

# **Employer Perspectives** *on* **Workers with Disabilities**

*A National Summit to  
Develop a Research Agenda*

September 19–20, 2006



Interagency  
Committee on  
Disability  
Research  
[www.icdr.us](http://www.icdr.us)

*Report prepared for:*

**The Interagency Committee on Disability Research  
Interagency Subcommittee on Employment**



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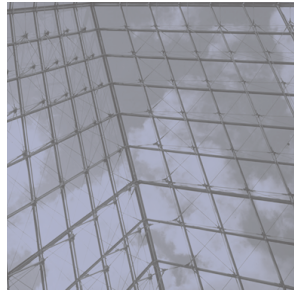
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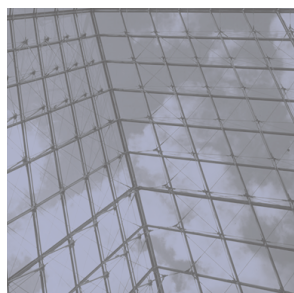
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## Foreword

According to the 2005 American Community Survey, only 38.1 percent of adults ages 21 to 64 with disabilities are employed—a figure less than half that for adults with no disability (77.5 percent).<sup>1</sup> Yet these employment numbers tell only part of the story; unknown is whether people with disabilities are working to their full potential and are able to advance in their careers. Both demand- **and** supply-side employment perspectives are needed to help improve the employment prospects for this underemployed group of Americans. But the demand-side perspective has received considerably less attention than the supply-side. Demand-side research (also called employer-side) can answer questions such as: What are the net costs and benefits of making accommodations for people with disabilities? How do diversity policies in companies affect people with disabilities in the workplace?

To advance employer-side research, new partnerships must be forged and existing partnerships strengthened. Partnerships require members of the research and business communities to step out of their separate worlds and together develop a collaborative approach to addressing research issues. Doing so will require them to bridge fundamental differences of both style and substance. For example, business

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**The Interagency Committee  
on Disability Research (ICDR)  
facilitates the effective exchange  
of federal information on  
disability and rehabilitation  
research activities.**

people communicate in terms of bottom lines and sales, while researchers communicate in terms of longitudinal designs and reliability of data. Business decision-makers need data in real time; researchers collect data over a long period of time.

The Interagency Subcommittee on Employment (ISE) of the Interagency Committee on Disability Research (ICDR) provided an opportunity for researchers and business leaders, as well as service providers, policy-makers, and advocates, to come together at the *Employer Perspectives on Workers with Disabilities: A National Summit to Develop a Research Agenda*. These groups from the public and private sectors met September 19–20, 2006 in

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<sup>1</sup> U.S. Census Bureau, *American Community Survey, 2005 Data Profile*, <http://www.ilr.cornell.edu/edi/disabilitystatistics/index.cfm?n=1> (accessed 1/18/07).



Washington, D.C. to guide the ISE in setting a national research agenda focused on the needs of American businesses in employing people with disabilities. This groundbreaking meeting, which was convened to promote conversation and collaboration across the worlds of business and research, marks the emergence of a new collaborative effort.

Although the research and business communities have different terminology, goals, and information needs, together, both groups can achieve two shared goals: (1) improving understanding of demand- and supply-side concerns within the context of policy, intervention, and outcomes, and (2) supporting further exploration of the topics addressed at the Employment Summit, such as employee health, data needs, and organizational culture.

The Summit marks the beginning of what promises to be one of the most important efforts to address a national problem.

Steven J. Tingus, Chair, Interagency Committee on Disability Research

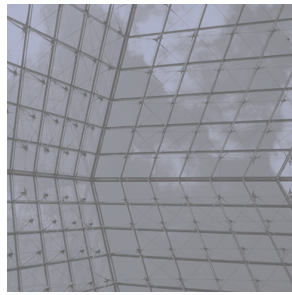
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Richard Horne, Co-chair, Interagency Subcommittee on Employment

Edna Johnson, Co-chair, Interagency Subcommittee on Employment

September 2006





## Introduction

Traditionally, employment research related to people with disabilities has largely targeted the “supply-side”—employee-focused studies of personal and environmental factors that influence employment. These include age and gender, degree of impairment and work history, and access to housing, transportation, and health insurance. Although findings from such research are valuable, they provide an incomplete picture of problems and potential solutions and leave important questions unanswered.

To provide a more complete picture of employment and balance the research agenda, it is crucial to recognize “demand-side” as an equally important part of the equation—employer-focused research on factors that affect employment practices. Among these are the size, culture, and goals of organizations that already employ or may hire people with disabilities. Achieving a balanced, relevant research agenda requires the involvement of business leaders, executives, and line managers who make the hiring and promotion decisions. The ISE held the *Employer Perspectives on Workers with Disabilities: A National Summit to Develop a Research Agenda* to advance this research agenda.

## Summit Goals

The goals for this cross-disciplinary gathering were to:

- Identify gaps, trends, and future directions in disability-related employment research from the employer’s perspective;
- Determine feasible areas for increased collaboration and coordination among federal agencies in this area;
- Disseminate findings of employer-side research; and
- Promote translation of research findings for employers and evidence-based practices.

Together, these goals for the Summit support overarching goals for the nation: to increase the recruitment, hiring, retention, and promotion of people with disabilities, and to enhance their economic status.

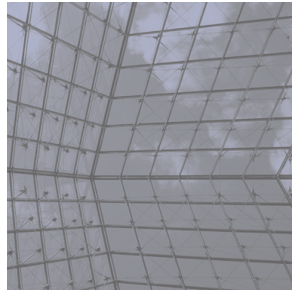
## Describing the Federal Government's Commitment

The Summit drew more than 70 researchers, business leaders, policy-makers, service providers, and advocates (see Appendix B for list of participants). During the meeting, participants heard from leading representatives of the federal disability and employment arenas, such as Steven Tingus, chair of the ICDR and director of the National Institute on Disability and Rehabilitation Research (NIDRR); Olegario D. Cantos VII, Associate Director for Domestic Policy at the White House; and John Hager, Assistant Secretary, Office of Special Education and Rehabilitative Services (OSERS) at the U.S. Department of Education. They spoke of the government's commitment to this endeavor and how it relates to the president's *New Freedom Initiative*, which supports full participation of individuals with disabilities in all aspects of community life and increased employment opportunities across disability populations. They also challenged the business and research communities and the public and private sectors to open and maintain a dialogue on demand-side research.

## Non-Federal Perspectives and Sharing of Information

Researchers from academia, advocacy groups, service providers, and businesses shared information on the employment of people with disabilities and discussed ways to collaborate. Business and industry leaders, such as chief executive officers (CEOs) and human resource directors, described their corporate culture and why they need to know how hiring people with disabilities will affect their bottom line. Marketing and public relations experts explained why researchers, with help from marketers, need to package study results so that they are specifically directed to the business community, and also described strategies to convey those findings, including a recommendation for more case studies. Advocates discussed how they could work with employers to increase employment of people with disabilities. Policy-makers discussed how disability prevention and management programs could keep people employed. The results of the deliberations among these participants appear in this report.

During the Summit, participants expressed their appreciation for the opportunity to explain their needs, values, and goals to one another, and their desire to continue the dialogue. The ISE intends to maintain a forum for ongoing dialogue with business leaders and employment researchers.



## Acknowledgments

The Summit Co-chairs, Constance Pledger and Richard Horne, the Steering Committee members, and the ISE planned *Employer Perspectives on Workers with Disabilities: A National Summit to Develop a Research Agenda*. They dedicated a great amount of time, expertise, and energy to this effort.

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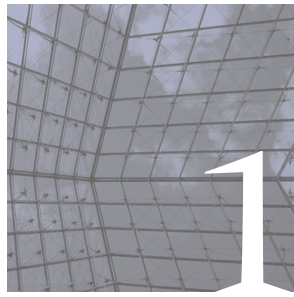
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## The Planning Process

Early planning activities were limited initially to the ISE membership, which later determined the need to expand input. Through the appointment of a Steering Committee composed primarily of members from non-federal organizations, the ISE secured the perspectives of a diverse group of employment experts. It also solicited six white papers from several sectors of the disability and rehabilitation community that reflect the latest research and address the most pressing concerns of these communities and researchers (see Appendix C). Over a period of approximately 18 months, the ISE and the Steering Committee, under the leadership of Summit Co-chairs Constance Pledger and Richard Horne, planned *Employer Perspectives on Workers with Disabilities: A National Summit to Develop a Research Agenda*.

## Selecting Themes and Discussion Topics

Based on ISE preliminary plans submitted to the Steering Committee and the white

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papers, the committee narrowed the focus to six themes and recommended a framework for the Summit. The six themes and some of the discussion topics for each are listed below.

**1. Changing the Employer/Worker Relationship — Methods Contributing to Industry Productivity and a Healthy Workforce.** This theme includes issues such as the changing work culture — more employers allow flexible work schedules, teleworking, and job sharing, and the loyalties of employers and employees toward one another are changing. Employees' loyalty toward their employers is less prevalent as workers tend to switch jobs and even careers multiple times over their lives. Similarly, employers' loyalty toward their employees is less common as American businesses move their operations to other countries and offer fewer benefits, such as health insurance

and retirement packages. How do these trends affect the “business case” for the employment of people with disabilities?

**2. Organizational Culture and Climate Regarding Disability Diversity in the Workforce.** This theme delves into topics such as different types of organizational cultures and the components of each, and how they affect people with disabilities in the workplace. However, an organization’s culture may not be immediately apparent. For example, stated policies on employing people with disabilities may conflict with actual practices. Norms and values of an organization also affect employment practices. An entity that views differing employee backgrounds and perspectives as added value to the organization may be more likely to integrate people with disabilities into its workplace. An important research question is: How do diversity policies in companies affect people with disabilities in the workplace?

**3. Retention, Hiring, and Skills for the Future.** This theme explores employment practices, needs, and concerns. For instance, a major employer concern is retention, and how strategies such as wellness programs and flexible work schedules can encourage people to remain at their jobs long-term. Hiring people with disabilities also raises questions: How do employers find people with disabilities to hire? How do they interview people with disabilities? How do they address accommodations? Organizational factors such as corporate culture and the availability of assistive technology also influence the hiring and retention of people with disabilities. Finally, this theme addresses workforce skills needed in the future and how people with disabilities can prepare for these skills throughout their lifespan.

**4. Business, Health, and Disability Management.** This theme focuses on business’s efforts to promote employee health through wellness and disability management programs. As a result of many factors — such as the high cost of health care and employee training, global competition, and the need for highly skilled and productive workers — businesses are striving to prevent illness and disability. The obesity epidemic in the American population and the aging workforce add to business’s concerns about maintaining a healthy workforce. Another focus is the desire of business to sustain long-term employment of workers. This requires businesses to implement policies that both encourage people with disabilities to remain on the job, and enable workers who become injured or develop limitations and disabilities during the course of employment or under other circumstances to continue working. Such policies could increase employment rates for many, including service members and veterans, those with disabling illnesses such as cancer and arthritis, and those who have experienced disabling accidents outside the workplace. In addition, the implementation of supports such as job re-engineering and job restructuring could create positive outcomes for both employers and employees.

**5. Demographics, Data, and Statistics for Employers.** This theme covers sources of employment data, including the Bureau of Labor Statistics, Census Bureau, Equal Employment Opportunity Commission, and other national health surveys, that provide data on the employment status of people with disabilities and how employers can use these data. It also covers self-disclosure of data and the validity of these data. The value of the data depends on the definition of “people with disabilities” and the



definition of “employment.” This theme addresses questions such as: How can the samples of people with disabilities be expanded in surveys? How can more detailed questions be asked about impairment, activity limitations, and disability? How can methodological concerns such as privacy and comparability of data be addressed? How can the data be collected and disseminated to meet employers’ needs?

**6. The Role and Effect of Government.** This theme speaks to the role of government — through programs, policies, and legislation — in increasing the employment rate of people with disabilities. One legislative example is the Americans with Disabilities Act (ADA), but research is needed on the impact of the ADA on the employment of people with disabilities and enforcement mechanisms. Not only can government set policy, it can serve as a model for others in employing people with disabilities. Another key role the government can play is in creating different models or partnerships between the public and private sectors that can shape employment practices.

## Designing the Meeting Format

After selecting the six content themes for the Summit, the planning group designed a meeting format that would incorporate these themes into working sessions and facilitate interactive, lively exchanges (see Appendix A for agenda). The format the planners selected included the following elements:

**Keynote Presentations.** Keynote speakers presented an overall picture of employer-side research, explained how employers use the research, described the importance and utility of research on corporate cultures, and encouraged partnerships between businesses and researchers.

**Panel: State of the Research.** This three-member panel explored the state of the science on employer-side research, particularly as it relates to industry, policy, and research perspectives. Panelists also described the research literature and key findings; research methods; research gaps, trends, and opportunities; and translation of research.

**Panel: Employers as Customers of Research.** On this panel, several employers discussed topics including research methods and gaps, organizations’ cultures and values, and employer health and productivity concerns. They also discussed how they used research data and their research needs.

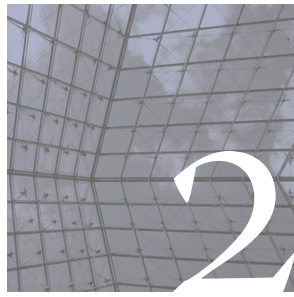
**Panel-led Discussion Sessions.** Summit participants were divided among six sessions for in-depth discussion of the meeting’s themes. In each session, panels of two or three individuals presented research related to one theme and its underlying issues, and then led a discussion. Afterward, the discussion groups reported recommendations to the full Summit on:

- Identifying areas for future research;
- Strengthening the relevance and scientific basis for future disability-related employment research;



- Improving the translation of research findings to inform policy, practice, and program planning and development;
- Improving the translation of research results for an employer audience; and
- Increasing federal interagency coordination, collaboration, and public partnerships.

**Perspectives on the Summit.** In this final general session, two panelists from academia provided their perspectives on the Summit's findings, the strategies identified, and the implications for future action by researchers, employers, service providers, advocates, and the ICDR and ISE.



## Setting the Stage — Views from the Field

Two keynote speakers, Neil Romano and Charles Riley, and two panels, State of the Research and Employers as Customers of Research, set the stage for the panel-led discussion sessions that followed.

### Keynote Presentations

Keynote speakers presented an overall picture of employer-side research, explained how employers use the research, examined the corporate culture, and encouraged partnerships between businesses and researchers.

#### Neil Romano, America's Strength Foundation and The Romano Group

*A leading authority on media and public advocacy, Neil Romano is the president of The Romano Group, a multimedia production and consulting company in Maryland. In 2003, he founded America's Strength, a private organization designed to help people with disabilities find mainstream employment. In March 2006, President Bush appointed him to The President's Committee for People with Intellectual Disabilities.*

The research, policy, and advocacy communities have been working toward increasing the employment of people with disabilities for many years. Unfortunately, their efforts have not created an employer demand. Instead of emphasizing the abilities

of people with disabilities, they have focused on the disabilities, and at times even appear to beg businesses to hire people with disabilities.

---

**// We should demonstrate the value of people with disabilities to employers. //**

—Neil Romano

To generate employer demand, these communities need to generate a belief that people with disabilities can contribute as employees. To generate that belief, they have to **show** the business community that people with disabilities add value to the workplace. This has to be done through research. Until recently, these communities only assumed that people with disabilities added value to the workplace.

Researchers, policy-makers, and advocates need to understand the business world. They need to think in business terms — market, product, and sales. The **market** is

Researchers, policy-makers, and advocates need to understand the business world. They need to think in business terms — market, product, and sales. The **market** is

the business community, the **product** is the person with the disability, and making **sales** is selling people with disabilities to the business community. Researchers need to design research to answer employers' primary question: How will hiring people with disabilities affect their bottom line? Finally, the research needs to be communicated through success stories and case studies to build a case for hiring people with disabilities.

In a recent survey of employers on the employment of people with disabilities, conducted by the University of Massachusetts' Center for Social Research and the Gallup organization, the first question was: What do you think makes a business a good one? The top three responses in rank order were (1) those that offer health care insurance, (2) those that treat the environment well, and (3) those that hire people with disabilities. That same survey showed that 88 percent of the 800 respondents said they would prefer to give their business to companies that hire people with disabilities.

The survey also asked: Have you ever worked with a person with a disability? Among those who had, a majority rated work by people with disabilities as very good, and they appreciated the timeliness, good work, and effort of their co-workers with disabilities, and saw them as part of the team. In addition, an overwhelming majority (99 percent) of those surveyed who received service from a person with a disability felt that the services they received were as good as or better than services they received from others.

The business community's response to this survey has been overwhelmingly positive. This is an example of how research can be designed with the employer — and the bottom line — in mind.

Home Depot and Walgreens are examples of companies that reach out to people with disabilities. For instance, Home Depot has hired people with disabilities and has marketed to the disability community through commercials showing employees with disabilities working in its stores. This form of marketing is more valuable than a public service campaign designed to encourage the employment of people with disabilities, because it shows actual success stories. It also offers encouragement to people with disabilities and their families, and demonstrates to other potential employers the value and competence of people with disabilities in an integrated work environment.

As more people with disabilities become part of the workplace, more businesses will become confident in the value of employing people with disabilities. This will set in motion dynamic social change. Business will demand that people with disabilities be

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**// The greatest barrier to employing people with disabilities is one of closed minds — not because of malevolence but because of fear of change, lack of information, and lack of belief in every person's value. //**

—Neil Romano

better educated, have access to better transportation, and have more advanced assistive devices. In a market-driven economy, business would be the vehicle to social change for people with disabilities.

