the DPN initiative to serve selected workforce investment areas and One-Stop Career Centers in 17 states. In July 2006, the DPN initiative expanded to an additional 13 states plus the District of Columbia. The DPN is responsible for improving access and support in One-Stop Career Centers and improving collaboration with other service delivery and funding systems that impact people with disabilities, including Benefits Planning, Assistance, and Outreach programs, Social Security field offices, Medicaid, Vocational Rehabilitation, transportation, and mental health and developmental disability service agencies. More information on the DPN program is available at http://www.doleta.gov/disability/new_dpn_grants. cfm.

⁹⁰ The BLN, chaired by the U.S. Chamber of Commerce, is a national program led by employers in concert with state governors' committees and/or community agencies that engages the leadership and participation of companies throughout the United States to hire qualified job candidates with disabilities. BLNs represent an employer-driven organization that seeks to improve the capacity of its members to effectively employ the talents of people with disabilities. More information on the BLN is available at http://www.usbln.com/.

⁹¹ As authorized by the Ticket to Work and Work Incentives Improvement Act of 1999, the Social Security Administration (SSA) established a grant program called BPAO. Under this program, cooperative agreements (monetary awards) were granted to community-based organizations, called BPAO projects, to provide all SSA beneficiaries with disabilities access to work incentives planning and assistance services. Beginning in October 2006, the BPAO program will be referred to as Work Incentive Planning and Assistance (WIPA). WIPA projects will assist SSA disability beneficiaries with information about work incentives, benefits planning, and making choices about work. More information is available at http://www.ssa.gov/work and http://www. segurosocial.gov/work/WIPA.doc.

⁹² One-Stop Career Centers are designed to provide a full range of assistance to job seekers under one roof. Established under the Workforce Investment Act, the centers offer training referrals, career counseling, job listings, and similar employment-related services. Customers can visit a center in person or connect to the center's information through PC or kiosk remote access. The One-Stop Career Center system is coordinated by the Department of Labor's Employment and Training Administration. More information on One-Stop Career Centers is available at http:// www.dol.gov/dol/topic/training/onestop.htm.

⁹³ FFI is a demonstration program to test the effectiveness of removing barriers that enable people with disabilities to practice the principles of self-determination, increase assets, protect benefits, and lead quality lives. FFI builds on the current 1115 Waiver (CDC+) and the unique Florida Social Security Waiver to explore opportunities to reform the system. FFI raises the income and assets limits to allow people with disabilities to work and explore typical housing ownership, transportation ownership, additional education opportunities, or purchase of a microenterprise. More information on FFI is available at http://apd.myflorida.com/ffi/.

⁹⁴ For more information on the Social Security demonstration, visit http://www.socialsecurity. gov/disabilityresearch/flfreedom.htm.

⁹⁵ The Jacksonville Real\$ense Prosperity Campaign represents a community coalition of companies, agencies, government, educational, nonprofit, and other organizations that are focused on increasing the prosperity of their community by increasing the prosperity of each of the citizens. More information is available at http://www.jaxprosperity.org/.

⁹⁶ IDAs are special savings accounts that are designed to help people build assets for increased financial self-sufficiency and long-term economic security. IDA holders (sometimes called IDA participants) save their own dollars in these accounts for a specified period of time. After reaching their individual savings goal, these savers receive matching funds to be used for a specific purpose. These purposes include but are not limited to buying a home, postsecondary education, starting (or expanding) a small business, and other possibilities including retirement accounts or youth accounts. More information is available at http://www.acf.hhs.gov/assetbuilding/.

⁹⁷ The HS/HT program provides opportunities for students with all types of disabilities to explore exciting careers in science, mathematics, and technology. The program is one of several initiatives of the U.S. Department of Labor's Office of Disability Employment Policy. More information on the HS/HT program is available at http://www.dol.gov/odep/programs/high.htm.

⁹⁸ The Florida Jump\$tart Coalition for Personal Financial Literacy, Inc. (Florida Jump\$tart) seeks to improve the personal financial literacy of Floridians by focusing on the state's youth by promoting and teaching personal finance skills so that individuals can make informed, responsible financial decisions. More information on the Florida Jump\$tart Coalition is available at http://www.fljumpstart.org/.

⁹⁹ WorkSource is a One-Stop Career Center. One-Stop Career Centers are designed to provide a full range of assistance to job seekers under one roof. Established under the Workforce Investment Act, the centers offer training referrals, career counseling, job listings, and similar employment-related services. Customers can visit a center in person or connect to the center's information through PC or kiosk remote access. The One-Stop Career Center system is coordinated by the Department of Labor's Employment and Training Administration. More information on One-Stop Career Centers is available at http://www.dol.gov/dol/topic/training/onestop.htm.

¹⁰⁰ Special rules make it possible for people with disabilities receiving Social Security or SSI to work and still receive monthly payments and Medicare or Medicaid. Social Security calls these rules "work incentives." General information on SSA work incentives is available at http://www. socialsecurity.gov/disabilityresearch/wi/generalinfo.htm.

¹⁰¹ Vurv delivers the world's most innovative and easy-to-use technology to ensure organizations attract, manage, and develop an exceptional workforce and provides solutions for recruitment/applicant tracking, onboarding, performance management, and compensation management. Vurv helps organizations unlock the creative energy, talent, and passion of their people and ensures meaningful alignment between business strategy and the workforce. Vurv helps customers improve employee productivity and generate unmatched cost savings, while enhancing process efficiency and regulatory compliance. More information on Vurv is available at http://www.vurv.com/.