### **Charles A. Riley, Ph.D., Baruch College**

*Charles Riley is professor at Baruch College and director of the International Center for Corporate Accountability (ICCA). He is the author of the book *Disability and Business: Best Practices and Strategies for Inclusion*, published in 2006, and several articles on business and public policy. Riley has been interviewed on radio and television on the subject of small business and regulatory issues. In 1996 he co-founded WE Magazine, a lifestyle publication for people with disabilities, and served as editor-in-chief until it closed five years later. All WE staff members had disabilities.*

The ICCA, a non-profit company, urges multinational corporations to create and subscribe to voluntary standards that would guide their conduct in overseas operations on a variety of issues, among them wages and working conditions, protection of human rights (including disability), and sustainable development. At overseas factories of companies such as Nike and Mattel, a team of ICCA auditors looks at how the businesses dispose of their environmental waste, treat their workers in general, and hire, retain, and treat people with disabilities in particular. The motivation they offer is not a stick but rather a carrot: ICCA publishes a yearly report and sends it to *Fortune* magazine, *The Wall Street Journal*, and other business-oriented publications as well as socially responsible investment professionals. Businesses pay attention to this report, because a bad “report card” can affect a corporation’s stock price.

### ***Making the Business Case***

In conducting research for *Disability and Business: Best Practices and Strategies for Inclusion*, Riley considered why more corporations are not employing people with disabilities. He concluded that the chief obstacle is lack of data: They don’t know how it would affect their business, primarily because much of this information has not been collected. This lack of data prevents businesses from conducting a SWOT analysis — a planning tool that helps expose the strengths, weaknesses, opportunities, and threats of a business venture. The lack of data largely affects analysis of weaknesses (flaws or weak points in a business model). The strengths, which include factors such as the market of consumers with disabilities and the talent pool, are known; the opportunities are known; and the few threats, such as regulations on hiring people with disabilities, are known — although they often are not enforced. But the weaknesses are unknown because there are not enough data. Without adequate data, it is difficult for companies to make a business case for hiring people with disabilities.

Three major movements are affecting the labor market and disability: the technology-driven rise of the knowledge worker, the clout of the Baby Boomer generation, and — probably the most significant movement — the demand-driven consumer rights revolution, which transferred power from producers to consumers.

Researchers need to analyze how these movements affect business leaders and their employment of people with disabilities. The research results could strengthen the business case for hiring people with disabilities.

### ***Best Practices and Strategies for Inclusion***

Through more than 100 interviews with inside sources at Microsoft, Motorola, SunTrust, and other “disability-forward” companies, Riley identified strategies for successfully incorporating people with disabilities into the workplace. “Disability-forward” companies are those that have successfully integrated people with disabilities into their workplaces and business activities.

**The Trading Zone Strategy.** Setting up a “trading zone” can bring an interdisciplinary approach to employment of people with disabilities. A trading zone is a place where people from different disciplines within a company meet to exchange information about strategies to hire, retain, and promote people with disabilities. It can be done informally or formally and inside or outside of the workplace. For example, people may trade information at scheduled meetings within the workplace or meet over coffee at a café. A trading zone might include representatives from human resources, public relations, marketing, technical services, legal services, office design (relevant to accessibility issues), management, and customer service, as well as the customer and CEO. For example, public relations staff need to learn about and publicize the company’s practices in employing people with disabilities and place case studies in the business sections of newspapers, magazines, and other suitable publications (see Public Relations Strategies subhead). These stories have yet to be told. This trading zone is a place of visibility for the disability community and a place where managers without disabilities can feel comfortable.

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**// Lack of information has kept corporations from recognizing the opportunity that employing people with disabilities offers. //**

—Charles Riley

**Hiring and Marketing Strategies.** By studying companies such as IBM, Merrill Lynch, and Microsoft, Riley has identified a number of successful strategies for hiring people with disabilities. Among these companies, it is common to hire from the community to which they hope to sell. In seeking out candidates, they turn to groups in the disability community such as Career Opportunities for Students with Disabilities and colleges such as Gallaudet University, which is noted for its undergraduate program for deaf and hard-of-hearing students. They mentor people with disabilities in the workplace and make sure accommodations are in place before they launch a disability recruitment effort.

Other companies such as Avis, Mattel, and Universal Studios Home Entertainment provided effective strategies for marketing people with disabilities to employers. For example, they might communicate their corporate commitment in labels,



advertising, packaging, press campaigns, and Web sites, or graft a disability affinity group onto other existing “diversity groups.” Some companies create a customer advisory board or task force to provide guidance, insights, and expertise. It is also important to gain the support of the company’s leadership, and it is helpful to enlist the expertise of the disability grass-roots non-profit organizations.

**Public Relations Strategies.** Good company practices in employing people with disabilities need to be promoted through public relations strategies, as FedEx-Kinko’s and Motorola have done. Public relations strategies include editing copy for media kits and presentations to ensure people-first language (e.g., “people with disabilities” instead of “the disabled”), leading with the disability angle on materials for the specialty press, and positioning articles in the metro, news, and business sections instead of the health and lifestyle sections. Businesses can identify in-house staff members with disabilities who are prepared to represent the company, and they can pitch the people or products, not the disability. If a reporter works on “A Day in the Life” story with a company employee who has a disability, the reporter needs to be able to interview the story subject in private, without a company representative present, to prevent any suggestion that the company does not trust the person to speak for him or herself.

**Design and Architecture Strategies.** It is essential to incorporate design and architecture into a business’s plan for employing people with disabilities. Steelcase and Adaptive Environments are companies that have been successful in this endeavor. Several design and architecture strategies have been found effective. These include letting user-experts — the people who negotiate the hallways, the computers, and the Web site — guide businesses to problems and solutions, and auditing the workplace for design shortcomings for a range of disabilities. On the technology front, it can be helpful to experiment with technology (not all solutions come off the shelf) and automate everything possible with voice-activation and smart technology. Finally, it never hurts to solicit customer and visitor suggestions.

**Strategies to Move Forward.** To move forward in employing people with disabilities, companies can take concrete steps. Companies need to promote the growth of affinity groups dedicated to disability culture, which can become an internal source of innovative ideas and feedback. They need to build teams based on complementary rather than homogeneous strengths (this involves incorporating people with disabilities in the workplace). Cingular Wireless and SunTrust are examples of companies that have successfully adopted some of these strategies.

### ***Disability-forward Companies***

From his research, Riley created a list of the top 50 U.S. disability-forward companies. Consulting with experts in the disability field, he ranked the companies according to their performance in three areas: aggressively recruiting, training, and promoting people with disabilities; investing in assistive technology and accessible workplaces; and recognizing the power of customers with disabilities. The top 10 companies in rank order are IBM, Microsoft, SunTrust, Cingular Wireless, Bank of America, Booz Allen Hamilton, Procter & Gamble, JPMorgan Chase, Merck, and Wells Fargo.

## State of the Science

This three-member panel explored the state of the science on employer-side research, particularly as it relates to industry, policy, and research perspectives. Panelists also described the research literature and key findings; research methods; research gaps, trends, and opportunities; and translation of research.

### Jennifer Schramm, M.Phil., Society for Human Resource Management

*Jennifer Schramm is the manager of the Workplace Trends and Forecasting program at the Society for Human Resource Management (SHRM). She is the author of the SHRM 2004–2005 Workplace Forecast, and a co-author of 2015: Scenarios for the Future of Human Resource Management. She is also responsible for the SHRM/Rutgers Leading Indicator of National Employment (LINE) — the national employment index.*

In an online survey of SHRM members, who represent small, medium, and large companies, more than half (58 percent) said that their organizations employed people with disabilities, but only 19 percent said they actively recruited people with disabilities. To meet the needs of people with disabilities, most of the organizations made accommodations such as providing parking or transportation access, restructuring jobs, and modifying the work environment, but fewer did things such as acquiring or modifying training materials, providing qualified readers or interpreters, and changing supervisory methods.

Among human resource (HR) professionals, the level of awareness of employer incentives (see Figure 1, HR Professionals' Level of Awareness of Employer Incentives) and assistive technologies varied. For example, 87 percent were aware of welfare-to-work tax credits, but only 14 percent were aware of mentoring programs; 44 percent were familiar with screen magnifiers, but only 13 percent were familiar with guidelines for Web design. However, HR professionals are becoming more focused on the issue of disability as they prepare for an aging workforce.

**Figure 1: HR Professionals' Level of Awareness of Employer Incentives\***

Welfare-to-Work Tax Credit	87%
Work Opportunity Tax Credit	72%
Veterans Job Training Act	71%
Disabled Tax Credit	34%
Social Security Administration Employment Network Cash Provision	27%
Architectural/Transportation Tax Deduction	17%
Mentor Program	14%

\* Percentage of HR professionals that have at least some awareness.

Source: SHRM/UTSA/WVSU/CPRF Employer Incentives for Hiring Individuals with Disabilities Survey, 2003.

For example, 54 percent of HR professionals have changed or are planning to change health care policies as a result of an aging workforce. Factors that may increase HR focus on employees with disabilities include retention concerns, a greater focus on community, ethics, and social responsibility, more veterans with disabilities, and an increase in disaster planning efforts.

HR trends may represent an opportunity to raise awareness about the positive



impact of disability employment on retention, employer incentives, assistive technologies, and research findings on recruiting and employing individuals with disabilities. These trends also may challenge false perceptions about the cost of accommodations, job assignment flexibility, absenteeism, and safety. (See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

## Peter Blanck, Ph.D., J.D., Burton Blatt Institute, Syracuse University

*Peter Blanck is a professor and chair of the Burton Blatt Institute at Syracuse University. He has written articles and books on the ADA and related laws, received grants to study disability law and policy, represented clients before the U.S. Supreme Court in ADA cases, and testified before Congress. His work has received national and international recognition.*

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**// We need to study corporations that hire people with disabilities and determine how this adds value. One way of doing this is to create best practices and case studies. //**

—Peter Blanck

itive technology and telecommuting (see the sidebar, Factors That Affect Employer Demand).

- **Corporate culture**, which is comprised of **values** and **beliefs**. Related research questions include: What **value** do people with disabilities add to a business? Do companies consider disability an element of diversity? Researchers have studied this issue: In a study of Fortune 100 companies, only three companies mentioned disability as an element of diversity in their annual reports.
- **Present and future demand for workers**, which can be accomplished by accumulating employer-side research and projecting trends.
- **Accommodation benefits** rather than accommodation cost. Once people are hired, accommodations usually are not a problem: 85–95 percent of accommodations are made for employees. Employers

Employment is the match between labor demand and labor supply. Researchers have focused primarily on the supply side of employment rather than on the demand side. Different elements of demand-side employment that need further study include:

- **Factors that affect employer demand**, such as matching a person's skills with the job and corporate culture. These factors are influenced by sociological and technological changes including the increasing use of assis-

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### Factors That Affect Employer Demand

- Skills match, which translates into employer value;
- The way a company uses its employees (corporate culture);
- The conditions of the changing workforce, such as layoffs, downsizing, and changing economic conditions;
- Changes in law and policy; and
- Environmental and economic characteristics.

want to retain employees because training can be expensive, but at the **hiring stage**, accommodations can be a major problem. Research needs to focus on the hiring side, especially on the costs of accommodations.

Researchers need to reach a consensus in the scientific community on standards for studying these issues and translating the data, to be certain the research is directly relevant to the business community; they need to project trends by accumulating, organizing, and summarizing the research. Because no single study is definitive, meta-analyses are needed.

**Robert Silverstein, J.D.,  
Center for the Study and Advancement of Disability Policy**

*Robert Silverstein is director of the Center for the Study and Advancement of Disability Policy. He has more than 30 years of experience analyzing public policy issues that affect persons with disabilities, including service as Staff Director and Chief Counsel to the U.S. Senate Subcommittee on Disability Policy.*

This presentation reflected an approach for conducting policy-related research set forth in a recent publication co-authored by Silverstein.<sup>1</sup>

***Identifying People with Disabilities***

Researchers need to present data to businesses on the success employers have had in employing people with disabilities. Unfortunately, it is difficult to determine how many people with disabilities are employed, because the measurement depends on the disability definition used. In addition, some people have hidden disabilities and may not perceive themselves as having a disability.

For people who have the skills, experience, and expertise to take a job, the employment rate is approximately 80 percent. Yet, for those who have severe, long-term disabilities, the employment rate is approximately 20 percent. Any employer that hires people with disabilities should be recognized as an employer with a diverse workforce.

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**// Do companies that say they  
have a flexible workplace and  
recognize the value of each  
employee hire more people with  
disabilities? //**

—Robert Silverstein

***Companies' Hiring Practices***

A key research question is: What kind of corporate environment is most conducive to hiring people with disabilities? For example, is it one that has a flexible workplace and recognizes the value of each employee, or a company that has funds allocated for accommodations?

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<sup>1</sup> Silverstein, R., G. Julnes, and R. Nolan. 2005. What policy makers need and must demand from research regarding the employment rate of persons with disabilities. *Behavioral Sciences and the Law* 23:399–448.

Research has shown that companies that have funds for accommodations at a high corporate level, rather than at the department level, are more likely to hire people with disabilities. Individual departments may worry that the cost of accommodations may deplete their budget. To address such employment concerns, the U.S. Department of Labor's Office of Disability Employment Policy (ODEP) is creating roadmaps called "customized employment," which involves negotiating a flexible approach to meet the needs of both the employer and the employee.

### ***Disability Prevention and Management***

Research shows that once someone becomes ill or injured on the job, there is a two-month window of opportunity for preventing long-term disability and keeping that person on the job. Therefore, early intervention is important, and it can be provided through disability prevention and management programs. Further research is needed on the relationships between workers' compensation, long- and short-term disability, and Social Security Disability Insurance (SSDI), as well as to determine why workers' compensation goes down when SSDI goes up. A current federal initiative is aimed at developing an early intervention program to help people avoid the need for SSDI.

Researchers also need to explore incentives the federal government can offer employers to provide better disability prevention and management programs. Two suggestions are: (1) to reduce Federal Insurance Contributions Act taxes by half of a percent for those with a certain experience rating, and (2) to assist in providing accommodations to people who are injured, so they can remain on the job.

## **Employers as Customers of Research**

This three-member panel of employers discussed topics including research methods and gaps; organizations' cultures and values; and employer health and productivity concerns.

### **Ronald Woo, M.B.A., Liberty Mutual Group**

*Ronald Woo is a technical consultant with the Liberty Mutual Group's National Market Loss Prevention Department, where he is responsible for providing safety-related consulting services to the company's commercial clients. Researchers at the Liberty Mutual Group study how to reduce the risk of disabling injuries, and then apply these research results to find ways to reduce such injuries.*

### ***Role of the Intermediary***

Intermediaries (also called champions) are knowledgeable about the corporate world and can help the corporate world and researchers understand one another and establish mutual goals and objectives. In addition, they prepare researchers to sell their research. Before agreeing to participate in a research project, employers

need numerous questions answered, such as: How much time will be involved in conducting the research? What will be the indirect costs (e.g., disruption to the operation) and actual costs? What is in it for us (e.g., will it increase productivity)? How will it affect my bottom line? Intermediaries can assist researchers in answering these questions.

### ***Preparing to Work with Employers***

To improve their chances of converting a prospective client into a research partner, researchers need to take the following steps:

- Understand their client's industry and business, including their culture and values.
- Speak their client's language and use their terminology. For example, they need to know how the company refers to its employees (e.g., associates or partners).
- Ensure that their research project addresses the employer's needs.
- Identify the key players in the company.
- Determine potential detriments to the project, such as using the wrong terminology or having a tight timeframe.

By understanding the prospective client's needs and culture and the researcher's goals and objectives, the intermediary can pave the way for a smooth and productive working relationship between the researcher and employer. (See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

### **Linda Barrington, Ph.D., The Conference Board**

*Linda Barrington is a labor economist at The Conference Board and directs workforce and human resources research as Research Director of the organization's Management Excellence Program.*

### ***Know the Culture of Employers***

Before conducting employer-side research, researchers should uncover the primary concerns of the employer in that capacity. Employers' concerns about the workplace depend on their position, the company's size and industry, and personal ambition. For example, an executive may be most concerned about leaving a legacy of "making a difference" through employing

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**// When researchers talk to employers about research, employers will want to know what's in it for them. //**

—Ronald Woo

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**// To get employers' attention, link research to reducing health care costs, the changing demographics (the aging workforce), and the global workforce. //**

—Linda Barrington

people with disabilities, whereas a functional head of a department may care most about protecting his or her domain.

In 2006, researchers conducted a survey of U.S. CEOs to identify their top 10 challenges in business. They found that CEOs' top two concerns were sustained, steady top-line growth and consistent execution of strategy by top management (a business strategy that is consistently carried out by all layers of management). All CEOs listed employer health care benefits (ranked 7<sup>th</sup>) — which are an enormous competitive disadvantage for U.S. employers — as a major challenge. Outside of the United States, such benefits were ranked 72<sup>nd</sup>. Employers want to know how employing people with disabilities will help them meet such challenges.

### ***Get Employers' Attention***

To catch employers' attention, researchers can link research to reducing health care costs, the changing demographics (the aging workforce), and the global workforce (see the sidebar, Potential Research Topics). Employers will recognize the aging workforce as a potential new talent pool, but one that comes with an increased risk of disability.

### ***Make Data Applicable and Present Data Effectively***

For employers, research data must be current (less than two years old) to be relevant, and presented in creative ways that are useful to them. In presenting data, researchers should:

- Use positive language.
- Use visuals such as PowerPoint slides.
- Present case studies on best practices.
- List recommended actions.
- Present opportunities to save money.

The next step is to disseminate the research results through strategies such as publishing the data in the business press, asking business organizations and presenters to cite the data at meetings and conferences, and partnering with organizations for distribution. (See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

### ***Kathy Durbin, H-E-B***

*In 2001, after almost 20 years in human resources with GTE/Verizon, Kathy Durbin joined H-E-B, a major retailer in Texas, as its Director of Benefits. She has held a variety of business unit and corporate positions within the compensation, benefits,*

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### **Potential Research Topics**

- Mental health and cognitive disabilities (a growing issue);
- Wellness and injury prevention, especially as linked to obesity;
- Reduction of further disability; and
- Demographics.

*internal communication, human resources technology, and change management areas in business unit organizations ranging from 400 to 90,000 active employees and more than 50,000 retirees.*

To identify potential research topics, researchers will need to talk with employers about their needs and, when doing so, be able to understand key business terms that may come up, including “sales,” “profits,” “health care costs,” and “productivity.” Following are some research topics that may emerge during these discussions:

**Future workforce.** Related issues include whether the job structure will change based on health status, whether there will be shortages within certain industries and in certain geographic areas, and what work skills will be required. In the coming years, there may be more disabilities in the general population because of a higher prevalence of obesity.

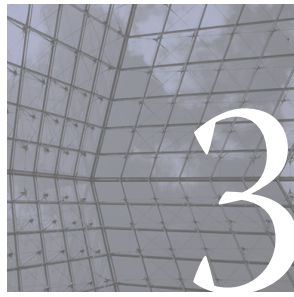
**Return to work after an injury or illness.** Researchers can help determine when people can return to work after an injury or illness and how they can be integrated back into the company. One way to accomplish this is to create a jobs database that includes information about different levels of disability and different interventions.

**Identifying company problems.** To assist employers in determining whether their company has a problem, and if so, the extent of a problem and how to solve it, researchers may want to use tool kits or calculators based on industry, demographics, or geographic locations. Researchers should design this information so it can be easily duplicated; businesses will want to receive copies.

**Effect of government benefits on employment.** It can be difficult to fully employ people with disabilities who get Supplemental Security Income and other government benefits, because these programs limit the number of hours they can work. If they surpass this limit, they may lose some of their benefits. Employers can benefit from research both on how government programs could coordinate benefits programs for people with disabilities, and on how employers could implement policy that allows people with disabilities to continue to collect full benefits while they work.

**Improving employees’ health status.** Saving health care costs by improving employees’ health status is a priority of employers. Partnering with pharmaceutical companies or health plans is one approach to saving health care costs and improving health status.





## Panel-led Discussion Sessions

Summit participants were divided among six sessions for in-depth discussion of the meeting's themes. In each session, panels of two or three individuals presented research related to one theme and its underlying issues, and then led a discussion. Afterward, the discussion groups reported recommendations to the full Summit. This section of the report summarizes the presentations and discussions according to theme.

### Theme 1: Changing the Employer/Worker Relationship—Methods Contributing to Industry Productivity and a Healthy Workforce

**Pamela Loprest, Ph.D., The Urban Institute**

*Pamela Loprest is a labor economist and principal research associate at The Urban Institute. Her research focuses on low-wage labor markets and barriers to work among disadvantaged populations, and policies to address these issues.*

The labor market is changing. There is more global competition (outsourcing of jobs and cost pressures) and increased productivity (a 30 percent increase in the past 15 years of output per worker). As work shifts away from manufacturing and toward the service sector, more jobs require adaptability to changing circumstances. And there is a significant low-wage labor market—35 million Americans, nearly one-quarter of the workforce—that earns less than \$9 per hour.

Employee benefits are declining. Employees are less likely to receive benefits such as health insurance and pensions, especially from small employers (those with fewer than 100 employees), which employ about 40 percent of U.S. workers. But employees are more likely to have flexible work arrangements.

Researchers need to gather information on hiring, specific requirements of the job, employer-provided training and supports, employer-sponsored benefits offered, and attitudes toward and previous experience with hiring persons with disabilities. Unfortunately, it can be difficult to collect data on policies and practices, such as benefits offered and training and promotion practices. (See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)



## Tyler Matney, Employer Assistance and Recruiting Network

*Tyler Matney is Marketing Manager for the Employer Assistance and Recruiting Network (EARN), which is funded by the U.S. Department of Labor's Office of Disability Employment Policy and is a provider of free disability consulting and candidate sourcing services. In this role, he conducts employer outreach, develops employer champions, and builds key business partnerships to advance the employment of people with disabilities.*

In 2004, EARN conducted 26 focus groups nationwide with industries such as banking, construction, hospitality, and telecommunications. Following are examples of participants' comments in three areas.

**Key staffing issues facing employers.** It is difficult to find and retain qualified employees, and challenging to maintain affordable benefits and costs and conduct affordable employee training.

**Perceptions of people with disabilities.** Employers assume that people with disabilities cannot do the type of work the organizations need and that accommodations are costly.

**Message points for making a business case.** When talking to employers about hiring people with disabilities, it is important to emphasize the need to attract qualified employees in a shrinking workforce and to attract employees who have creative problem-solving skills.

Recommendations from focus group participants included addressing employer priorities by using business language, persuading with facts and statistics, informing about the vital role that job accommodations play, promoting employer success stories, and including disability in diversity policy and program discussions.

On the basis of focus group results, the following research topics were recommended:

- Threat of workforce shortage;
- Negative views of outsourcing and off-shoring;
- Employer models;
- Impact of technology;
- Financial benefits of gaining consumers with disabilities for products and services;
- Need to retain organizational knowledge;
- Upcoming labor pool, which includes people with disabilities; and
- Returning veterans.

(See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

## Robert S. Rudney, Ph.D., Booz Allen Hamilton

*Robert Rudney serves as an intelligence and homeland security specialist at Booz Allen Hamilton. He is co-author of a 2006 pro bono study of employment opportunities for people with cognitive disabilities and chairs the Booz Allen Disability Forum, the affinity group for employees with disabilities.*

### **Task Force on Employing People with Disabilities**

Booz Allen Hamilton created a task force to identify the firm's current baseline in attracting and employing people with disabilities, evaluate industry norms and model programs, and make recommendations for improvement. Task force recommendations included establishing a central information repository, developing a communications work plan, and developing an outreach campaign.

### **Study on Future Employment Opportunities**

Researchers at Booz Allen Hamilton conducted a study to analyze future employment prospects for three disability service organizations in their target regions. Findings include:

- **Areas of growth in existing employers.** All three service organizations are heavily dependent on Javits-Wagner O'Day (JWOD) program contracts — a model program that enables people who are blind or have other disabilities to work through community-based organizations to provide high-quality, on-time goods and services to the federal government. According to the study, competition between the JWOD programs and other federal contractors will increase. There is a need to expand the relatively small commercial business outlets, and onsite employment centers are becoming more of a financial burden.
- **Occupational outlook for 2004–2014.** The study listed selected occupations with the largest job growth and those with the largest job decline, and identified new employment opportunities such as the banking and financial industry.
- **Myths about disability employment.** Myths uncovered by the study include the notions that all for-profit companies are by nature philanthropic, job candidates should not address accommodations at the interview stage, and that it is easy to find qualified job candidates with disabilities.

As a result of this study, researchers recommended that a research agenda cover topics such as including people with cognitive disabilities and people with mental illness in federal research initiatives, assessing strategies for reaching corporate decision-makers, and examining recurrent accommodations costs. (See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

# Theme 1: Changing the Employer/Worker Relationship

## Findings

### ***Labor Market Trends***

Three significant and interrelated trends will continue to affect the U.S. labor market: (1) the increase in global competition, (2) the shift of work away from manufacturing toward the service sector, and (3) the rising role of “knowledge workers” in an era increasingly dominated by computers and the need for creative problem-solving skills.

These trends pose considerable challenges. For example, outsourcing of jobs and cost pressures are on the rise, and with a shrinking workforce, it is increasingly difficult to find, attract, and retain qualified employees as Baby Boomers approach retirement. The first Baby Boomers (birth years 1946–1964) turn 60 this year.

### ***Employee Benefits and Work Culture***

In the financial arena, the trend toward declining employee benefits continues as employers find that maintaining affordable benefits and costs becomes more difficult every year. They respond by cutting benefits, which, in turn, passes more financial burden down the line to employees. Employees are now less likely to receive traditional benefits such as health insurance and pensions, especially from small employers—those with fewer than 100 employees—which employ about 40 percent of U.S. workers.

While decreasing benefits such as pensions and comprehensive health care coverage, employers are moving toward alternative incentives to attract and retain a desirable workforce. Today, an employment package is more likely to offer options for work schedules and work sites such as flexible scheduling, telecommuting, and job sharing.

## Recommendations

***Link research on the opportunities offered by employing people with disabilities to demographic trends, the global workforce, and changing employee benefits and work culture.***

### ***Suggestions for Research***

- Determine the skills needed in the current and future (next 10–20 years and beyond) workforce within market sectors and how they will affect people with disabilities. Answer questions such as:

- Will the job structure change?
- Will there be certain shortages within certain industries and in certain geographic areas?
- Study the aging workforce and how it:
  - May add to labor shortages.
  - May also provide a potential new pool of talent, although one that comes with a higher likelihood of disability.
- Study how the projected increase in obesity will increase the number of people with disabilities who are in the workforce.
- Research employer-provided training, benefits, and supports for people with disabilities to determine if they increase retention rate.
- Use productivity study findings to show the impact of hiring people with disabilities and present data to employers through success stories.
- Study the economic costs of employing people with disabilities.

## Theme 2: Organizational Culture

**Benjamin Kempner, M.B.A.**

**IBM Worldwide Human Ability and Accessibility Center**

*Benjamin Kempner is Program Director of Strategy and Marketing in the IBM Human Ability and Accessibility Center. His teams are responsible for assisting IBM divisions in making their products and solutions accessible, working with vendors on accessible software, offering solutions to meet clients' needs, and marketing.*

### **IBM's Disability-related Initiatives**

Ten years ago, IBM established a task force to study diversity. Based on the task force's findings, IBM instituted initiatives related to employing people with disabilities. These include the following:

- New hires with disabilities meet with personnel to make sure the building accommodates their needs.
- Internships are provided for people with disabilities.
- Managers view an IBM-created video entitled "Help Wanted," which addresses concerns managers may have in hiring people with disabilities and explains how to address these concerns.
- The cost-recovery process of accommodations was shifted to the corporate level, so managers do not have to be concerned about using money from their budget.

- Online resources are available for managers who consider hiring employees with disabilities.
- Online resources for employees with disabilities, categorized by disability, are available. IBM also has a variety of network groups for people with disabilities.

### **Stimulating Change within the Private and Public Sectors**

IBM suggests the following ways to stimulate change:

- Prove business value and show return on investment in hiring people with disabilities.
- Conduct best practices surveys on employing people with disabilities.
- Incorporate concepts of accessibility into the curricula for a degree in computer science.

(See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

### **Adrienne Colella, Ph.D., Tulane University**

*Adrienne Colella is an associate professor in the A.B. Freeman School of Business at Tulane University. Her research focuses on treatment issues related to persons with disabilities in the workplace and workplace accommodation.*

Organizational culture is a set of shared assumptions (see Figure 2 for manifestations of this type of culture). According to at least one study, this culture shapes attitudes toward hiring people with disabilities.

Organizational change requires an unfreezing, moving, and refreezing process. Following are the elements of each process.

#### **Unfreezing**

- Provide a rationale for change.
- Create a sense of psychological safety.
- Create minor levels of anxiety about not changing.

**Figure 2: The Manifestations of Culture**



## Moving

- Provide information supporting changes.
- Bring about shifts in behavior.

## Refreezing

- Implement new evaluation systems.
- Implement new hiring and reward systems.
- Create minor levels of anxiety about not changing.

Very little research has been done on organizational culture as it relates to disabilities. Much of the research is on diversity cultures and focuses on gender, race, and ethnicity. Potential research questions include:

- What organizational cultural assumptions facilitate or inhibit the employment prospects for people with disabilities?
- How can organizational cultures be changed to promote the employment of people with disabilities? Before a company can change its culture, there has to be leadership buy-in — the changes have to be part of the organization's mission.
- How are people with disabilities socialized in an organizational culture?

Organizational culture, a “root cause” of poor employment prospects for people with disabilities, is wide open for research on the inclusion of people with disabilities into organizations.

(See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

## Theme 2: Organizational Culture

### Findings

#### *Organizational Culture and Disability*

“Organizational culture” is the values and beliefs of those in the organization, from the highest levels of decision-making on down, reflected in both formal and informal policies and practices. This culture can have a positive or negative impact on employment, advancement prospects, and the day-to-day experience in the workplace of people with disabilities.

More information is needed about the culture of organizations of all types to be able to answer questions important to the disability community. For example: Do organizations believe that hiring people with disabilities increases diversity in their workforce? Do they believe it will improve their public image in areas such as social responsibility? Are these important goals

to organizations? Do they understand how this can enhance their reputation and make them more competitive as businesses and as employers (e.g., hiring people with disabilities may make them more likely to be listed as a socially responsible company and thus acceptable to mutual funds and individuals that consider such matters in their investment decisions)?

## Recommendations

***Bring organizational culture into the research agenda and study how it relates to employing people with disabilities.***

### ***Suggestions for Research***

- Study aspects of organizational culture that would be important to people with disabilities:
  - Job autonomy;
  - Institutionalized job supports, such as alternative work arrangements (e.g., telecommuting);
  - Co-worker and supervisor support, including how teams work together and how management works with the line worker;
  - Learning and training opportunities;
  - Input in decision-making at the leadership level; and
  - Leadership support, including the idea of diversity, not just disability.
- Research how decisions are made in businesses and the values that drive decision-making (e.g., real-time issues, return on investment, and profitability).
- Study organizational policies and practices related to employing people with disabilities. Ask questions such as:
  - What organizational cultural assumptions facilitate or inhibit employment prospects for people with disabilities?
  - How can organizational cultures be changed to promote the employment of people with disabilities?
  - How are people with disabilities socialized in an organizational culture?



## Theme 3: Retention, Hiring, and Skills for the Future

### Vince Taylor, The CNA Corporation

*Vince Taylor is vice president and director of the Center for Human Capital Management for The CNA Corporation. For 28 years he worked with the federal government and held positions such as Assistant Secretary for the U.S. Department of Transportation (DOT), principal advisor to the Secretary of Transportation, and DOT Deputy Chief of Staff.*

More than 15 years have passed since the ADA became law, yet Americans with disabilities still lag behind the general population in employment and economic stability. According to data published in 2006, only 19.3 percent of non-institutionalized people of working age with work limitations are employed. Those employed had a median household income of \$34,300; the median household income of working-age people without disabilities is \$60,000.

Data on employer practices in the employment of people with disabilities are equally disturbing. Based on 501 interviews conducted in 2002 with businesses selected randomly from a database of all businesses throughout the continental United States, researchers found that:

- Only 26 percent of employers have at least one employee with a disability.
- 20 percent of employers said that the greatest barrier is their own discrimination, prejudice, or reluctance.
- There was a net change of minus 16 percent from FY 1996 to FY 2005, while the workforce as a whole increased by 3.10 percent. All involved in employer-side research should be aware of workforce trends.

Workforce trends relevant to researchers in the disability community include:

**Projected future areas for job growth.** The 10 fastest growing occupations involve medical care (including medical assistants, such as home health aides and physician's assistants) and/or computer systems (including network systems and data communications analysts), all of which require at least a bachelor's or associate's degree.

**Labor force.** The nation's labor force is expected to grow at one-third the previous rate: in the past 50 years, it has doubled in size.

**Labor markets and demand for skills.** There will be tighter labor markets and higher demands for certain skills resulting from global interdependence, technological changes, the increase in knowledge-based jobs, the existence of jobs that are easily outsourced overseas, and the dwindling number of students who are enrolled in advanced math and science courses.

To increase the employment of people with disabilities in the federal government, the government should consider mandating that a certain percentage of the hires be people with disabilities. (See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

## **John Kregel, Ed.D., Virginia Commonwealth University**

*John Kregel is a professor of special education at Virginia Commonwealth University and chairman of the Department of Special Education and Disability Policy. He is also Associate Director and Research Director of the university's Rehabilitation Research and Training Center on Workplace Supports and Employment Retention.*

### **Long-term Support**

People with disabilities need to be prepared for the workplace. Instead of preparing to take standardized tests, students should prepare for skills that employers need, and this process should continue throughout their working lives. Long-term research that follows people as their employment needs change is warranted.