¹⁰² In 2003, the Social Security Administration (SSA) and the U.S. Department of Labor's Employment and Training Administration jointly created the DPN initiative to serve selected workforce investment areas and One-Stop Career Centers in 17 states. In July 2006, the DPN initiative expanded to an additional 13 states plus the District of Columbia. The DPN is responsible for improving access and support in One-Stop Career Centers and improving collaboration with other service delivery and funding systems that impact people with disabilities, including Benefits Planning, Assistance and Outreach (BPAO) programs, Social Security field offices, Medicaid, Vocational Rehabilitation, transportation, and mental health and developmental disability service agencies. More information on the DPN program is available at http://www.doleta.gov/disability/ new_dpn_grants.cfm.

¹⁰³ Section 203 of the Ticket to Work and Work Incentives Improvement Act (TWWIIA) of 1999 directed the secretary of the Department of Health and Human Services (HHS) to establish a grant program to support state efforts to enhance employment options for people with disabilities. The Centers for Medicare and Medicaid Services (CMS) is the designated HHS agency with administrative responsibility for this grant program. The goal of the Medicaid Infrastructure Grant program is to support people with disabilities in securing and sustaining competitive employment in an integrated setting. The grant program will achieve this goal by providing money to the states to develop and implement the core elements of the TWWIIA so as to successfully modify their health care delivery systems to meet the needs of people with disabilities who want to work. More information is available at http://www.cms.hhs.gov/TWWIA/03_MIG.asp.

¹⁰⁴ One-Stop Career Centers are designed to provide a full range of assistance to job seekers under one roof. Established under the Workforce Investment Act, the centers offer training referrals, career counseling, job listings, and similar employment-related services. Customers can visit a center in person or connect to the center's information through PC or kiosk remote access. The One-Stop Career Center system is coordinated by the Department of Labor's Employment and Training Administration. More information on One-Stop Career Centers is available at http:// www.dol.gov/dol/topic/training/onestop.htm.

¹⁰⁵ To be eligible for disability benefits, a person must be unable to engage in SGA. A person who is earning more than a certain monthly amount (net of impairment-related work expenses)

is ordinarily considered to be engaging in SGA. The amount of monthly earnings considered as SGA depends on the nature of a person's disability. The Social Security Act specifies a higher SGA amount for statutorily blind individuals; federal regulations specify a lower SGA amount for nonblind individuals. Both SGA amounts increase with increases in the national average wage index. The monthly SGA amount for statutorily blind individuals for 2006 is \$1,450. For nonblind individuals, the monthly SGA amount for 2006 is \$860. More information is available at http://www.ssa.gov/OACT/COLA/SGA.html#blind.

¹⁰⁶ As authorized by the TWWIIA of 1999, SSA established a grant program called BPAO. Under this program, cooperative agreements (monetary awards) were granted to community-based organizations, called BPAO projects, to provide all SSA beneficiaries with disabilities access to work incentives planning and assistance services. Beginning in October 2006, the BPAO program will be referred to as Work Incentive Planning and Assistance (WIPA). WIPA projects will assist SSA disability beneficiaries with information about work incentives, benefits planning, and making choices about work. More information is available at www.ssa.gov/work and http://www.segurosocial.gov/work/WIPA.doc.

¹⁰⁷ SSI is a federal income supplement program under Title II of the Social Security Act funded by general tax revenues (not Social Security taxes). It is designed to help aged, blind, and disabled people who have little or no income; and it provides cash to meet basic needs for food, clothing, and shelter. More information is available at http://www.ssa.gov/notices/supplementalsecurity-income/.

¹⁰⁸ SSDI is a federal program under Title II of the Social Security Act. It is a cash benefit program for individuals who have worked and paid into FICA (Federal Insured Contribution Act) and who meet the medical eligibility criteria and the SGA test. More information is available at http://www.ssa.gov/disability/.

¹⁰⁹ The Medicaid Buy-In program is an important component of the federal effort to make it easier for people with disabilities to work without losing health benefits. Authorized by the Balanced Budget Act of 1997 and the TWWIIA of 1999, the Buy-In program allows states to expand Medicaid coverage to workers with disabilities whose income and assets would ordinarily make them ineligible for Medicaid. States can also customize their Buy-In programs to their unique needs, resources, and objectives. This flexibility, combined with state-level differences in the traditional Medicaid program, causes the Buy-In program to vary from state to state.

¹¹⁰ The Job Accommodation Network (JAN) is a free consulting service designed to increase the employability of people with disabilities by a) providing individualized work site accommodations solutions, b) providing technical assistance regarding ADA and other disability-related leg-islation, and c) educating callers about self-employment options. More information is available at http://www.jan.wvu.edu/.

¹¹¹ Governor Doyle and the State of Wisconsin Department of Workforce Development proposed a federal agency interdepartmental pilot demonstration program to address the financial disincentives to viable, competitive employment for people with disabilities. Entitled Making Work Pay: Eliminating Financial Disincentives to Employment for People with Disabilities, this effort will target individuals with disabilities who continue to receive public supports while employed. Some workers with significant disabilities may have disability-related expenses that cannot completely be covered through earned income. To maintain their ability to live in the community, they often receive public assistance with housing, transportation, personal-assistance services, medical costs, and so on. Over the seven-year grant period, this pilot demonstration program will operate statewide. Enrollees will participate in an integrated system of public assistance aimed at increasing their community integration status while living and working with a disability. The Making Work Pay demonstration has the added benefit of eliminating concerns related to sustaining community integration during periods of employment disruptions. The employed individual will make an after-tax earned income "benefit assurance" contribution toward his or her combined public benefits package.

¹¹² In 2003, the Social Security Administration (SSA) and the U.S. Department of Labor's Employment and Training Administration jointly created the DPN initiative to serve selected workforce investment areas and One-Stop Career Centers in 17 states. In July 2006, the DPN initiative expanded to an additional 13 states plus the District of Columbia. The DPN is responsible for improving access and support in One-Stop Career Centers and improving collaboration with other service delivery and funding systems that impact people with disabilities, including BPAO programs, Social Security field offices, Medicaid, Vocational Rehabilitation, transportation, and mental health and developmental disability service agencies. More information on the DPN program is available at http://www.doleta.gov/disability/new_dpn_grants.cfm.

¹¹³ The JWOD program creates jobs and training opportunities for people who are blind or who have other severe disabilities, empowering them to lead more productive and independent lives. Its primary means of doing so is by requiring government agencies to purchase selected products and services from nonprofit organizations employing such individuals. More information is available at http://www.jwod.com.

¹¹⁴ The Rehabilitation Services Administration (RSA) oversees formula and discretionary grant programs that help individuals with physical or mental disabilities to obtain employment and live more independently through the provision of such supports as counseling, medical and psychological services, job training, and other individualized services. RSA's major Title I formula grant program provides funds to state vocational rehabilitation agencies to provide employment-related services for individuals with disabilities, giving priority to individuals who are significantly disabled. More information is available at http://www.ed.gov/about/offices/list/osers/rsa/index.html.

¹¹⁵ Access-A-Ride provides transportation to passengers with disabilities in the Denver metro area who are unable to use the regular bus system and who qualify for certification under the guidelines established by the ADA of 1990. The Access-A-Ride program is open to people with disabilities in these categories: a) persons unable to board, ride, or exit a wheelchair-lift-equipped bus; b) persons who do not have access to a Regional Transportation District bus with a wheelchair lift; and c) persons whose disability does not allow them to travel to and from the bus stop. More information is available at http://www.rtd-denver.com/SpecialRides/access-a-ride/index.html.

¹¹⁶ According to the National Alliance on Mental Illness, most people at one time or another experience obsessive thoughts or compulsive behaviors. Obsessive-compulsive disorder occurs when an individual experiences obsessions and compulsions for more than an hour each day, in a way that interferes with his or her life. OCD is often described as "a disease of doubt." Sufferers experience pathological doubt because they are unable to distinguish between what is possible, what is probable, and what is unlikely to happen. More information is available at http://www.

nami.org/Template.cfm?Section=By_Illness&Template=/TaggedPage/TaggedPageDisplay. cfm&TPLID=54&ContentID=23035.

¹¹⁷ The U.S. Equal EEOC enforces Title VII of the Civil Rights Act of 1964, the Equal Pay Act of 1963, the Age Discrimination in Employment Act of 1967, Title I and Title V of the ADA of 1990, Sections 501 and 505 of the Rehabilitation Act of 1973, and the Civil Rights Act of 1990. EEOC also provides oversight and coordination of all federal equal employment opportunity regulations, practices, and policies. More information is available at http://www.eeoc.gov.

¹¹⁸ Certain federal employees and certain employees in the private sector are required to have security clearances because their job requires them to have access to classified documents. Various other work takes place in secured facilities. The occupant of any such job is said to hold a sensitive position, defined as "any position, [which,] by virtue of its nature, could bring about a material adverse effect on national security." At any given time, there are about 3 million people with security clearances. In addition, there are about 1.5 million security clearances in the hands of private contracting or consulting firms. Contractors participate in what is called the industrial security program administered by the Defense Industrial Security Clearance Office, which is part of the Joint Information Systems Technology, a military agency. More information is available at http://www.taonline.com/securityclearances.

¹¹⁹ Driving under the influence (DUI), commonly called "drunk driving," refers to operating a motor vehicle while one's blood alcohol content is above the legal limit set by statute, which supposedly is the level at which a person cannot drive safely. State statutes vary as to what that level is, but it ranges from .08 to .10. Driving on private property such as a parking lot is no defense, but sitting in a nonmoving vehicle without the ignition on probably is (sometimes resulting in a charge of "drunk in and about a vehicle"). This is a misdemeanor and is variously referred to as DUI, driving while intoxicated (DWI), drunk driving, or a "deuce." More information is available at http://legal-dictionary.thefreedictionary.com/DUI.

¹²⁰ Employers covered by ADA are required to meet various responsibilities concerning reasonable accommodations for employees with disabilities. Three tax incentives are available to employers: Small Business Tax Credit (IRS Code Section 44, Disabled Access Credit), which can be used by certain small businesses for architectural changes, equipment, or services such as sign language interpreters; Architectural/Transportation Tax Deduction (IRS Code Section 190, Barrier Removal), which can be used by businesses of any size to make architectural and transportation modifications; and Work Opportunity Tax Credit, which is currently awaiting congressional reauthorization and which benefits certain employers who hire certain targeted low-income groups, including Social Security Disability Insurance recipients or certified vocational rehabilitation referrals. For more information about these tax incentives, visit the U.S. Department of Labor's Office of Disability Employment Policy Web site at www.dol.gov/odep and the "Employment" section of www.DisabilityInfo.gov.

¹²¹ The National Institute on Disability and Rehabilitation Research has established 10 regional ADA & IT Technical Assistance Centers to provide information, training, and technical assistance to employers, people with disabilities, and other entities with responsibilities under ADA. The centers act as a one-stop, central, comprehensive resource on ADA issues in employment, public services, public accommodations, and communications. Each center works closely with

local business, disability, governmental, rehabilitation, and other professional networks to provide ADA information and assistance. More information is available at http://www.dbtac.vcu.edu.

¹²² The mission statement for the DOL VETS program is to provide veterans and transitioning service members with the resources and services to succeed in the 21st century workforce by maximizing their employment opportunities, protecting their employment rights, and meeting labor-market demands with qualified veterans today. More information on the VETS program is available at http://www.dol.gov/vets/.