### **Federal Policy**

Researchers need to study federal policies and practices that promote or have the potential to promote the employment of people with disabilities. One of the first steps is to explore which federal agencies are responsible for the implementation and enforcement of the ADA, and then to analyze the effectiveness of the ADA and other federal disability programs and acts. This could lead to greater policy coordination among agencies. Other areas of research include understanding what business does well, and then using these practices as models for public programs and investigating ways the federal government can assist business with retention and other employment issues. (See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

## **Rochelle Habeck, Ph.D., Habeck & Associates**

*Rochelle Habeck works as an independent research consultant in federally funded projects with policy research partners that include the Upjohn Institute and WESTAT, among others. Currently, she is involved in projects with the Virginia Commonwealth University Rehabilitation Research and Training Center on Workplace Supports.*

The overall level of employment among people with disabilities has remained relatively unchanged, due in part to the high rate of people with disabilities leaving jobs (job exits). Until the ratio between job placements and job exits changes, the net gain in employment for people with disabilities will continue to be smaller than desired. Causes of low retention include the inability to sustain adequate work performance; changes in work, work conditions, health conditions, or personal circumstances; and employer policies and management practices that discourage continued work (e.g., lack of tolerance for flexible work schedules). The workplace culture influences retention factors. A workplace culture that values employees, allows a flexible and supportive approach to work arrangements, and provides informal rewards and incentives encourages retention. Further research is needed to help understand demand-side practices and to investigate whether there is a role for public policy in enhancing or protecting work retention measures. (See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

## Theme 3: Retention, Hiring, and Future Skills

### Findings

#### *Recruiting, Hiring, and Retaining Employees*

Employers have concerns about finding, hiring, and retaining employees. For example, even if employers want to increase the number of people with disabilities at their workplace, they may not know how to find them. At the hiring stage, employers may be uncertain how to interview people with disabilities effectively and how to address accommodations in the interview.

Although concerns about accommodations can affect hiring decisions, once people are hired, accommodations usually are not a problem. Additionally, accommodations can help all employees, especially universally designed products, communications, and the built environment (where people live, work, shop, and play), which are intended to simplify life for everyone. They also can help those who become disabled while working and want to remain in or return to the workforce.

Most employer-side disability research is on the hiring stage; very little is known about how people with disabilities fare in the workplace over time. For example: Do they have career development and training opportunities? Are they promoted, or do they hit a disability-specific glass ceiling? How long do they stay? How much is their decision to stay tied to opportunities for advancement? Given the high costs of finding and training new employees, employers are especially interested in factors that affect staff retention.

### Recommendations

*Study different parts of the employment process — recruitment, hiring, promotion, and retention.*

#### *Suggestions for Research*

- Study how employers recruit people with disabilities and effective ways to recruit them.
- Conduct research on the interview process and how the need for accommodations may affect hiring.
- Assess the effectiveness of retention strategies such as wellness programs, lifelong learning accounts, family support, flexibility in the workplace, prevention of disability, disability management, and accommodations.

- Study how accommodations can affect the performance of all people in the workplace.
- Research and convey to employers different disability categories and appropriate accommodations, as well as accommodations that might be needed for those who return to work after an illness or injury.
- Assess whether organizational culture fosters the development of careers in people with disabilities, and if so, quantify how.

## Findings

### *Workforce Skills*

As technology advances, technology skills become ever more critical to success in finding jobs. People with disabilities, like all people, need to take courses or even return to school, both to acquire technology skills and other skills needed to compete in today's workplace and to prepare for the future workplace. Preparing to enter and compete in the workforce is a life-long process, starting in elementary school and continuing through adulthood. This is especially important during transition ages and phases, which include teens and young adults entering the workplace, workers who are injured and need different types of employment afterward, and people who become disabled as they age.

## Recommendations

*Identify workforce skills needed in the future and prepare people with disabilities for these skills.*

### *Suggestions for Research*

- To prepare people with disabilities for workforce skills needed in the future, research interventions and transition programs for different life stages and events over their entire lifespan to prepare them for workforce skills needed in the future.
- Study potential partnerships with community colleges, universities, K–12 schools, and local education agencies to educate people with disabilities for the future.

## Theme 4: Business, Health, and Disability Management—Methods Contributing to Industry Productivity and a Healthy Workforce

**Brian McMahon, Ph.D., Virginia Commonwealth University**

*As a professor at Virginia Commonwealth University, Brian McMahon holds appointments in the Department of Physical Medicine and Rehabilitation, Department of Rehabilitation Counseling, and the Rehabilitation Research and Training Center on Workplace Supports.*

### ***Progression of Disability Benefits***

Public and private partnerships were formed with the Rehabilitation and Research Training Center on Workplace Supports, UnumProvident, the National Group on Business and Health, and the NIDRR to study the progression of disability benefits—the predictable and progressive movement of individuals with disabilities through a system of economic disability benefits resulting in their ultimate placement into the Social Security disability system. The research sample included 77,297 claimants (UnumProvident insured for both short-term disability and long-term disability). From the study, researchers identified the following unique practices:

- Community collaboration and targeted outreach;
- Integrated disability management;
- Case management and the opportunity for transitional work following injury or illness;
- Accommodations funding pools;
- Apprenticeships and mentoring;
- Supported employment;
- Health maintenance and safety programs;
- Recruitment and retention programs; and
- Telecommuting.

Pervasive themes included commitment from top management, a well-financed and highly professional human resources department, and serious diversity programs inclusive of disability.

### ***Workplace Discrimination and Disability***

The U.S. Equal Employment Opportunity Commission's ADA research project found that most workplace discrimination involves hiring, quality of work, and—especially—job retention. The impairment groups that experienced the most discrimination were those with HIV/AIDS or mental retardation, and the largest number of allegations of disability-related harassment came from individuals with

mental retardation or traumatic brain injury. (See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

## **Heidi Bimrose, M.A., UnumProvident Corporation**

*Heidi Bimrose serves as a director in the health and productivity development unit of UnumProvident. She works with some of the larger and more complex companies to identify and analyze pertinent data related to health, risk, disease, and disability management, and to define the impact of lost time and disability for corporate clients.*

### ***Employer-based Research Opportunities***

Employers make hiring and retention decisions within a context of corporate culture that has competing and colliding self-interests. The current context for employers includes:

- Focusing on corporate profitability and shareholder value;
- Adapting to the needs of a changing, diverse workforce;
- Maintaining a healthy workforce and workplace; and
- Managing benefit costs and entitlement programs.

All the above issues need to be considered for employer-side research, particularly in two areas:

**Managing employer costs.** The cost of time off and disability programs averages 14.9 percent of the payroll.

**Achieving productive aging.** Prospectively aligning work demands with worker capacities can help achieve continuous productivity. Factors such as employer attitudes and stereotypes, impact of federal and state legislation, and health and functional capacity of the individual affect the productivity of aging workers. But two points of reference need to be considered in research on productive aging: aging with a disability and aging to a disability.

### ***Strategies for Employers***

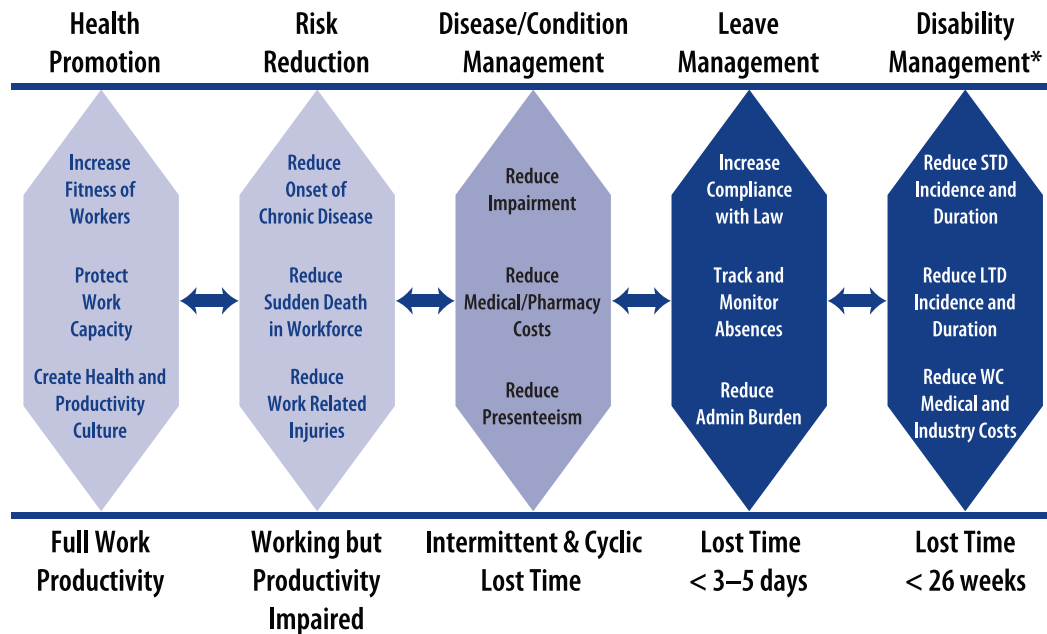
Effective strategies exist that employers can undertake to address disability in the workforce and at the same time control costs. See Figure 3, *Where & When Can an Employer Make a Difference?* Employers cannot implement such strategies alone, but they can form public and private partnerships to help achieve the following goals:

**Create hiring and retention incentives** by creating incentives for employers to hire and retain older workers with physical, sensory, cognitive, or affective impairments that have an impact on long-term work capacity.

**Protect work capacity** by supporting employer tax incentives within health care benefits to promote risk reduction and protect work capacity.



**Figure 3: Where and When Can an Employer Make a Difference?**



\* STD = Short-term disability, LTD = Long-term disability, WC = Worker's Compensation

**Provide employer medical cost relief by** providing a blended private/public health care insurance program for employees within a defined transition period between work and retirement (e.g., ages 55–65).

**Align retirement benefits by** restructuring retirement benefits programs that reflect the need, desire, and capacity for continued productivity without punishing the employer or the employee.

**Arrange for portability of benefits by** building benefit plans that move with the individual, to invite and reinforce both independence and planning within multiple careers, jobs, or changing life situations.

With an aging workforce, the leadership challenge is to influence public policy on aging, health, and productivity; prepare corporate customers to understand issues and solutions; and develop stockholder value through research, education, innovation, and product design. (See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

**Robert Anfield, M.D., J.D., Aetna, Inc.**

*Robert Anfield works as a regional medical director for Aetna, Inc. He has 20 years of experience managing disability. Previously, he was employed by UnumProvident Corporation as a medical director and also served as the corporate medical director for GENEX.*

Illnesses and injuries have an enormous impact on business. To deal with their high costs, companies are using disability management programs to prevent health

conditions and disabilities and manage them when they occur. Trends in disability management include prevention of disability through programs on safety, wellness, and employee assistance; integrated health and disability; predictive modeling; analysis of the impact of obesity; and iatrogenic disability—a disability inadvertently caused by medical treatment or diagnostic procedures. The scope of disease management is expanding from a narrow set of chronic illnesses to disease clusters that encompass a broader array of chronic illnesses.

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## The Impact of Obesity

The total cost of obesity to U.S. employers is estimated to be \$13 billion per year:

- \$8 billion in health insurance;
- \$2.4 billion in paid sick leave;
- \$1.8 billion in life insurance; and
- \$1 billion in disability insurance.

Obesity is annually associated with:

- 39 million lost work days;
- 239 million restricted-activity days; and
- 63 million physician visits.

Source: National Business Group on Health (Institute on the Costs and Health Effects of Obesity)

- Epidemic of intercurrent obesity (occurring during or modifying the course of an illness);
- Quality of health care; and
- Development of evidence-based return-to-work guidelines for specific diseases.

(See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

The prevalence of obesity is a major concern of U.S. employers because of its cost (see the sidebar, The Impact of Obesity). Since 1991, the prevalence in adults has increased 74 percent, and greater than 30 percent of the adult population is obese. In children, it is just as alarming: Since 1980, rates have doubled among children and tripled among adolescents and, like adults, rates in these younger age groups continue to rise.

Areas for disability management research include:

- Validation and refinement of predictive modeling assumptions and return-to-health and return-to-work strategies;

## Theme 4: Business, Health, and Disability Management Methods

### Findings

With escalating health care costs, businesses large and small are putting resources into wellness, prevention, and disability management, but the main shift is toward prevention. Business is also concerned about retention. Anything employers can do to support worker retention saves money spent on staff replacement and boosts profits.

But employers cannot do this alone. They are creating public and private partnerships to help them offer hiring and retention incentives, reduce employee medical costs, and implement disability management programs. The ultimate goal is to reduce medical expenses, absenteeism, and staff turnover.

### Recommendations

***Study trends in disability and health and ways to prevent and manage disability in the workplace.***

#### ***Suggestions for Research***

- Study how preparing for an aging workforce and age-associated disabilities can give companies a competitive advantage.
- Research issues in disability management such as:
  - Validation and refinement of predictive modeling assumptions and return-to-health and return-to-work strategies; and
  - The obesity epidemic and how it will affect disability management.
- Study public and private partnerships for providing disability benefits.
- Consider establishing public and private partnerships with entities such as business coalitions to study business, health, and disability management.

## Theme 5: Demographics, Data, and Statistics for Employers

### Jim Curcio, M.B.A., National Business Group on Health

*Jim Curcio serves as the senior project consultant for health, productivity, and disability within the National Business Group on Health. He helps direct the Council on Employee Health and Productivity's comprehensive quality metrics project, which has created a standardized health, productivity, and absence management metrics and reporting system for all employers and their suppliers.*

Employers have a need for standardized data for their health and productivity-related programs to effectively measure and evaluate those programs. With the National Business Group on Health's Employer Measures of Productivity, Absence, and Quality (EMPAQ<sup>SM</sup>), the definitions and metrics related to workers' compensation, short-term disability, long-term disability, family and medical leave, group health, and incidental absence programs have been standardized. Employers that participate in "EMPAQ<sup>SM</sup> Inside" of the Integrated Benefits Institute's (IBI) Benchmarking Programs can be assured that their data and the data of other employers have been collected and will provide an "apples to apples" comparison in measurements of the cost, effectiveness, and quality of their health and productivity programs.

EMPAQ<sup>SM</sup> has been accepted as the industry-wide standard by employers and suppliers (insurers, third-party administrators, etc.). Through the training and certification process, both employers and suppliers are certified to submit data. With so many of the major suppliers certified, employers can rely on their EMPAQ<sup>SM</sup>-certified supplier partners to provide many of the data needed to participate. Since 2004, more than 400 employer and supplier representatives have been trained and certified in EMPAQ<sup>SM</sup>. Of those, 247 employers representing 15 industry sectors have participated in IBI's Benchmarking with "EMPAQ<sup>SM</sup> Inside." Collectively, they submitted 556 data sets for benchmarking. More information is available at [www.empaq.org](http://www.empaq.org). (See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

### David Wittenburg, Ph.D., Mathematica Policy Research

*David Wittenburg is a senior researcher at Mathematica Policy Research. As a labor economist, he has written several articles on programs that affect low-income populations, especially adults and children with disabilities. He also has written peer-reviewed articles, book chapters, government reports, and policy briefs that examine issues related to disability programs of the U.S. Social Security Administration.*

#### **Demographic and Employment Statistics**

Several national surveys provide health and employment information. They focus on health (National Health Interview Survey), employment and programs (Survey of Income and Program Participation), medical expenditures (Medical Expenditure Panel Survey), and administrative data (Social Security data). But definitions of disability can vary among the surveys and produce differences in demographic com-

position, employment rates, needs, and trends. The definitions of employment also vary among the surveys, producing varying employment rates for people with disabilities. For example, the data from the Survey of Income and Program Participation show the following employment rates for people with disabilities by definition: (1) any annual employment yields a 41 percent employment rate, (2) full-time annual employment yields a 15 percent rate, and (3) any monthly employment yields a 27 percent rate. The implications of these data are that people with disabilities are more likely to work part-time or part of the year. To interpret employment rates, researchers need to understand the reporting body's employment definitions. Cornell's Rehabilitation Research and Training Center on Disability Demographics and Statistics (StatsRRTC) provides user guides for several data sources (see the sidebar, Data Sources).

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## Data Sources

Cornell's StatsRRTC provides user guides for several data sources:

- American Community Survey;
- 2000 Decennial Census;
- Current Population Survey;
- National Health Interview Survey; and
- Panel Survey of Income Dynamics.

Available for download at <http://www.disabilitystatistics.org>.

## Job Entries and Exits

Exits and entries are influenced by labor supply and demand factors, including:

- Business cycle (exits and entries are sensitive to the business cycle);
- Severity of disability;
- Demographic characteristics; and
- Competing incentives (e.g., disability programs).

Research has shown that labor market changes sweep people with disabilities out of the labor force. Job re-entries are more affected by these changes than job exits. For example, people with disabilities are not necessarily the first fired, but they are the last rehired. The policy implication for this finding is that job retention is important, but the key to increasing employment is focusing on job entry policies.

The difficulty in finding jobs and the need for accommodations limit employment prospects among adults with disabilities. One study found that one-third of non-workers with a disability needed accommodations such as work site features including transportation, specifically designed work stations, and flexible work schedules.

The provision of accommodations also can affect whether people with disabilities leave jobs. Researchers have determined that providing accommodations could increase employment and reduce entry into Social Security Administration disability programs.

In summary, existing surveys provide general information on demographic and employment rates, although the rates are sensitive to definition, and there is limited

information on disability status in surveys focused on employment. There is general information on job entries and exits and the need for accommodations. But there are limited local data (most survey data are at the state level), and there is limited information by type and degree of impairment group.

Recommendations include the following:

- Link administrative data with survey data. For example, use Social Security Administration data, narrow the target population, and use information at the local level on specific impairment groups.
- Enhance surveys with detailed employment information.
- Conduct employer surveys and use employer administration tracking to obtain data.