¹²³ In 2003, the Social Security Administration (SSA) and the U.S. Department of Labor's Employment and Training Administration jointly created the DPN initiative to serve selected workforce investment areas and One-Stop Career Centers in 17 states. In July 2006, the DPN initiative expanded to an additional 13 states plus the District of Columbia. The DPN is responsible for improving access and support in One-Stop Career Centers and improving collaboration with other service delivery and funding systems that impact people with disabilities, including Benefits Planning, Assistance and Outreach programs, Social Security field offices, Medicaid, Vocational Rehabilitation, transportation, and mental health and developmental disability service agencies. More information on the DPN program is available at http://www.doleta.gov/disability/ new_dpn_grants.cfm.

¹²⁴ The DOL VETS program, through cooperative efforts with, and grants to, each state, offers employment and training services to eligible veterans through two principal programs: the DVOP and the Local Veterans' Employment Representative program. DVOP specialists develop job and training opportunities for veterans, with special emphasis on veterans with service-connected disabilities. DVOP specialists provide direct services to veterans, enabling them to be competitive in the labor market. They provide outreach and offer assistance to disabled and other veterans by promoting community and employer support for employment and training opportunities, including apprenticeship and on-the-job training. DVOP specialists work with employers, veterans' organizations, the Department of Veterans' Affairs (VA) and Department of Defense, and community-based organizations to link veterans with appropriate jobs and training opportunities. More information on DVOP specialists is available at http://www.dol.gov/vets/programs/fact/Employment_Services_fs01.htm.

¹²⁵ The Recovery and Employment Assistance Lifelines (REALifelines) initiative is a joint project of the U.S. Department of Labor, the Bethesda Naval Medical Center, and the Walter Reed Army Medical Center to create a seamless, personalized assistance network to ensure that seriously wounded and injured service members who cannot return to active duty are trained for rewarding new careers in the private sector. The program creates a new team to work full-time with America's recovering wounded. Dedicated professionals stationed onsite will meet personally with each wounded veteran at the Walter Reed and Bethesda Naval hospitals. They will help each person discover his or her special interests and unique talents. They will help each veteran find the right career path to suit his or her special needs. And they will be there to answer questions and provide insight into the processes of choosing job-training opportunities and career paths. More information on REALifelines is available at http://www.dol.gov/vets/programs/ Real-life/main.htm.

¹²⁶ The DOL VETS program, through cooperative efforts with, and grants to, each state, offers

employment and training services to eligible veterans through two principal programs: the DVOP and the LVER program. LVERs are state employees located in state employment service local offices to provide assistance to veterans by supervising the provision of all services to veterans furnished by employment service employees, including counseling, testing, and identifying training and employment opportunities; monitoring job listings from federal contractors to see that eligible veterans get priority in referrals to these jobs; monitoring federal department and agency vacancies listed at local state employment service offices and preliminary processing of complaints from veterans about the observance of veterans' preference by federal employers; promoting and monitoring the participation of veterans in federally funded employment and training programs; cooperating with the VA to identify and aid veterans who need work-specific prosthetic devices, sensory aids, or other special equipment to improve their employability; and contacting community leaders, employers, unions, training programs, and veterans' service organizations to be sure eligible veterans get the services to which they are entitled. More information on LVERs is available at http://www.dol.gov/vets/programs/fact/Employment_Services_fs01.htm.

¹²⁷ The DOORS initiative is engaging adults with disabilities, with a focus on veterans, in service opportunities that will build the economic empowerment of individuals, families, and communities. This is a program of the Points of Light Foundation & Volunteer Center National Network, in partnership with AARP Tax-Aide, the Internal Revenue Service, the National Federation of Community Development Credit Unions, the National Disability Institute, and the Veterans of Foreign Wars of the U.S. The DOORS initiative is creating model programs in 20 communities. These areas are engaging people with disabilities locally, training nonprofits to work with volunteers with disabilities, and addressing the economic challenges faced by this group as well as individuals and families in low-income areas.

¹²⁸ The Ad Council is a private, nonprofit organization that marshals volunteer talent from the advertising and communications industries, the facilities of the media, and the resources of the business and nonprofit communities to deliver critical messages to the American public. The Ad Council produces, distributes, and promotes thousands of public service campaigns on behalf of nonprofit organizations and government agencies in issue areas such as improving the quality of life for children, preventative health, education, community well-being, environmental preservation, and strengthening families.

¹²⁹ The One-Stop Career Center system is coordinated by the Department of Labor's Employment and Training Administration (ETA). One-Stop Career Centers are designed to provide a full range of assistance to job seekers under one roof. Established under the Workforce Investment Act, the centers offer training referrals, career counseling, job listings, and similar employmentrelated services. Customers can visit a center in person or connect to the center's information through PC or kiosk remote access. More information on One-Stop Career Centers is available at http://www.dol.gov/dol/topic/training/onestop.htm.

¹³⁰ The Workforce Investment Act (P.L. 105-220) was signed into law August 7, 1998, and provides the framework for a unique national workforce preparation and employment system designed to meet both the needs of the nation's businesses and the needs of job seekers and those who want to further their careers. Title I of the legislation is based on the following elements: Training and employment programs must be designed and managed at the local level where the needs of businesses and individuals are best understood. Customers must be able to conveniently access the employment, education, training, and information services they need at a single location in their neighborhoods. Customers should have choices in deciding the training program that best fits their needs and the organizations that will provide that service. They should have control over their own career development. Customers have a right to information about how well training providers succeed in preparing people for jobs. Training providers will provide information on their success rates. Businesses will provide information and leadership and play an active role in ensuring that the system prepares people for current and future jobs. More information on WIA is available at http://www.doleta.gov/USWORKFORCE/wia/act.cfm.