(See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)

## **Burt Barnow, Ph.D., Johns Hopkins University**

*Burt Barnow is Associate Director for Research and principal research scientist at the Institute for Policy Studies at the Johns Hopkins University. He has more than 30 years of experience as an economist and manager of research projects in the fields of program evaluation, labor economics, welfare programs, employment and training programs, and disability policy.*

### **Survey Data**

The U.S. Bureau of Labor Statistics gathers data from the Current Population Survey, Occupational Employment Statistics, Occupational Projections, and the National Compensation Survey. Employers can use these data to make workforce decisions. Unfortunately, the data are considerably weaker for analyzing the disabled population than for other protected groups such as racial and ethnic groups, older workers, and women.

### **Measures of Impairment and Disabilities**

For employers who wish to develop appropriate targets for people with disabilities for their workforce, databases should use validated measures of impairments and disabilities. But how can those measures be improved? Because it is the key source of labor market information, the Current Population Survey should be targeted for improved measures of impairments and disabilities. Another potential source of impairment data is the 2010 Decennial Census: Disability data consistent with the definition in the ADA and impairment data should be incorporated into the census questions and the equal employment opportunity data tool. (See <http://www.icdr.us/employment/materials.html> for PowerPoint slides.)



## Theme 5: Demographics, Data, and Statistics for Employers

### Findings

#### *Science and Relevance*

Businesses need reliable data to create policy and set practice. In the field of disability research, additional well-designed studies are needed, particularly studies that are relevant to the business community. Efforts to improve employment prospects for people with disabilities must examine the issues from both sides — the prospective employer’s as well as the prospective employee’s. To date, the emphasis in disability research has been on the latter.

Although researchers often favor long-term studies of 5 to 10 years, this time-frame is not workable for many, if not most, companies. Business decision cycles are more compressed. One participant noted that his company would have gone through three major shifts in strategies around products and productivity, among other things, during the time span of the typical longitudinal study. Employers need to be involved during all stages of research from design of the questions to translation of the findings.

### Recommendations

***Balance science and relevance in the research design — both what is measured and how it is measured.***

#### *Suggestions for Research*

- Gather different types of qualitative data (e.g., through anecdotal research and case studies) and conduct short- and long-term quantitative studies.
- Study written policies and procedures and observe employer practices.
- Develop case studies with a standard design that enables some generalization across market sectors and across employer organizations of different sizes.
- Create a community health model to study different employment-related interventions.

## Findings

### *Research Questions*

Research starts with the formulation of questions to be answered. How those questions are framed, and their relevance to the information that is sought, drive the research. To improve the employment picture for people with disabilities, all relevant players must participate. Progress in this area has been made in other countries, notably Canada and Germany.

## Recommendations

*Determine what research questions need to be answered.*

### *Suggestions for Research*

- Bring together employers, researchers, and those on the supply side — people with disabilities and policy experts — to create research questions.
- Tap the international community as a source of ideas and information on disability research.

## Findings

### *Employers and Disability Research*

When researchers see employers as customers of their products (study findings), they can involve them in the research process more effectively. When employers see themselves in that role, they are more likely to participate in the research process willingly and encourage others within their company to support the researchers. But to do so, employers need to know both the costs and benefits to them. For example, they may want to know how much time the research will take, whether it will disrupt normal operations or expose the company to risks (indirect costs) or require actual costs, and what the employers will get out of it (benefits). The more researchers can put themselves in the employers' place and understand employers' concerns and motivations, the better able they will be to conduct research. Additionally, intermediary groups knowledgeable about the inner workings of business can help foster collaboration.

## Recommendations

### *Engage employers in the research.*

#### *Suggestions for Research*

- Involve people from human resources, public relations, marketing, technical, legal, design (accessibility and architecture of office design), management, and customer service in the research process, as well as CEOs.
- Provide incentives for employers to engage in the research.
- Identify employers' most pressing needs and then show them how the research will address those needs.
- Use intermediaries, such as The Conference Board and Society for Human Resource Management, to work with employers.
- Address confidentiality and risk in data-gathering, which are serious employer concerns.

## Findings

### *Data Sources and the Definition of "Disability"*

It can be difficult to collect data on employer needs and employment of people with disabilities. Although the National Health Interview Survey and the Survey of Income and Program Participation are among several national surveys that provide health and employment statistics, data are sparse or absent on many subjects of interest to the disability community. Researchers may find it useful to tap into existing data sources, but when they do, they may find that industry, academia, and the federal government use different definitions of "disability" and "employment." Inconsistent definitions of these key terms can produce differences in data on demographic composition, employment rate, needs, and trends.

## Recommendations

### *Improve existing data sources, identify new ones, and develop a standard definition of "disability."*

#### *Suggestions for Research*

- Strengthen existing data sources by working with people and organizations that are involved with population surveys, but recognize

the challenges involved in attempting to make any changes in such surveys.

- Consider data sources in the private sector, such as the insurance industry, which maintains data on filing of disability claims, as well as entities that represent the insurance industry, such as the American Health Insurance Plans. (However, much of this information is proprietary.)
- Develop a common language or standard definition of “disability” by working with representatives of the different entities and sectors that use the term in research.

## Findings

### *Differences in People with Disabilities and Types of Employers*

“People with disabilities” are unique, as are all human beings. They cannot be studied as a monolithic group. Within this category are significant differences, some of which affect what types of work and accommodations are suitable. For example, people with disabilities have different levels of education and work experience, different types of disabilities (i.e., cognitive disabilities, mobility impairments, mental disabilities) and sources of disabilities (i.e., acquired or life-long), and different levels of support needed.

Similarly, there are different types of employers. An employer can be public or private; for-profit or non-profit; small, medium, or large; service- or product-oriented; and domestic or international.

Research should take into account both the similarities and differences of these types of employers.

## Recommendations

*Create a research agenda that is comprehensive enough to encompass an array of differences.*

### *Suggestions for Research*

- Study people with disabilities who have different levels of education and work experience; different types of disabilities such as cognitive or sensory, as well as acquired and life-long disabilities; and differences in the types of support they need.
- Study people who become disabled while working. For example:

- What happens to workers who go on short-term disability or long-term disability (e.g., do they return to the workforce)?
  - What types of workers are most likely to go on short-term or long-term disability?
  - How much morbidity and mortality in the workplace is the result of medical errors or medical mismanagement, and does it relate to people leaving the workforce, either temporarily or permanently?
- Study public and private employers, businesses of different sizes, and current and future skills needed by employers.
  - Study support systems, such as service providers (e.g., vocational rehabilitation, employment networks under the U.S. Social Security Administration’s Ticket to Work Program, and workforce development systems), that are central to the conversation about how to change the employment status of people with disabilities.
  - Seek out alternative models to support small businesses in providing accommodations.
  - Research different models of public/private relationships (e.g., insurance companies that support small businesses in hiring, accommodating, and promoting career development in people with disabilities).

## Findings

### *Translate Research for Employers*

Research needs to be translated into language that employers can comprehend. Researchers, with the help of marketers and public relations experts, need to find new and creative methods of communicating research results that are useful to businesses.

## Recommendations

### *Translate research into language and formats employers can understand.*

#### *Suggestions for Research Translation*

- Tailor the data for different audiences within the workforce, such as those involved in recruitment, supervision, disability management, and health benefits.

- Develop promising business practices and case studies to give employers “real life” examples they can relate to of how the data can be used.
- Apply the data to create easy-to-use workplace tools that can help organizations bolster meaningful employment of people with disabilities.
- Market the data with traditional marketing strategies that may be novel to the research community. For example:
  - Edit copy for media kits and presentations to ensure audience-friendly language.
  - Have a line-up ready of staff members with disabilities who can represent the company (e.g., “a day in the life” story of someone with a disability).
  - Make media training available to researchers.
- Disseminate data through more diverse and mainstream channels, such as:
  - Business and trade organizations (e.g., U.S. Chamber of Commerce) and conferences; and
  - Publications that target business leaders, the popular press, and business and news sections of newspapers and magazines (e.g., submit stories about companies that employ people with disabilities).
- Consider creating a clearinghouse for disability research.

## Theme 6: Role and Effect of Government

### Stephen M. Wing, CVS/pharmacy

*Stephen Wing is Director of Government Programs for CVS/pharmacy. He has been in the drug store business for more than 30 years and has devoted the last 16 to working with government agencies, non-traditional employment organizations, and faith-based institutions in recruiting targeted groups of people for employment.*

CVS/pharmacy, one of the nation’s largest pharmacy and health care product chains, is committed to training and hiring people with disabilities, because it makes good business sense. Its workplace programs include specialized assistance to individuals with disabilities entering the workforce close to home. Recently, the Secretary of Labor granted the *New Freedom Initiative* Award to CVS/pharmacy for its exemplary service toward employing people with disabilities.



In 2005, CVS/pharmacy worked with the EARN to train managers in disability awareness and sensitivity to people with disabilities. Funded by ODEP, EARN is a nationwide cost-free recruiting and consultation service that connects employers with a national network of employment service providers with access to job seekers. Through ODEP, CVS/pharmacy participated in a pilot program to hire people with developmental disabilities and to train managers in supervising them. This successful program was eventually expanded.

CVS has an innovative program in which people with disabilities participate in a nine-week training program to learn photo skills such as changing film and batteries and adjusting the speed of the film. After this training, they intern in photography departments of local CVS stores and learn the one-hour developing process. At the end of the program, all participants are hired as CVS employees. CVS used this training program as a model that was duplicated in other markets and donated and distributed 3,000 cameras in a partnership with Easter Seals.

CVS also partners with national organizations such as Goodwill Industries and state agencies, as well as school programs dedicated to serving persons with disabilities. In one tri-state area partnership, CVS hired 55 people with significant disabilities.

### ***Recommendations***

Based on CVS/pharmacy's initiatives to train and employ people with disabilities, Wing made the following observations:

- Research needs to fit into a typical business decision cycle (i.e., 6–12 months), because strategies involving products and productivity can change frequently in the business world.
- Partnerships among businesses, the government, and non-profit organizations are important in increasing the employment of people with disabilities.
- Employing people with disabilities increases a business's standing in the community and can lead to increased business.
- People with developmental disabilities can and should perform meaningful and satisfying work.

### **Peter Blanck, Ph.D., J.D., Burton Blatt Institute, Syracuse University**

Through a five-year grant from the NIDRR, the Burton Blatt Institute is conducting demand-side research on the employment of people with disabilities that is scientifically rigorous, evidence-based, and relevant to employers. This project involves a nationwide collaboration of economists, statisticians, and leading experts in law, public and disability policy, corporate culture, applied life studies, technology, and education. Project partners will translate findings into valid and practical tools for large and small businesses in different market sectors to improve employment outcomes.

## Recommendations

- Form public/private partnerships to investigate demand-side employment issues, such as:
  - **Corporate culture.** This culture can create attitudinal, behavioral, and physical barriers for workers and job applicants with disabilities. Answer questions such as: How does corporate culture facilitate or hinder the employment and promotional opportunities of people with disabilities? How does corporate culture create or reinforce obstacles to employees with disabilities and how can these obstacles be removed or overcome?
  - **Workplace accommodations.** Employers have misconceptions about the cost of providing accommodations; the costs are usually less than employers expect.
  - **Workforce trends.** How do trends such as downsizing and outsourcing affect the employment of people with disabilities?
- Conduct research that is scientifically rigorous and relevant to business and people with disabilities.
- Accumulate, organize, and summarize the research and then translate it for application in the workplace. These steps are necessary for researchers to understand business trends. Because no single study is definitive, meta-analyses are needed.

Additional information on this topic is available at <http://bbi.syr.edu>.

## Janna Starr, The Arc and United Cerebral Palsy Disability Policy Collaboration

*Janna Starr is director of Disability Rights, Technology and Family Policy for The Arc and United Cerebral Palsy Disability Policy Collaboration in Washington, D.C. Previously, she served as CEO of the Oregon Council on Developmental Disabilities, and Executive Director of The Arc of Oregon and The Arc of Austin, Texas.*

Researchers need to acknowledge limited federal resources for disability research, many competing priorities such as research versus the need for vital services, and the large research agenda. Many stakeholders perceive disability research as an activity with more relevance to academia than to real life and real people. Those involved in research as a public investment are responsible for producing outcomes that benefit society. Training, technical assistance, and concrete steps must occur to make research real. And investment must be made in research dissemination.

To increase the commitment to disability and employment research, researchers should involve people with disabilities, their family members, and advocates in all aspects of related research. This needs to be done to increase the relevance of the research, translate research into effective practice, and improve ways to share information with all who need it. Researchers also need to show successful outcomes.

## **Core Values of Employment and How to Achieve Them**

Published in 2005, the book *National Goals and Research for People with Intellectual Disabilities* is a follow-up to the conference *Keeping the Promises: National Goals, State of Knowledge, and Research Agenda for Persons with Intellectual and Developmental Disabilities*. This book highlights employment-related issues and outlines the core values of employment: inclusion; informed choice; career path; parity in wages, hours, and benefits; and parity in work style options and choice. But how can these values be achieved? Some successful strategies include supported employment, supported entrepreneurship, and customized job development. Developing co-worker supports, job restructuring, and encouraging workplace accommodations are other successful strategies. However, more needs to be learned, especially to answer employers' questions about employing people with disabilities (see the sidebar, Questions Employers May Have About Employing People with Disabilities).

### **The Federal Government's Role**

Governments set and implement public policies to increase the employment of people with disabilities. Yet the effectiveness of the public strategies needs to be studied. Strategies include ensuring compliance with civil rights laws; promoting disability-friendly, people-friendly, and truly inclusive environments; and dispelling myths and stereotypes related to employer practices and employing people with disabilities. It would be helpful to know which works better — carrots or sticks.

In addition to setting policy, the federal government can also be a model for others in employing people with disabilities, an area in which it has had some success. Unfortunately, some of these jobs have been lost to private-sector outsourcing.

What has been learned from the government experience that can be applied to the private sector? The Social Security Administration, the top federal employer of people with disabilities, may provide some guidance. Following are some reasons for this agency's success:

- Support from the highest levels of the agency;
- Strong linkage to the agency's strategic plan;

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### **Questions Employers May Have About Employing People with Disabilities**

- How do we ensure that employing people with disabilities is "value-added"?
- Is employing people with disabilities more than a good "human investment"? Is it a real boost to employers' bottom line?
- How can we expand the role of business coalitions and public/private partnerships? Will strategies such as training and technical assistance, information-sharing, employee-sharing, supervisor-sharing, and incentives work?
- What is the effect of public/private employment partnerships on long-term job tenure and earnings?
- What is the best way to expand the role of business in inclusive employment efforts, especially in onsite training activities?
- How do we promote business ownership as an employment option?

- Understanding among managers and supervisors of the benefits of employing people with disabilities;
- Aggressive, agency-wide recruitment strategy and marketing campaign;
- Clear understanding of current hiring flexibilities within the federal government; and
- Use of an accountability system that tracks and measures the results of initiatives.

### ***How to Achieve Parity in Wages***

People with disabilities should be able to achieve a level of economic security, but this can be accomplished only by achieving parity in wages. More research needs to be done on how to achieve parity in wages. Research questions on this issue include: What are the costs involved for everyone to make a minimum wage? Who would pay those costs? What are the demographics of people earning a below-minimum wage? Where are they employed? What can the business community tell us about improving productivity?

## **Theme 6: Role and Effect of Government**

### **Findings**

#### ***Incentives for Employers***

Federal and state governments can offer incentives to encourage businesses to employ people with disabilities. Among the array of possible incentives, such as tax incentives and employment training grants, not enough is known about which ones are effective in which settings and what modifications might enhance their efficacy.

### **Recommendations**

***Study government programs and legislation (federal, state, and local levels) that encourage or regulate the employment of people with disabilities.***

#### ***Suggestions for Research***

- Study government incentives for employers:
  - What incentives would be suitable for different levels of government?
  - What incentives would be appropriate for different sizes and types of employers?

- What incentives have been tried at different times and in different places, and what have the results been (case studies and lessons learned)?
- Provide forums for employers, researchers, and government policymakers to discuss issues they have in common that affect employment research.

## Findings

### ***Governments as Role Models for Employers and Sponsors of Research***

Governments can serve as role models for employers in several ways. For example, they can demonstrate leadership in hiring people with disabilities, and they can build “best practice” requirements for hiring people with disabilities into their own contracts for goods and services.

At the federal level, the government has the infrastructure and resources to perform a census of people with disabilities. Through its research institutions, the federal government can also conduct research on people with disabilities, modeled on the well-known Framingham Heart Study (longitudinal research begun in 1948 and continuing today).

## Recommendations

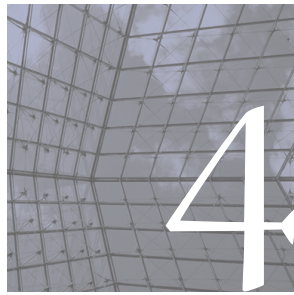
***Encourage governments to serve as models for employing people with disabilities and study these models. Conduct, collect, and disseminate research on employing people with disabilities.***

### ***Suggestions for Research***

- Study these practices through demonstration projects.
- Design and carry out a nationwide census of people with disabilities to:
  - Measure and analyze employment trends;
  - Increase the quantity and improve the quality of data on people with different types of disabilities; and
  - Assess the implications of this information for employment of people with disabilities.
- Conduct longitudinal studies of Americans with disabilities to enhance understanding of this population.

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## Perspectives on the Summit

In this final general session, two panelists from academia provided their perspectives on the Summit's findings, the strategies identified, and the implications for future action by researchers, employers, advocates, and the ICDR and ISE.

### **Adrienne Colella, Ph.D., Associate Professor, Tulane University**

Researchers would like to know why the employment outlook of people with disabilities is so bleak and how they can conduct research to increase those employment prospects. Employers were invited to the Summit to explain what they need from researchers and how researchers can get this information back to them.

The message from employers came across loud and clear: They want a business case for hiring people with disabilities. This is a new focus of research.

**Show the value of people with disabilities in the workplace.** Colella was disturbed by the notion that it is necessary to increase the perceived value of people with disabilities to employers. Instead, the disability community needs to dispel myths that employers believe about people with disabilities: that they are a safety risk, have more absenteeism, and are more costly to employ.

**Research how accommodations can improve the performance of all people in the workplace.** Colella cautioned against the idea that people with disabilities have to perform better than others to pay off their accommodations. A better approach is to examine how accommodations affect everyone's performance and signal flexibility to employee needs, and whether a policy of accommodations for all leads to increased innovation. But it is also important not to overreach with promises (e.g., not to claim that hiring people with disabilities will result in greater innovation). She urged a straightforward presentation of the case for hiring people with disabilities.

**Increase the public image of companies with good practices.** Several things can be done to promote the notion that hiring people with disabilities will increase a company's public image. For example, researchers can look at the value of companies that mutual funds list as socially responsible and link the employment of people with disabilities to socially responsible mutual funds. (Data show that public perception of a company's social responsibility correlates with its stock prices.) Also, the literature contains case studies showing that people with disabilities may bring

about innovation in workplace policies and practices that help everyone. These case studies can be assembled.

**Show how changing demographics will affect the workplace.** Demographics suggest that disability will remain an issue in the U.S. workforce because of the aging population. Companies that prepare for an aging workforce will have a competitive advantage.

**Use intermediaries.** The Conference Board and the Society for Human Resource Management are great intermediary organizations between businesses and research. Researchers should consider using these intermediaries.

**Increase communication among researchers, employers, and policy-makers.** This Summit was an opportunity for these groups to talk to one another. Discussions covered topics such as federal policy and regulations, how the ADA is being handled in the courts, vocational rehabilitation systems, education systems in general, organizational cultures and policies, and individual behavior. All participating groups recognize that their fields have different languages, but they were able to communicate across those divides.

**Develop tools (actionable items) for employers.** Many best practices studies were mentioned, among them IBM's work and Peter Blanck's large-scale job analysis study.

**Identify barriers facing people with disabilities.** The Summit largely ignored what does not work, yet it is important to look at both failures and successes — what works and what doesn't. There was little talk about discrimination, but discrimination exists and is not going away. In his keynote address, Charles Riley said that it was difficult to identify 50 "good companies." Most of the businesses on his list are large corporations; what is going on in the other companies? Researchers need to identify barriers facing people with disabilities. Doing so can help organizations remove those barriers.

**Break down the employment process.** Rochelle Habeck made a clear distinction between hiring and retaining employees. In practice, however, there is a tendency to lump all employment issues — hiring, recruitment, and retention — together. This practice needs to change, with the employment process separated into its different steps and studied. Researchers need to ask whether employer incentives work and what such incentives are going to affect. For example, incentives may affect hiring but not development. Considerable research has been done about hiring, but there has been far less study about what happens after people with disabilities enter organizations.

**Gather data for employers.** Employers want data on employment trends and how employing people with disabilities will affect their bottom line.

**Consider all disabilities.** Some disabilities, such as mental disorders, get less attention. Parity has long been an issue in the mental health field. It is appropriate for the disability community to be inclusive.

**Consider global practices.** Beyond the observation that Canada and Germany are about two decades ahead of the United States in disability management practices in the workplace, the Summit offered very little about global considerations. Many U.S. corporations conduct global business; however, some of their disability practices are not as they appear to be. For instance, a regional manager of a hotel in India, which is part of a U.S. hotel chain, reported that although they have quotas for hiring people with disabilities, those employees are kept in a back room because the sight of them upsets customers.

**Be clear in defining disability.** The term “disability” can mean many things. It would be helpful to develop a common language and a standard definition.

Finally, researchers need to translate research into action. Colella found the two speakers who presented the marketing side of research to be invaluable, for example, in raising questions about whether researchers are the best people to disseminate their work — whether they know whom to call at the newspaper and have the right connections to get an article published. People like Charles Riley can help researchers. Also helpful would be the publication of disability research across disciplines to foster integration, a clearinghouse for disability research, and media training for researchers.

**Michael Morris, J.D., Managing Director,  
Burton Blatt Institute, Syracuse University**

*Michael Morris is Managing Director of the Burton Blatt Institute of Syracuse University, Washington, D.C. office, and Managing Director of the Law, Health Policy, and Disability Center at the University of Iowa College of Law. He has more than 20 years of experience in systems change activities to advance employment and entrepreneurial opportunities for individuals with disabilities with the collaboration of government, the business community, and private foundations.*

“Navigating the fog of legal obscurity, government stupidity, and corporate oblivion is tough without the beacon of data.” Morris said this quote from Charles Riley’s book may sum up everything — the highs and the lows. He then addressed what he termed the “conundrum” of the relationships between the employers and the researchers.

***Conundrum: The Balance between Science and Relevance***

Some large-scale demonstration studies will go on for 5 to 10 years, but this timeframe is out of sync with business planning cycles. According to Stephen Wing, Director of Government Programs for CVS/pharmacy, his company will have gone through three major shifts in strategies around products, productivity, and the definition of performance during that time. These rigorous, experimentally designed studies have value, but researchers also need to understand the importance of multiple methods of qualitative and quantitative design. It is about having a partnership — a mutual conversation that finds some new middle ground.

Research starts with the questions to be answered. The relevance of those research questions will drive the research and methods. Who poses those questions? It is important for researchers to realize that the conversation begins with the formulation of questions, which is triangular in nature: It involves employers, researchers, and those on the supply side — people with disabilities and policy experts. In practice, they often are not part of the research design. They only take the information provided by researchers, and then they often discard it and proceed with anecdotal information. The research community has not brought together the right mix of those different interests. If there is anything to be learned from this two-day meeting, it is that researchers have to work together with a new set of actors on formulating those questions; employers are not merely going to be the subjects of research.

The research community also must overcome its ambivalence about self-reported data, which it often ignores. One result is confounding, contradictory findings from different research studies.

### ***What Gets Measured, and How Is It Measured?***

Morris addressed these questions as a three-part equation: the nexus between validation and values, between methods and message, and between science and strategy.

**Nexus between validation and values.** Validation is at the core of rigorous science. The corporate world — both large and small businesses and across market sectors — has different values that drive decision-making: values in real time, values in return on investment, and values driven by profit. Success requires finding the nexus between validation and those values.

**Nexus between methods and message.** Scientists focus on methods, but the marketing experts at the Summit pointed out that corporations ultimately focus on message. The question here is how to translate research findings profitably in terms of the product sold or the research delivered.

**Nexus between science and strategy.** Science is about formulating appropriate questions, finding appropriate research methodology, determining sample size, and conducting accurate, independent, and objective analyses. And yet a corporation's strategy works in real time. Individuals with very different backgrounds and disciplines form strategies. Finding the nexus between science and strategy will greatly propel this conversation forward.

### ***Oversimplification and Generalization***

No two people with disabilities are alike, regardless of the label, whether it is a label of intellectual disability or sensory disability. Business and industry are equally heterogeneous. In thinking about the research agenda that brings into focus employer demand, researchers need to look across market sectors (public and private employers); small vs. large business; current vs. future skill needs in terms of trends, analyses, and projections within market sectors; differences between acquired and life-long disability; differences between individuals because of education levels and

work experience; and differences between levels of support needs. This relationship is not just the connection between supply and demand; the service delivery system is a huge other overlay. Service providers—vocational rehabilitation, employment networks under the Ticket to Work program, and workforce development systems—are major players in the conversation about how to change the employment status of people with disabilities in this country. Oversimplification and generalization do not work. The research agenda has to be robust and comprehensive enough to incorporate this array of differences.

### ***Congruence of Interests***

In listening to different speakers, Morris was encouraged by the realization that many interests of employers are congruent with the interests of people with disabilities and the research community that is represented at the Summit.

### ***Labor Supply Shortages and Worker Retention***

Many speakers addressed demographics and the aging of America. Peter Blanck spoke of the need to ask where people with disabilities fit in and how that value can be quantified and qualified. He and others shared the costs to individual companies of worker retention. Small and large businesses are doing everything they can to support wellness, prevention of disability, and disability management. Anything they can do to support worker retention saves money and positively affects the bottom line.

### ***Incentives That Influence Behavior***

Whether it is tax benefits, employment training grants, or different supports from local and state governments, a variety of incentives can drive corporate behavior. Little is known about which incentives work and do not work, which need to be tweaked, which need to be thrown away, and which need to be transformed. This is a fruitful area for research.

### ***Diversity and Corporate Culture***

Corporations spend thousands of dollars studying their corporate culture: how teams work together, how management works with the line worker, and how to incorporate diversity as a competitive advantage in the workplace and in advertising and marketing. Corporate culture presents a new and exciting area for the research agenda.

### ***Scalability of Success***

There is considerable interest in what works at different levels and with different issues—with hiring, accommodation, worker retention, and career advancement. Researchers can create case studies with a standard design that enables some generalization across market sectors and employers of different sizes. Issues that interest employers include technology that improves productivity and health care, who



pays for the health care, and how it affects productivity and “presenteeism” (extent to which an employee is not productive at the worksite) vs. absenteeism. All these issues represent a congruence of interests.

### ***Benefits Other Than Health Care***

Employers are worried about worker retention. They are looking at an array of benefits to keep the employees they invest in hiring and training: life-long learning accounts, family support, and flexibility in the workplace. Stephen Wing explained CVS/pharmacy’s program that gives below-market interest loans to first-time homeowners if they have worked for the company for at least two years. These issues engage and involve people with disabilities in the workplace.

### ***What’s Next?***

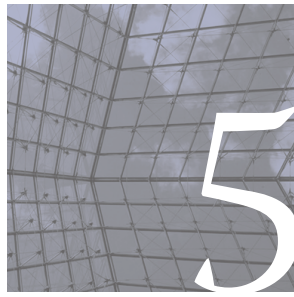
**Public employers.** Public employers — federal, state, and local governments, and private for-profit corporations that are involved in government contracts — can use public policy to build a research agenda. This is a ripe area for demonstration, building capacity, and then documenting results.

**Early intervention.** Corporations are partnering with community colleges, universities, K–12 schools, and local education agencies, but students with disabilities are not part of this effort. These partnerships offer an opportunity for short- and long-term interventions and for building a research agenda.

**Use of technology in the marketplace.** Technology offers a rich arena for research and application. For example, research and training centers might be combined with engineering research centers. How does today’s technology compare with the anticipated technology needs of the future? How does the answer change the playing field where all workers will be more productive? What are the opportunities to build this into a research agenda?

In summary, the overarching question becomes: How do we look at the big picture of all of this research — multiple methods, triangulation, and meta-analyses?





## Future Directions

Multiple strategies emerged from Summit presentations and discussions to guide ISE in setting a research agenda on employer-side research. But these strategies are not independent of one another; instead, they are intertwined and must occur in concert. For example, to study the different parts of the employment process (strategy #3), the researcher needs to be knowledgeable about corporate culture (strategy #1), and needs to balance science and relevance to the employer when designing the research (strategy #6). Similarly, researchers, employers, advocates, and policy-makers must work together to implement these strategies.

### Strategy 1: Link the employment of people with disabilities to the diversity movement

#### Culture vs. Practice

The climate of an organization's culture (values and beliefs) affects hiring practices, job retention, and career trajectories for employees both with and without disabilities. For instance, an organization that views differing employee backgrounds and perspectives as adding value to the organization, such as enhanced creativity and group decision-making, may be more likely to integrate disability into its diversity strategy. But not all organizations with formal diversity policies actually carry them out and those that do may not recognize that hiring people with disabilities increases diversity in their workforce.

An organization's culture may not be immediately apparent: Stated policies on employing people with disabilities may conflict with actual practices. The sidebar, Peering into an Organization's

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#### Peering into an Organization's Culture

- Does an organization that is committed to hiring people with disabilities have programs that are geared to preventing health conditions and disabilities and managing them successfully for productive work retention?
- Do these programs exist solely to decrease costs or are they for the purpose of pursuing diversity goals, such as increasing retention?
- Is the office environment accessible to people with disabilities and open to providing workplace accommodations?
- How do the norms and values of an organization support or complicate the integration of people with disabilities into the workforce?

Culture, poses questions researchers can ask to obtain data on an organization's culture.

A body of research supports the idea that encouraging a culture of integration within a company makes good business sense. Valuing and preferring differences in backgrounds and perspectives of group members creates an environment that enables new insights in the development of products, services, and marketing.

## **Achieving a Competitive Edge**

Employing people with disabilities may give a business a competitive edge by enhancing its profitability and reputation. Through research, businesses can learn how incorporating diversity into their workplace gives them a competitive advantage in the business world. One way is to use their diversity efforts as a marketing tool and publicize these efforts through avenues such as advertising, packaging, press campaigns, and Web sites. Success stories that show the value of employing people with disabilities can be effective marketing tools.

### **Strategy 1: Recommendations**

***Link the employment of people with disabilities to the diversity movement by studying:***

- How companies can integrate disability into their business plans;
- Disability and diversity awareness training for supervisors and co-workers;
- The difference between corporate diversity policies and actual diversity practices;
- Whether diversity practices include retention efforts such as disability management and return-to-work programs;
- Whether organizations that practice diversity in their workplace believe that employing people with disabilities increases diversity;
- The effect of workplace diversity policies on the employment of people with disabilities; and
- The culture of organizations of all types to determine how diversity policies in companies affect people with disabilities in the workplace.

## Strategy 2: Show how changing demographics and trends will affect the workplace and how people with disabilities fit in

Researchers need to identify and track major trends and changes in demographics that affect the workplace and, in particular, how such trends affect the employment of people with disabilities. To understand the trends, they will need to accumulate, organize, and summarize the research and then translate it. See the sidebar, Trends and Demographics That Affect the Workplace.

Trends include:

### Global changes

- Increase in global competition
- Outsourcing of jobs

### Workforce skills

- The shift of work away from manufacturing toward the service sector
- The rising role of “knowledge workers” in an era increasingly dominated by computers and the need for creative problem-solving skills

### Labor pool

- The aging American workforce. This workforce is a potential new talent pool, but one that comes with an increased risk of disability.
- The shrinking workforce. As Baby Boomers (birth years 1946–1964) approach retirement, labor shortages may occur over the next decade.
- The obesity epidemic. The growing girth of Americans can have considerable effects on the health of the future workforce.

### Work culture

- Changing work culture as more employers consider work-life balance and allow flexible work schedules, teleworking, and job sharing
- Rising health care premiums for employers and employees
- Declining employee benefits, such as health care coverage and pensions
- Changing loyalties of employers and employees toward each other.

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### Trends and Demographics That Affect the Workplace

- How will preparing for an aging workforce provide a competitive advantage?
- What workforce skills will be needed in the future?
- Why is it a competitive advantage to operate in the United States?
- How will the projected increase in obesity affect the number of people with disabilities who enter the workforce?
- What is the present and future demand for labor?

Workers' loyalty toward their employers is less prevalent as workers switch jobs and even careers multiple times over their lives. On the other hand, employers' loyalty towards their employees is changing as American businesses move their operations to other countries and offer fewer benefits, such as health insurance.

- Increased demand for temporary workers and telecommuters facilitated by developments in computer technologies. It may be easier to find jobs, but workers are at greater risk of losing jobs because of possible layoffs, outsourcing, and downsizing.

## Strategy 2: Recommendations

***Show how changing demographics and trends will affect the workplace and how people with disabilities fit in by:***

- Determining the skills needed in the current and future (next 10–20 years and beyond) workforce and how that will affect people with disabilities. Answer questions such as:
  - Will the job structure change?
  - Will there be certain shortages within certain industries and in certain geographic areas?
- Studying the present and future demand for labor by analyzing trends and making projections to determine:
  - Current vs. future skills needs within different market sectors; and
  - How this affects people with disabilities.
- Studying the aging workforce and how it:
  - May add to labor shortages; and
  - May also provide a potential new pool of talent, but one that comes with a higher likelihood of disability.
- Studying how projected increases in obesity will increase the number of people with disabilities who are in the workforce;
- Researching employer-provided training, benefits, and supports for people with disabilities to determine if they increase retention rate;
- Using productivity study findings to show the impact of hiring people with disabilities and presenting data to employers through success stories; and
- Studying the economic costs of employing people with disabilities.

## Strategy 3: Study the different elements of the employment process — hiring, retention, and skill development

Researchers need to break down the employment process. Different factors affect different parts of the process — hiring, retention, and development of skills in people with disabilities. For example, employer incentives to hire a person with disability may not necessarily influence retention. Currently, there is more information on hiring than on what happens after people enter the workplace. The sidebar, Hiring, Retention, and Workforce Skills, lists potential research questions on this topic.