¹³¹ HIPAA was enacted in 1996. Title I of HIPAA protects health insurance coverage for workers and their families when they change or lose their jobs. Title II, the Administrative Simplification (AS) provisions, requires the establishment of national standards for electronic health care transactions and national identifiers for providers, health insurance plans, and employers. The AS provisions also address the security and privacy of health data. The standards are meant to improve the efficiency and effectiveness of the nation's health care system by encouraging the widespread use of electronic data interchange in the U.S. health care system. More information on HIPAA is available at http://www.hipaa.org/.

¹³² The Standards for Privacy of Individually Identifiable Health Information ("Privacy Rule") establishes, for the first time, a set of national standards for the protection of certain health information. The U.S. Department of Health and Human Services (HHS) issued the Privacy Rule to implement the requirement of HIPAA. The Privacy Rule standards address the use and disclosure of individuals' health information (called "protected health information") by organizations subject to the Privacy Rule (called "covered entities"), as well as standards for individuals' privacy rights to understand and control how their health information is used. Within HHS, the Office for Civil Rights has responsibility for implementing and enforcing the Privacy Rule with respect to voluntary compliance activities and civil money penalties. More information on the HIPAA Privacy Rule is available at http://www.hhs.gov/ocr/hipaa/.

¹³³ The Department of Defense Military Severely Injured Center is sponsoring Operation Warfighter, a temporary assignment or internship program for service members who are undergoing therapy at military treatment facilities in the United States. Operation Warfighter is designed to provide recuperating service members with meaningful activity outside of the hospital environment that assists in their wellness and offers a formal means of transition back to the military or civilian workforce. More information on Operation Warfighter is available at http://www. militaryhomefront.dod.mil/.

¹³⁴ CAP provides assistive technology and services to people with disabilities, federal managers, supervisors, and information technology professionals. CAP increases access to information and works to remove barriers to employment opportunities by eliminating the costs of assistive technology and accommodation solutions. The under secretary of defense for personnel and readiness established CAP in 1990 as the centrally funded reasonable accommodations program for employees with disabilities in the DoD. Following the National Defense Authorization Act of October 2000, Congress granted CAP the authority to provide assistive technology, devices, and services free of charge to federal agencies that have a partnership agreement with CAP. The TRI-CARE Management Activity, a field activity in the Office of the Assistant Secretary of Defense (Health Affairs), serves as the executive agent for CAP. More information on the CAP program is

available at http://www.tricare.mil/cap/.

¹³⁵ VI/CWT is a Department of Veterans' Affairs vocational rehabilitation program that endeavors to match work-ready veterans to competitive jobs, to provide workplace supports as needed, and to consult with business and industry regarding their specific employment needs. Utilizing a professional approach, VI/CWT program staff specialize in working with human resource personnel to address labor force deficits. VI/CWT veterans have been successfully employed with industry, filling competitive positions in health care, information technology, manufacturing, warehousing, construction trades, clerical and office support, retail, and the services delivery industry. More information on the VI/CWT program is available at http://www1.va.gov/Vetind/.

¹³⁶ Griffin-Hammis Associates (GHA), LLC, is a full-service consultancy specializing in developing communities of economic cooperation. GHA specializes in community rehabilitation improvement, job creation and job site training, employer development, Social Security benefits analysis and work incentives, self-employment feasibility and refinement, management-leadership mentoring, and civic entrepreneurship. GHA customers are wide ranging and include businesses, community rehabilitation programs, state and local governments, universities, individuals, and others from the public and private sectors. More information on GHA and Cary Griffin and Dave Hammis is available at http://www.griffinhammis.com/.

¹³⁷ The Cobb Douglas County Community Services Board is a public agency created by state law to provide mental health, developmental disability, and substance abuse services. The service areas are Cobb, Douglas, and Cherokee counties, Georgia. The agency provides support to over 14,000 people annually. The majority of funds utilized to provide services are generated through a contract with the state of Georgia, Medicaid and Medicare revenue, Cobb County, Douglas County, Vocational Rehabilitation, grants, private pay, and donations. More information on Cobb County is available at http://www.cobbcsb.com/.

¹³⁸ CEGs are one of the projects funded by the Office of Disability Employment Policy at the U.S. Department of Labor to increase the capacity of One-Stop Career Centers to provide seamless and quality employment services for people with significant disabilities. CEGs are strategic planning, demonstration, and systems change grants to improve the quality of employment outcomes for people with disabilities, resulting in competitive jobs in integrated employment settings in the community that provide career advancement and pay at least minimum wage. These projects achieve these outcomes through the provision of customized employment services delivered via the One-Stop delivery system. Customized employment services may include strategies such as job carving, self-employment, supported employment, job restructuring, providing natural supports, and other job development strategies that are individually determined and customized to the needs of the individual. More information is available at http://www.dol.gov/odep/ and http://www.dol.gov/odep/regs/custom.htm.

¹³⁹ The SSI and SSDI programs are the largest of several federal programs that provide assistance to people with disabilities. While these two programs are different in many ways, both are administered by the Social Security Administration and only individuals who have a disability and meet medical criteria may qualify for benefits under either program. More information on SSI and SSDI is available at http://www.ssa.gov/disability/. SSI is a federal income supplement program under Title II of the Social Security Act funded by general tax revenues (not Social Security taxes). It is designed to help aged, blind, and disabled people who have little or no income; and it provides cash to meet basic needs for food, clothing, and shelter. More information is available at http://www.ssa.gov/notices/supplemental-security-income/. SSDI is a federal program under Title II of the Social Security Act. It is a cash benefit program for individuals who have worked and paid into FICA (Federal Insured Contribution Act) and who meet the medical eligibility criteria and the substantial gainful activity (SGA) Test. More information is available at http://www.ssa.gov/disability/.

¹⁴⁰ PASS is an SSI provision to help an individual with a disability spend or save income (other than SSI income) and/or resources for employability investments and work expenses that the Social Security Administration agrees will help the individual move toward a goal that will make him or her financially more self-supporting. More information on PASS is available at http://www.socialsecurity.gov/disabilityresearch/wi/pass.htm.

¹⁴¹ The Medicaid Buy-In program is an important component of the federal effort to make it easier for people with disabilities to work without losing health benefits. Authorized by the Balanced Budget Act of 1997 and the Ticket to Work and Work Incentives Improvement Act of 1999, the Buy-In program allows states to expand Medicaid coverage to workers with disabilities whose income and assets would ordinarily make them ineligible for Medicaid. States can also customize their Buy-In programs to their unique needs, resources, and objectives. This flexibility, combined with state-level differences in the traditional Medicaid program, causes the Buy-In program to vary from state to state. More information on the Medicaid Buy-In is available at http://www.cms.hhs.gov/TWWIA/07_BuyIn.asp.

¹⁴² To be eligible for disability benefits, a person must be unable to engage in SGA. A person who is earning more than a certain monthly amount (net of impairment-related work expenses) is ordinarily considered to be engaging in SGA. The amount of monthly earnings considered as SGA depends on the nature of a person's disability. The Social Security Act specifies a higher SGA amount for statutorily blind individuals; federal regulations specify a lower SGA amount for nonblind individuals. Both SGA amounts increase with increases in the national average wage index. The monthly SGA amount for statutorily blind individuals for 2006 is \$1,450. For nonblind individuals, the monthly SGA amount for 2006 is \$860. More information is available at http://www.ssa.gov/OACT/COLA/SGA.html#blind.

¹⁴³ As authorized by the Ticket to Work and Work Incentives Improvement Act of 1999, the SSA established a grant program called BPAO. Under this program, cooperative agreements (monetary awards) were granted to community-based organizations, called BPAO Projects, to provide all SSA beneficiaries with disabilities access to work incentives planning and assistance services. As of October 2006, the BPAO program began to be referred to as the Work Incentive Planning and Assistance (WIPA). WIPA projects will assist SSA disability beneficiaries with information about work incentives, benefits planning, and making choices about work. More information is available at www.ssa.gov/work and http://www.socialsecurity.gov/work/

¹⁴⁴ The Office of Small Business Development Centers (SBDCs), of the U.S. Small Business Administration, provides management assistance to current and prospective small business owners. SBDCs offer one-stop assistance to individuals and small businesses by providing a wide variety of information and guidance in central and easily accessible branch locations. The program is a cooperative effort of the private sector, the educational community, and federal, state, and local governments. The Office of Small Business Development Centers is an integral component of Entrepreneurial Development's network of training and counseling services. More information on SBDCs is available at http://www.sba.gov/sbdc/.

¹⁴⁵ The Online Women's Business Center, within the Office of Women's Business Ownership of the U.S. Small Business Administration, helps women achieve their dreams and improve their communities by helping them start and run successful businesses, regardless of social or financial disadvantage, race, ethnicity, or business background. The Office of Women's Business Ownership and the Online Women's Business Center are integral components of the Entrepreneurial Development's network of training and counseling services. More information is available at http://www.onlinewbc.gov/.

¹⁴⁶ SCORE Counselors to America's Small Business, which is a resource partner with the U.S. SBA, is America's premier source of free and confidential small business advice for entrepreneurs. SCORE provides resources and expertise to maximize the success of existing and emerging small businesses. SCORE mentors entrepreneurs through one-to-one business-advising sessions on a full range of business topics. In the 1970s, when SCORE chapters were formed, SCORE expanded its services to offer workshops and seminars on a variety of business issues. In 1996, SCORE ventured online and began providing small business advice via email to meet the entrepreneur's need to have service on an around-the-clock basis. More information on SCORE is available at http://www.score.org/.

¹⁴⁷ The estimated 600 microenterprise development organizations (MDOs) operating in the United States exist to support disadvantaged entrepreneurs as they start or expand their businesses. MDOs can increase the chance of business success by bridging the gap between disadvantaged individuals and the tools they need to start and grow successful businesses. With the help of Association for Enterprise Opportunity services, MDOs offer business training, technical assistance, access to capital, and other services to entrepreneurs to assist them in realizing their dream of business ownership. For many low-income entrepreneurs, MDOs represent the only opportunity to access the capital and business tools necessary for business start-up. More information is available at http://www.microenterpriseworks.org/.

¹⁴⁸ In Iowa, DVRS consumers who are in the exploratory stage or for whom self-sufficiency is not eminent may participate in the First Step Program. First Step participants may receive financial assistance grants up to \$2,500 with an approved business plan, and no owner investment is required. Those who pursue self-employment as a means for achieving self-sufficiency may apply for technical and financial assistance from Iowa's Entrepreneurs with Disabilities Program (a cooperative program supported by both DVRS and IDB). The Entrepreneurs with Disabilities Program provides equity grants of up to 50 percent of the essential operating capital required for business start-up or expansion, not to exceed a ceiling of \$10,000. Participants in this program must leverage the remaining capital from other sources, such as owner investment, commercial loans, or friends and family. More information is available at http://www.dol.gov/odep/pubs/business/building.htm.

¹⁴⁹ IDAs are special savings accounts that are designed to help people build assets for increased financial self-sufficiency and long-term economic security. IDA holders (sometimes called IDA participants) save their own dollars in these accounts for a specified period of time. After reaching their individual savings goal, these savers receive matching funds to be used for a specific purpose.

These purposes include, but are not limited to, buying a home, postsecondary education, starting (or expanding) a small business, and other possibilities, including building retirement accounts or youth accounts. More information is available at http://www.acf.hhs.gov/assetbuilding/.