Employers are particularly worried about retention because of high recruitment and training costs. To address this issue, some employers offer disability management programs and benefits such as health insurance and retirement plans, and have developed innovative approaches, such as offering employees life-long learning accounts, family support, and even below-market interest loans for first-time home ownership.

In researching the employment process, it is important to note who is involved. Some key players are human resource personnel, who are responsible for much of the recruitment, screening, and practice that affects the hiring of people with disabilities, and service providers, including rehabilitation specialists, who assist people with disabilities in their job search.

### Job Accommodations

During the hiring process, employers may be uncertain about the kinds and costs of accommodations, but once people are hired, accommodations usually are not a problem. Accommodations actually can be viewed as having a positive effect in the workplace: they have the potential to improve the performance and work satisfaction of many employees and lead to innovative practices in the workplace.

### Skill Development

People with disabilities and those involved in their education need to ask:

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### Hiring, Retention, and Workforce Skills

- Do employer incentives for hiring people with disabilities work?
- What factors lead to people with disabilities leaving their jobs prematurely? What approaches can be taken to prevent this?
- What has been the effect of ADA and other federal programs and policies on increasing the employment of people with disabilities?
- What are the experiences and attitudes of people within an organization such as human resource personnel, job trainers, and co-workers, with the employment of people with disabilities?
- What are employer attitudes toward hiring people with disabilities?
- How do employers find people with disabilities to hire?
- How do employers interview people with disabilities and address accommodations?
- How can corporations partner with community colleges, universities, K–12 schools, and local agencies to prepare people with disabilities for the workplace?

What skills (including basic academic skills) will be needed in the future? What education and training are needed to acquire these skills? This preparation needs to begin early (in elementary school) and continue throughout a person's lifespan. But instead of being a set course, it is a dynamic process. As workforce needs change, new skills will be needed. Particularly important are transition ages and stages (from high school or college to the workplace), and changes in assistive technology that allow a person with a disability to perform a different kind of work.

## Public Policy

Public policy efforts to promote hiring efforts by businesses (e.g., Work Opportunity Tax Credit, Architectural/Transportation Tax Deduction, etc.) have not been matched by initiatives that address long-term retention of employees with disabilities and those who return to work after the onset of a disabling condition. The overall level of employment among people with disabilities has remained relatively unchanged, partly due to this focus on hiring rather than retention.

Researchers need to study the effect of federal and state programs and policies, such as the ADA, Social Security benefits, and Medicare on the employment of people with disabilities, as well as to study how these programs and policies can be integrated across agencies.

## Strategy 3: Recommendations

***Study different elements of the employment process — hiring, retention, and skill development by researching:***

- How employers recruit people with disabilities, and effective ways to recruit them;
- The interview process, and how the need for accommodations may affect hiring;
- The effectiveness of retention strategies such as wellness programs, life-long learning accounts, family support, flexibility in the workplace, prevention of disability, disability management, and accommodations;
- How accommodations can affect the performance of all people in the workplace;
- Different disability categories and appropriate accommodations, accommodations that might be needed for those who return to work after an illness or injury, and how to convey this information to employers;
- Whether organizational culture fosters the development of careers in people with disabilities, and if so, a quantifiable measure of how;



- Interventions and transition programs for different life stages and events for people with disabilities over their entire lifespan to prepare them for workforce skills needed in the future; and
- Potential partnerships with community colleges, universities, K–12 schools, and local education agencies to educate people with disabilities for the future.

## Strategy 4: Show how disability management and wellness programs affect health and productivity in the workplace

With the high costs of health care, global competition, the need for highly skilled and productive workers, and high training costs, many employers have devoted extensive resources to maintaining the health and productivity of their workforce. Their focus is on preventing health conditions and managing them when they occur. Employers are concentrating on retaining their workers, as well as decreasing absenteeism and presenteeism. Trends in disability management include:

- Prevention programs;
- Programs on safety;
- Wellness and health care management programs;
- Job modification strategies; and
- Provision of accommodations.

The provision of accommodations and return-to-work services are not one-time events but rather long-term efforts that require a changing mix of accommodations and supports over time as health needs, functional status, or work demands change. Skilled support staff within organizations is needed to deal with all these issues.

### Public Policy

Many employers are struggling with the issue of how to provide health and disability management programs. Through initiatives such as incentives and supports, public policy-makers and service systems may be able to assist employers with these programs. Public policy-makers must understand that managing the health and productivity of all workers is a central business issue for every employer. Reducing the progression of private-sector employees to public-sector disability benefits such as SSDI is one potential outcome of successful employer efforts to sustain health and employment.

Public policy-makers can benefit from the experiences of forward-looking companies and align programs and policies in a way that supports employers who invest in comprehensive retention programs, thereby reducing the burden on the nation's public disability rolls. The sidebar, Health, Disability, and Management, presents questions to answer on the relationship between disability management programs and the use of public benefit programs, as well as on other topics related to business, health, and disability.

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## Health, Disability, and Management

- What are the causes of absenteeism and lost productivity?
- Do comprehensive disability management practices enhance employee productivity while controlling benefit costs?
- What kinds of benefit measures are likely to promote productivity of all employees?
- How can data on absence and use of benefits lead to prevention initiatives that focus on health and productivity?
- How do disability management programs affect diversity in the workplace?
- What is the role of the government in providing support for disability management programs?
- What is the relationship between disability management programs and public benefit programs?

## Strategy 4: Recommendations

***Show how disability management and wellness programs affect health and productivity in the workplace by:***

- Studying how preparing for an aging workforce and age-associated disabilities can give companies a competitive advantage;
- Studying issues in disability management such as:
  - Validation and refinement of predictive modeling assumptions and return-to-health and return-to-work strategies; and
  - The obesity epidemic and how that will affect disability management.
- Researching public and private partnerships for providing disability benefits;
- Establishing public and private partnerships with entities such as business coalitions to study business, health, and disability management; and
- Conducting research to better show how various impairments limit major areas such as work and activities of daily living, and how these trends have changed over time.

## Strategy 5: Understand the corporate culture

To make research relevant to employers, researchers need an understanding of how the business world thinks and speaks. For example, CEOs think in terms of markets, products, and sales, and want to know how a business decision, such as hiring people with disabilities, will affect their bottom line. But not all businesses are alike. Researchers need to understand the differences and similarities among employers in numerous categories, such as for-profit or non-profit; service- or product-oriented; small, medium, or large; and domestic or multinational.

Researchers also need to delve into the inner workings of a particular organization being studied by getting “inside” the minds of the people at all levels of the organization. The following information will be helpful:

- The beliefs, values, practices, needs, and expectations of the employer and employees, from the CEO to the human resource professional and the first-line supervisor, on hiring and working with people with disabilities;
- The policies and practices for employing people with disabilities;
- The legacy a CEO wants to leave (e.g., does the CEO want to be known for his or her contributions to the community?);
- The policies on wellness and disability management;
- Current and future skills needed in the workplace; and
- How teams work together and how management works with the line worker.

### Engage Employers in Research

Employers and people within all levels of the organization, from human resources to marketing and the CEO, as well as people with disabilities and advocates, all need to be involved in the entire research process. To engage employers in this process, researchers will need to be able to answer employers’ questions. Employers will want to know how they will benefit and whether any costs, direct or indirect (e.g., disruption of normal op-

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### What Businesses Want to Know

- How will employing people with disabilities affect my bottom line (profits)?
- How will employing people with disabilities affect the cost of healthcare benefits?
- What kind of customer service will employees with disabilities offer?
- How will customers react to being served by a person with a disability?
- How will my employees who don’t have disabilities view and work with people with disabilities?
- What kind of accommodations do I need to offer, and how much will they cost?
- How will employing people with disabilities affect my relationship with the community?
- What are other companies’ experiences in employing people with disabilities? Are there success stories?
- How do I find people with disabilities to hire?

erations), are involved. To gain employers' attention, researchers can link their work to reducing health care costs, changing demographics (the aging workforce), and the global workforce. Intermediary groups knowledgeable about the inner workings of business can help researchers connect with employers and foster collaboration and commitment. The sidebar, What Businesses Want to Know (page 69), is a list of questions businesses may have about employment of people with disabilities.

## Strategy 5: Recommendations

### *Understand the corporate culture by:*

- Exploring how the dynamics of the corporate culture (espoused policies, everyday practices, and supervisor and co-worker attitudes) influence the hiring, integration, and career advancement of disabled persons;
- Involving people from human resources, public relations, marketing, technical, legal, design (accessibility and architecture of office design), management, and customer services, as well as the CEO, in the research process;
- Providing incentives for employers to engage in the research;
- Identifying employers' most pressing needs and showing them how the research will address those needs;
- Using intermediaries, such as The Conference Board and Society for Human Resource Management, to work with employers; and
- Addressing confidentiality and risk in data-gathering, which are serious employer concerns.

## Strategy 6: Balance science with relevance in the research design

Researchers are accustomed to conducting rigorously designed and well-executed studies. However, companies need research to give them information that is relevant to their business, such as how employing people with disabilities will affect their productivity and profits. Researchers often design and conduct longitudinal studies spanning 5–10 years, whereas businesses need the information within 6 months or a year. How can the nexus between scientific rigor and relevance be found?

### Conduct Different Types of Research

***Quantitative and qualitative research.*** Employers need quantitative measures, such as how employing people with disabilities will affect their profits and what

costs will be involved (e.g., health care and accommodation costs). But they also want qualitative research that sheds light on complex situations involving interdependent individuals, organizations, groups, and systems. This kind of research can unveil the connection between the employment of people with disabilities and productivity or community relations.

***Longitudinal vs. real-time research.*** A compromise needs to be reached between long-term studies of 5–10 years and real-time studies — those that fit into a typical business decision cycle. Strategies involving products and productivity can change frequently in the business world, but longitudinal research is also valuable. For example, this type of research can unearth how employees with disabilities fare in corporations over time and track the long-term effects of changes in corporate policies, practices, and culture.

***Understanding trends.*** To understand business trends, researchers need to accumulate, organize, and summarize the research, and then translate it for application in the workplace. No single study is definitive, so meta-analyses are needed.

### **Define Key Terms: *People with Disabilities and Employment***

To study people with disabilities in the workplace, researchers need a better definition of people with disabilities. This is not a single population but one that is heterogeneous: its members have widely varying abilities and needs. Because the consensus definitions of disability go beyond impairments and include activity limitations (e.g., for work), research is needed to better show how various impairments limit major activities and how these trends have changed over time.

Similarly, a better definition of employment is needed. Employment status alone doesn't give the entire picture. Many people with disabilities participate in “non-standard” jobs: part-time, temporary, and independent contractor positions. These jobs may provide fewer benefits and supports than people with disabilities need in the workplace.

### **Collect Data**

A more comprehensive coverage of the issues through major surveys may provide a greater understanding of the relationships among impairments, disability, and work. One method might be to expand the samples of disabled individuals periodically in some of these surveys and to ask more detailed questions on impairment, activity limitations, and disability. At the federal level, the government has the infrastructure and resources to perform a census of people with disabilities and conduct longitudinal studies.

## Strategy 6: Recommendations

*Balance science with relevance in the research design by:*

### **Timeliness of Surveys**

- Striking a balance between long-term studies of 5–10 years and real-time studies — those that fit into a typical business decision cycle.

### **Methodologies of Surveys**

- Gathering different types of qualitative data (e.g., through anecdotal research and case studies) and conducting short- and long-term quantitative studies;
- Conducting longitudinal studies of Americans with disabilities to enhance understanding of this population;
- Studying written policies and procedures and observing employer practices; and
- Developing case studies with a standard design that enables some generalization across market sectors and across employer organizations of different sizes.

### **Data Sources**

- Collecting local and state data;
- Designing and executing a nationwide census of people with disabilities to:
  - Measure and analyze employment trends.
  - Increase the quantity and improve the quality of data on people with different types of disabilities.
  - Assess the implications of this information for employment of people with disabilities.
- Bringing together employers, researchers and those on the supply side — people with disabilities and policy experts — to create research questions;
- Tapping the international community as a source of ideas and information on disability research;
- Strengthening existing data sources by working with people and organizations that are involved with population surveys while recognizing the challenges involved in attempting to make any changes in such surveys; and



- Considering data sources in the private sector such as the insurance industry, which maintains data on filing of disability claims, as well as entities that represent the insurance industry such as the American Health Insurance Plans (however, much of this information is proprietary).

### **Definition of Key Terms**

- Developing a common language or standard definition of “disability” by working with representatives of the different entities and sectors that use the term in research;
- Studying people with disabilities who have different levels of education and work experience; different types of disabilities such as cognitive or sensory, as well as acquired and life-long disabilities; and differences in the types of support they need;
- Studying people who become disabled while working. For example:
  - What happens to workers who go on short-term disability or long-term disability (e.g., do they return to the workforce)?
    - ♦ What types of workers are most likely to go on short-term or long-disability?
    - ♦ How much morbidity and mortality in the workplace is the result of medical errors or medical mismanagement, and does it relate to people leaving the workforce, either temporarily or permanently?
- Developing standard definitions of employment;
- Studying public and private employers, businesses of different sizes, and current and future skills needed by employers; and
- Studying support systems such as service providers (e.g., vocational rehabilitation, employment networks under the U.S. Social Security Administration’s Ticket to Work Program, and workforce development systems) that are central to the conversation about how to change the employment status of people with disabilities.

### **Different Study Models**

- Creating a community health model to study different employment-related interventions;
- Seeking out alternative models to support small businesses in providing accommodations; and
- Researching different models of public/private relationships (e.g., insurance companies that support small businesses in hiring, accommodating, and promoting career development in people with disabilities).

## Strategy 7: Translate research into language and formats employers can understand and use

Research needs to be translated into language and formats that employers, policy-makers, and advocates can understand and use. For the business community, the data may need to be tailored for different audiences within the workforce, such as those involved in recruitment, supervision, disability management, and health benefits. Employers have expressed a desire for the data to be depicted through success stories and case studies to give them “real life” examples. They want to hear about similar employers and share data with them. Tailoring data allows meaningful comparisons to be made of corporate policies and cultures, helps identify what works in companies that have been successful, and facilitates the development of best practices. Additionally, employers want easy-to-use workplace tools that can help them hire and retain people with disabilities.

The research data should be marketed to all those involved in the employment of people with disabilities. Strategies include:

- Placing articles in the metro, news, and business sections of newspapers;
- Topping the press materials with the disability angle for the specialty press;
- Identifying in-house staff members with disabilities who are prepared to

represent the company and can pitch the people or products, not the disability; and

- Publishing across disciplines to foster integration.

### Translating Research into Practice

- What are the most effective ways to publicize the research to employers, public policy-makers, and advocates (e.g., through newspapers, Internet, reports)?
- What are the most effective ways to convey the research results — in charts, success stories, “day-in-the-life” stories, etc.?
- Is creating a clearinghouse for disability research feasible?

Marketing and public relations experts may need to assist researchers with these tactics. Researchers also may want to determine which tactics are most effective. See the sidebar, Translating Research into Practice, for questions on potential tactics.

## Strategy 7: Recommendations

*Translate research into language and formats employers can understand and use by:*

- Tailoring the data for different audiences within the workforce, such as those involved in recruitment, supervision, disability management, and health benefits;

- Developing promising business practices and case studies to give employers “real life” examples they can relate to of how the data can be used;
- Applying the data to create easy-to-use workplace tools that can help organizations bolster meaningful employment of people with disabilities;
- Marketing the data with traditional marketing strategies that may be novel to the research community. For example:
  - Edit copy for media kits and presentations to ensure audience-friendly language.
  - Have a line-up ready of staff members with disabilities who can represent the company (e.g., “a day in the life” story of someone with a disability).
  - Make media training available to researchers.
- Disseminating data through more diverse and mainstream channels, such as:
  - Business and trade organizations (e.g., U.S. Chamber of Commerce) and conferences;
  - Publications that target business leaders, the popular press, and business and news sections of newspapers and magazines (e.g., submit stories about companies that employ people with disabilities); and
  - A clearinghouse for disability research, if such a clearinghouse is feasible.

## **Strategy 8: Facilitate the collaboration of researchers, business leaders, policy-makers, and advocates in addressing employer-side research**

Researchers, business leaders, policy-makers, and advocates have a mutual goal: to improve employment outcomes for people with disabilities. To accomplish that goal, they need to work together as partners. But first they need to understand each other, because these groups have different terminology, goals, and information needs. The Summit provided a welcome opportunity for these groups to start the dialogue, but it needs to continue.

## Strategy 8: Recommendations

*Facilitate the collaboration of researchers, business leaders, policy-makers, and advocates in addressing employer-side research by:*

- Creating opportunities for these groups to continue to meet to exchange information and better understand their differing terminology, goals and objectives, and information needs; and
- Continuing the dialogue started at the Summit.

## Strategy 9: Create public/private partnerships to increase employment of people with disabilities

Researchers need to study which public and private partnership initiatives can stimulate the employment of people with disabilities and how they can best do so. Partnerships can be set up to:

- Offer hiring and retention incentives;
- Protect work capacity (the ability to perform work);
- Provide employer relief for medical costs, implement disability management programs, align retirement benefits, and keep benefits portable; and
- Create a research agenda, conduct demonstration projects, and build research capabilities.

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### Public/Private Partnerships

- What kind of partnerships can be formed to assist employers in offering disability health benefits?
- What is the effect of public/private employment partnerships on long-term job tenure and earnings?
- How can the role of business coalitions and public/private partnerships be expanded? Will strategies such as training and technical assistance, information-sharing, employee-sharing, supervisor-sharing, and incentives work?