¹⁵⁰ The limit for countable resources for an individual on Supplemental Security Income (SSI) is \$2,000 for an individual and \$3,000 for a couple. The following are considered resources by Social Security Administration: cash, bank accounts, stocks, U.S. savings bonds; land; life insurance; personal property; vehicles; anything else you own that could be changed to cash and used for food or shelter; and deemed resources. Items that are not considered resources include the home you live in and the land it is on; household goods and personal effects; wedding rings and engagement rings; burial spaces for one's self or family members; and one vehicle, regardless of value, if it is used for transportation for you or a member of your household. More information is available at http://www.ssa.gov/notices/supplemental-security-income/text-resources-ussi.htm.

¹⁵¹ States can extend Medicaid coverage to certain disabled people who work. Under Section 4733 of the Balanced Budget Act of 1997, states have the option to provide Medicaid to working people with disabilities whose earnings are too high for them to qualify for Medicaid under existing rules. A person may qualify if he or she is in a family whose net income is less than 250 percent of the national poverty level for its size (i.e., the poverty limit for a family of three is \$16,090 in 2005, so the limit for this program is \$40,225) and meets the definition of "disabled" under the Social Security Act and would be eligible for SSI payments if it were not for his or her earnings. A person is not required to be receiving SSI in order to be eligible under the Medicaid provision. However, if the person is not an SSI recipient, the state decides if he or she is disabled. The fact that the individual is working will not be considered when making the disability decision for this law. More information is available at http://www.socialsecurity.gov/ disabilityresearch/wi/buyin.htm.

¹⁵² There are 1,860 comprehensive One-Stop Career Centers and 1,395 affiliate One-Stop Career Centers across the country. Employers and job seekers can find the services they need at a convenient One-Stop Career Center or find other service provider locations relevant to employment, training, and economic development. More information is available at http://www.servicelocator. org/.

¹⁵³ The Workforce Investment Act of 1998 provides the framework for a unique national workforce preparation and employment system designed to meet both the needs of the nation's businesses *and* the needs of job seekers and those who want to further their careers. The act builds on the most successful elements of previous federal legislation. Just as important, its key components are based on local and state input and extensive research and evaluation studies of successful training and employment innovations over the previous decade. More information is available at http://www.doleta.gov/usworkforce/wia/.

¹⁵⁴ The SSI and Social Security Disability Insurance (SSDI) programs are the largest of several federal programs that provide assistance to people with disabilities. Though these two programs are different in many ways, both are administered by the SSA and only individuals who have a disability and meet medical criteria may qualify for benefits under either program. More information on SSI and SSDI is available at http://www.ssa.gov/disability/. SSI is a federal income supplement program under Title II of the Social Security Act funded by general tax revenues (not Social Security taxes). It is designed to help aged, blind, and disabled people who have little or no

income; and it provides cash to meet basic needs for food, clothing, and shelter. More information is available at http://www.ssa.gov/notices/supplemental-security-income/. SSDI is a federal program under Title II of the Social Security Act. It is a cash benefit program for individuals who have worked and paid into FICA (Federal Insured Contribution Act) and who meet the medical eligibility criteria and the substantial gainful activity (SGA) test. More information is available at http://www.ssa.gov/disability/.

¹⁵⁵ In October 2006, the SSA replaced the Benefits Planning, Assistance and Outreach Program with the Work Incentives Planning and Assistance (WIPA) program. The program was renamed because of an increased emphasis on work incentives, returntowork supports, and jobs for beneficiaries. More information is available at http://www.socialsecurity.gov/work/ServiceProviders/ wipafactsheet.html.

¹⁵⁶ The Benefits Planning Query (BPQY) provides a snapshot of a person's benefits and work history, as it is stored in the SSA's electronic records. A person may request this free report as often as he or she wishes, and use it to help ensure that information SSA has about him or herself is current and correct. Beginning in October 2003 all SSA offices nationwide including the toll-free number have access to the BPQY software and can issue a BPQY report to a person or the person's authorized representative. More information is available at http://www.workworld. org/wwwebhelp/benefits_planning_query_bpqy_.htm.

¹⁵⁷ To be eligible for disability benefits, a person must be unable to engage in SGA. A person who is earning more than a certain monthly amount (net of impairment-related work expenses) is ordinarily considered to be engaging in SGA. The amount of monthly earnings considered as SGA depends on the nature of a person's disability. The Social Security Act specifies a higher SGA amount for statutorily blind individuals; federal regulations specify a lower SGA amount for nonblind individuals. Both SGA amounts increase with increases in the national average wage index. More information is available at http://www.ssa.gov/OACT/COLA/SGA.html.

¹⁵⁸ One of the states piloting this concept is Wisconsin. The Wisconsin SSDI Employment Pilot addresses one of the paramount policy barriers affecting individuals with disabilities interested in pursuing economic self-support through employment. Currently, SSDI beneficiaries who want to test their ability to work and earn at higher levels are often prohibited from doing so by the allor-nothing "cash cliff" imposed through existing policy. This pilot directly eliminates the current "cash cliff" by allowing SSDI beneficiaries to work and earn above SGA (\$860/month in 2006). Rather than an immediate end to the benefit, participants will experience a gradual decline in their SSDI cash payment as their earnings increase. For every \$2 earned above SGA, participants will experience a \$1 decrease in their SSDI payment rather than losing their entire cash benefit. This is critical for individuals with disabilities who want to work more but cannot afford to immediately lose their entire cash benefit. More information is available at http://dhfs.wisconsin. gov/WIpathways/SSDI.htm.

¹⁵⁹ The Ticket to Work and Self-Sufficiency Program is an employment program for people with disabilities who are interested in going to work. The Ticket Program is part of the Ticket to Work and Work Incentives Improvement Act of 1999—legislation designed to remove many of the barriers that previously influenced people's decisions about going to work because of the concerns over losing health care coverage. The goal of the Ticket Program is to increase opportunities and choices for Social Security disability beneficiaries to obtain employment, vocational rehabilita-

tion, and other support services from public and private providers, employers, and other organizations. More information is available at http://www.yourtickettowork.com/program_info.

¹⁶⁰ Maximus, a private company, has been contracted by the SSA to function as the Operations Support Manager and the Ticket Program Data Operations Center Manager. It is Maximus's responsibility to administer oversight and process support necessary to sustain ongoing Ticket Program Operations. More information is available at http://www.yourtickettowork.com/ program_info.

¹⁶¹ If a person is blind and works while receiving Social Security benefits, there are special rules: 1) the person can earn up to \$1,500 a month in 2007 before his or her earnings may affect his or her benefits; and 2) if the person earns too much to receive disability benefits, he or she is still eligible for a disability "freeze." This means that the SSA will not count those years in which the person had little or no earnings because of his or her disability in figuring future benefits. This can help because a person's benefits are based on his or her highest earnings over his or her work life. For more information on special rules for blind persons, ask for *If You Are Blind Or Have Low Vision—How We Can Help* (Publication No. 05-10052). More information is available at http://www.ssa.gov/pubs/10095.html.

¹⁶² One of the biggest concerns SSI beneficiaries have about going to work is the possibility of losing Medicaid coverage. Section 1619(b) of the Social Security Act provides some protection for these beneficiaries. SSI beneficiaries who have earnings too high for a SSI cash payment may be eligible for Medicaid if they meet the above requirements. SSA uses a threshold amount to measure whether a person's earnings are high enough to replace his or her SSI and Medicaid benefits. More information is available at http://www.socialsecurity.gov/disabilityresearch/wi/1619b. htm.

¹⁶³ The mission statement for VETS is to provide veterans and transitioning service members with the resources and services to succeed in the 21st century workforce by maximizing their employment opportunities, protecting their employment rights, and meeting labor-market demands with qualified veterans today. More information is available at http://www.dol.gov/vets/.

164 One of the states piloting youth transition grant waivers is Colorado. Colorado Youth WINS (Work Incentive Network of Supports) is a five-year Youth Transition Process Demonstration funded by the SSA starting September 30, 2003. The overarching goal of the demonstration project is to remove major barriers and disincentives to work for youth ages 14–25 who receive SSI, SSDI, or CDB in order to maximize their economic self-sufficiency and career advancement. The project is utilizing a two-prong approach to achieve this system goal: 1) An I-TEAM located in each selected community and housed at the local Workforce Center will provide specialized and intensive transition services to youth and their families including connecting with Individual Development Accounts. This I-TEAM will consist of a DPN (Disability Program Navigator), benefits planner, and career counselor; and 2) federal waivers (SSA) applied to participating youth to eliminate or greatly reduce many of the current regulatory barriers to employment. Through this demonstration, Colorado was selected to be part of the national evaluation being conducted by Mathematica Policy Research, Inc. Colorado WINS Partners has a contract to participate in this rigorous random assignment evaluation design expected to continue for four years. More information is available at http://www.cowinpartners.org/partner_initiatives.asp.

¹⁶⁵ A blind or disabled child who is a student regularly attending school, college, or university

or a course of vocational or technical training, can have limited earnings that are not counted against his or her SSI benefits. The maximum amount of the income exclusion applicable to a student in 2006 is \$1,460 per month but not more than \$5,910 in 2006. More information is available at http://www.ssa.gov/OACT/COLA/studentEIE.html.

¹⁶⁶ SSA has the following guidelines for disability redeterminations for individuals who attain age 18: 1) We must redetermine your eligibility if you are eligible for SSI disability benefits and i) you are at least 18 years old; and ii) you became eligible for SSI disability benefits as a child (i.e., before you attained age 18); and iii) you were eligible for such benefits for the month before the month in which you attained age 18. 2) We may find that you are not now disabled even though we previously found that you were disabled. More information is available at http://www. ssa.gov/OP_Home/cfr20/416/416-0987.htm.

¹⁶⁷ According to the SSA Web site, a Plan for Achieving Self-Support (PASS) is a plan for your future. A plan lets you use your income or other things you own to help you reach your work goals. For example, you could set aside money to go to school to get specialized training for a job or to start a business. The job that you want should allow you to earn enough to reduce or eliminate your need for benefits provided under both the Social Security and Supplemental Security Income (SSI) programs. A plan is meant to help you get items, services, or skills you need to reach your goals. More information is available at: http://www.ssa.gov/pubs/11017.html.

¹⁶⁸ An IDA is a special bank account that helps you save for your education, the purchase of a first home, or to start a business. You use earnings from your work to set up an approved bank account for an IDA. You contribute money from your earnings from work. With an IDA, your contributions are matched with money from your State's TANF (Temporary Assistance for Needy Families) program or from special funds called "demonstration project" money. The matching money may help you reach your goal sooner. More information is available at: http://www.ssa.gov/notices/supplemental-security-income/spotlights/spot-individual-development.htm.

¹⁶⁹ One of the biggest concerns SSI beneficiaries have about going to work is the possibility of losing Medicaid coverage. Section 1619(b) of the Social Security Act provides some protection for these beneficiaries. SSI beneficiaries who have earnings too high for an SSI cash payment may be eligible for Medicaid if they meet the above requirements. SSA uses a threshold amount to measure whether a person's earnings are high enough to replace his/her SSI and Medicaid benefits. More information is available at: http://www.socialsecurity.gov/disabilityresearch/wi/1619b. htm.

National Council on Disability 1331 F Street, NW, Suite 850 Washington, DC 20004

ADDRESS SERVICE REQUESTED

Official Business Penalty for Private Use, \$300 Media Mail US Postage Paid Permit No. G-279 Empowerment for Americans with Disabilities • October 1, 2007 • National Council on Disability