EARN, which is funded by ODEP, is one example of a program that uses public/private partnerships to increase the employment of people with disabilities. As the provider of free disability consulting and candidate sourcing services, EARN builds key partnerships with businesses to accomplish its mission. See the sidebar, Public/Private Partnerships, for related research questions.

## Strategy 9: Recommendations

***Create public/private partnerships to increase employment of people with disabilities by answering questions such as:***

- What kind of partnership can be formed to assist employers in offering disability health benefits?
- What is the effect of public/private employment partnerships on long-term job tenure and earnings?
- How can we expand the role of business coalitions and public/private partnerships? Will strategies such as training and technical assistance, information-sharing, employee-sharing, supervisor-sharing, and incentives work?
- What is the effect of public/private employment partnerships on long-term job tenure and earnings?

## Strategy 10: Encourage governments to serve as models for employing of people with disabilities

Public employers — federal, state, and local governments, and private for-profit corporations that are involved in government contracts — can serve as models for others in employing people with disabilities. For example, they can demonstrate leadership in hiring people with disabilities, and they can build “best practice” requirements for hiring people with disabilities into their own contracts for goods and services.

Government strategies on employing people with disabilities should be studied; effective ones should be replicated in the private sector when appropriate, and then publicized. Researchers also need to study employment strategies that government can support, including supported employment, supported entrepreneurship, customized job development and disability awareness training in corporations, and co-worker support programs. The sidebar, *Governments’ Employment Practices*, gives a list of potential research questions.

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### **Governments’ Employment Practices**

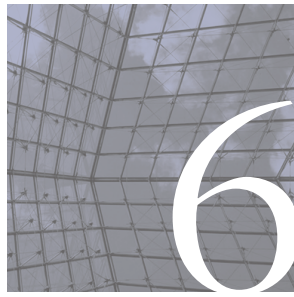
- What successful hiring and retention strategies can be replicated in the private sector?
- How can these successful strategies be adapted for, assembled, and disseminated to the private sector?
- What demonstration projects would be useful?
- How can the federal government work with state and local governments to increase the employment of people with disabilities?

## Strategy 10: Recommendations

*Encourage governments to serve as models for employment of people with disabilities by:*

- Studying government practices in employing people with disabilities through demonstration projects;
- Building “best practice” requirements for hiring people with disabilities into their own contracts for goods and services;
- Studying government strategies on employing people with disabilities, replicating effective ones in the private sector when appropriate, and publicizing them; and
- Studying employment strategies that government can support, including supported employment, supported entrepreneurship, customized job development, and disability awareness training in corporations and co-worker support programs.



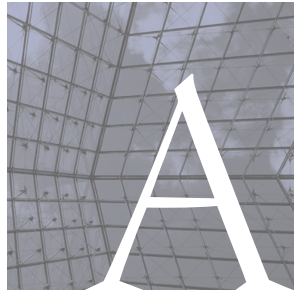


## Conclusion

This Summit was the beginning of a dialogue among researchers, business leaders, policy-makers, and advocates on employer-side research. Business leaders and advocates expressed their concerns about the lack of data on employer-side research and workforce trends, including rising employer health care premiums, the obesity epidemic, and the aging workforce. Researchers heard that they needed to balance science with relevance. Marketing experts suggested that researchers use case studies and success stories to convey research results. And those in the disability management field emphasized the importance of forming partnerships with public and private entities to conduct research on health and disability issues.

The federal government is committed to supporting initiatives to increase the employment and economic status of people with disabilities. The ISE, through the ICDR, intends to keep the momentum and enthusiasm from this Summit alive and to find ways for people from the business and research arenas to continue their conversation. From the Summit's findings and from continuing dialogue, the ISE will create a national research agenda, supported across federal agencies, which will focus on the research needs of American industries and businesses. The ISE also will explore supply-side employment research and the possibility of convening another state-of-the-science meeting on the employment of people with disabilities.

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## Appendix A: Agenda

Interagency Committee on Disability Research  
Interagency Subcommittee on Employment

### Employer Perspectives on Workers with Disabilities: A National Summit to Develop a Research Agenda

September 19-20, 2006

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*Tuesday, September 19, 2006*

**7:30-8:15**      **Registration and Continental Breakfast**

**8:15-8:30**      **Opening Remarks and Introduction**

*Interagency Subcommittee on Employment Co-chairs:*

Richard Horne, Ed.D., Supervisory Research Analyst,  
Office of Disability Employment Policy, U.S. Department of Labor

Constance Pledger, Ed.D., Associate Director, Research Sciences,  
National Institute on Disability and Rehabilitation Research,  
U.S. Department of Education

**8:30-9:15**      **Keynote Speaker: Disability Employment Research:  
Establishing Employer and Employee Goals**

Neil Romano, President, America's Strength Foundation  
and the Romano Group

**9:15-10:30**      **Panel: State of the Research**

- Jennifer Schramm, M.Phil., Manager, Workplace Trends and Forecasting, Society for Human Resource Management
- Peter Blanck, Ph.D., J.D., University Professor and Chair, Burton Blatt Institute, Syracuse University
- Bobby Silverstein, J.D., Director, Center for the Study and Advancement of Disability Policy

**Moderator:** Richard Horne, Ed.D., Office of Disability Employment Policy, U.S. Department of Labor

**10:30-10:45 Morning Break**

**10:45-12:00 Panel: Employers as Customers of Research**

- Ronald Woo, M.B.A., Technical Consultant, Liberty Mutual Group
- Linda Barrington, Ph.D., Research Director, The Conference Board
- Kathy Durbin, Director of Benefits, H-E-B

**Moderator:** Constance Pledger, Ed.D., National Institute on Disability and Rehabilitation Research, U.S. Department of Education

**12:00-12:15 Afternoon Break**

**12:15-1:15 Luncheon and Keynote Speakers**

Steven James Tingus, M.S., C.Phil.  
Chair, Interagency Committee on Disability Research  
Director, National Institute on Disability and Rehabilitation Research, U.S. Department of Education

Olegario D. Cantos VII, Esq.  
Associate Director for Domestic Policy  
The White House

**Facilitator:** Constance Pledger, Ed.D., National Institute on Disability and Rehabilitation Research, U.S. Department of Education

**1:15-1:30 Afternoon Break**

**1:30-2:30 Concurrent Panel Sessions 1 and 2**

**Panel Session 1:** *Changing the Employer/Worker Relationship—Methods Contributing to Industry Productivity and Healthy Workforce*

- Pamela Loprest, Ph.D., Principal Research Associate, The Urban Institute
- Tyler Matney, Marketing Manager, Employer Assistance & Recruiting Network (EARN)
- Robert S. Rudney, Ph.D., Associate, Booz Allen Hamilton

**Moderator:** Fredrick Menz, Ph.D., Department of Rehabilitation and Counseling, University of Wisconsin-Stout

**Panel Session 2:** *Organizational Culture*

- Benjamin Kempner, M.B.A., Program Director, IBM Worldwide Human Ability and Accessibility Center
- Adrienne Colella, Ph.D., Associate Professor, Tulane University

**Moderator:** Robert Stensrud, Ph.D., Drake University

- 2:30-2:45**      **Afternoon Break**
- 2:45-4:00**      **Concurrent Discussion Sessions**
- Topic:** *Changing the Employer/Worker Relationship—Methods Contributing to Industry Productivity and Healthy Workforce*
- Breakout Session 1A:**
- Facilitators:** Richard Horne, Ed.D., Office of Disability Employment Policy, U.S. Department of Labor and Fredrick Menz, Ph.D., Department of Rehabilitation and Counseling, University of Wisconsin-Stout
- Breakout Session 1B:**
- Facilitators:** Constance Pledger, Ed.D., National Institute on Disability and Rehabilitation Research, U.S. Department of Education and Robert Stensrud, Ph.D., Drake University
- Topic:** *Organizational Culture*
- Breakout Session 2A:**
- Facilitators:** Beth Bienvenu, Ph.D., Office of Disability Employment Policy, U.S. Department of Labor and Corinne Kirchner, Ph.D., Policy Research and Program Evaluation, American Foundation for the Blind
- Breakout Session 2B:**
- Facilitators:** Edna Johnson, Ph.D., National Institute on Disability and Rehabilitation Research, U.S. Department of Education and Mitchell LaPlante, Ph.D., Department of Social and Behavioral Sciences, University of California at San Francisco
- 4:00-5:00**      **Reporting from Breakout Session Discussions and Wrap-up**
- Facilitators:** Richard Horne, Ed.D., Office of Disability Employment Policy, Department of Labor and Constance Pledger, Ed.D., National Institute on Disability and Rehabilitation Research, U.S. Department of Education

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**Wednesday, September 20, 2006**

**7:30-8:30**      **Registration and Continental Breakfast**

**8:30-9:15**      **Opening Keynote Address**

Charles A. Riley, Ph.D., Associate Professor, Baruch College and Co-founder, WeMedia

**Concurrent Panel and Discussion Sessions 1, 2, 3 and 4**

**Panel and Discussion Session 1:**

*Retention, Hiring and Skills for the Future*

- Vince Taylor, Vice President and Director, Human Capital Management Center, the CNA Corporation
- John Kregel, Ed.D., Professor, Virginia Commonwealth University
- Rochelle Habeck, Ph.D., Research Consultant, Habeck & Associates

**Moderator:** Beverlee Stafford, Rehabilitation Services Administration, U.S. Department of Education

**Facilitators:** Beth Bienvenu, Ph.D., Office of Disability Employment Policy, U.S. Department of Labor and Edna Johnson, Ph.D., National Institute on Disability and Rehabilitation Research, U.S. Department of Education

**Panel and Discussion Session 2:**

*Business, Health and Disability Management*

- Brian McMahon, Ph.D., Professor, Virginia Commonwealth University
- Heidi Bimrose, M.A., Director, Health and Productivity Development, UnumProvident
- Robert Anfield, M.D., J.D., Regional Medical Director, Disability Administration, Aetna

**Moderator:** Denise Burton, Ph.D., Office of Research and Development, Rehabilitation Research and Development Service, U.S. Department of Veterans Affairs

**Facilitators:** Eileen Elias, M.Ed., Office on Disability, U.S. Department of Health and Human Services and Edward Brann, M.D., M.P.H., Division of Human Development and Disability, Centers for Disease Control and Prevention

**Panel and Discussion Session 3:**

*Demographics, Data and Statistics for Employers*

- Jim Curcio, M.B.A., Senior Project Consultant for Health, Productivity and Disability, National Business Group on Health
- David Wittenburg, Ph.D., Senior Researcher, Mathematica Policy Research
- Burt Barnow, Ph.D., Associate Director for Research, Institute for Policy Studies, Johns Hopkins University

**Moderator:** Terence McMenamin, M.A., Bureau of Labor Statistics, U.S. Department of Labor

**Facilitators:** Corinne Kirchner, Ph.D., Policy Research and Program Evaluation, American Foundation for the Blind and Fredrick Menz, Ph.D., Department of Rehabilitation and Counseling, University of Wisconsin-Stout



**Panel and Discussion Session 4: *Role and Effect of Government***

- Stephen M. Wing, Director, Government Programs, CVS/pharmacy
- Peter Blanck, Ph.D., J.D., University Professor and Chair, Burton Blatt Institute, Syracuse University
- Janna Starr, Employment and Transportation Policy, Disability Policy Collaboration

**Moderator:** Mitchell LaPlante, Ph.D., Department of Social and Behavioral Sciences, University of California at San Francisco

**Facilitators:** Bob Hartt, Committee for Purchase from People Who Are Blind or Severely Disabled, and June Crawford, Ed.M., National Institute for Literacy

**11:30-1:00 Luncheon and Keynote Speaker**

John H. Hager, M.B.A., Assistant Secretary,  
Office of Special Education and Rehabilitative Services,  
U.S. Department of Education

**Facilitator:** Richard Horne, Ed.D., Office of Disability Employment Policy, U.S. Department of Labor

**1:00-2:30 Breakout Session Reporting**

**Facilitator:** Constance Pledger, Ed.D., National Institute on Disability and Rehabilitation Research, U.S. Department of Education

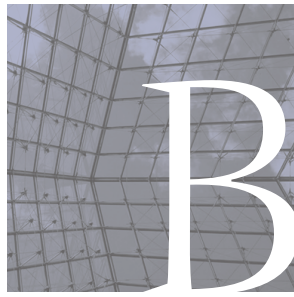
**Moderator:** Richard Horne, Ed.D., Office of Disability Employment Policy, U.S. Department of Labor

**2:30-2:45 Afternoon Break**

**2:45-3:30 Next Directions**

Adrienne Colella, Ph.D., Associate Professor, Tulane University  
Michael Morris, J.D., Managing Director, Burton Blatt Institute,  
Syracuse University

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## Appendix B: List of Participants

Nathan D. Ainspan, Ph.D.  
Senior Advisor - Human Capital  
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in Rural Communities  
The University of Montana

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IBM Research - Human Ability and Accessibility Center

Elcio R. Barcelos  
Vice President - Executive Recruiting Manager  
Wells Fargo Bank

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Associate Director for Research  
Johns Hopkins University  
Institute for Policy Studies

Linda Barrington, Ph.D.  
Research Director  
Labor Economist Management Excellence  
The Conference Board

Beth M. Bienvenu, Ph.D.  
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Office of Disability Employment Policy  
U.S. Department of Labor

Heidi E. Bimrose, M.A.  
Director, Health and Productivity Development  
UnumProvident

Peter Blanck, Ph.D., J.D.  
University Professor and Chair  
Burton Blatt Institute  
Syracuse University

Crystal R. Blyler, Ph.D.  
Social Science Analyst  
Substance Abuse and Mental Health Services  
Administration

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Director, Division of Human Development and Disability  
Centers for Disease Control and Prevention

Matthew W. Brault  
Statistician  
U.S. Census Bureau

Susanne M. Bruyere, Ph.D.  
Director, Employment and Disability Institute  
Cornell University

LaDonna R. Bryant  
Intern, National Institute on Disability and  
Rehabilitation Research

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Tulane University

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Booz Allen Hamilton

June J. Crawford, Ed.M.  
Senior Program Associate  
National Institute for Literacy

James A. Curcio, M.B.A.  
Senior Project Consultant  
National Business Group on Health

Kathy Durbin  
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H-E-B

Joan Durocher, J.D.  
Senior Attorney/Advisor  
National Council on Disability

Ron Edwards, Ph.D.  
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Equal Employment Opportunity Commission

Eileen Elias, M.Ed.  
Deputy Director, Office on Disability  
U.S. Department of Health and Human Services

Thomas E. Finch, Ph.D.  
Chief, Service Program Unit  
Office of Special Education Rehabilitative Services  
Rehabilitation Services Administration  
U.S. Department of Education

Margaret Giannini, M.D., F.A.A.P.  
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U.S. Department of Health and Human Services

Elaine Gilby, Ph.D.  
Economist  
Office of Program Development and Research  
Office of Disability and Income Security Programs  
Social Security Administration

Rochelle V. Habeck, Ph.D.  
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Committee for Purchase From People Who Are Blind or  
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Institute for a Competitive Workforce

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U.S. Department of Labor

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National Institute on Disability and Rehabilitation  
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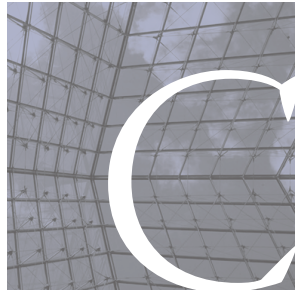
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## Appendix C: White Papers

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# Asset Accumulation & Economic Security

*Prepared by:*

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## (1) Overview

People with disabilities must achieve, and should be able to aspire to, a certain minimal level of economic security through, accompanying, and independent of, employment if employment rates for people with disabilities are to increase significantly in the United States (McClane, 2005; Mendelsohn, 2006; N.O.D., 2002). Overall quality of life and health are associated also with asset ownership (Beeferman, 2001). Yet, individuals with disabilities are comparatively asset poor to those without disabilities. The majority of Americans with disabilities do not possess savings or checking accounts (N.O.D./Harris, 2004). In spite of landmark civil rights advances, in 2005 one third (34%) of persons with disabilities lived in households earning \$15,000 or less annually, compared to 12% among their non-disabled peers (N.O.D., 2004; see also Schmeling, Schartz, Morris, & Blanck, 2006).

The changing employer demand for skills (Blanck, Hill, Siegel, & Waterstone, 2003; 2005), declining availability of health coverage for all Americans (Kuttner, 2001), interaction of the Internal Revenue Code with government benefits, availability of accessible housing (Mendelsohn, 2006), eligibility requirements of needs-based benefits programs (Ball, Hartnette, Morris, & Blanck, 2006; Mendelsohn, 2006), and employer attitudes toward hiring and accommodating persons with disabilities

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(Blanck, Hill et al., 2003; Schur, Kruse & Blanck, 2005) combine to make asset accumulation impractical and produce low employment rates of persons with disabilities. Although the ability to accumulate assets clearly has a central role in economic security, the disability community largely has been kept from meaningful participation in this activity (Mendelsohn, 2006). Many persons with disabilities choose not to earn more, lest they become ineligible (via means- or needs-based eligibility requirements) for essential, government income assistance and health benefits services (Mendelsohn, 2006).

Values inherent in U.S. society long have viewed work ethic and employment as a moral solution to individual problems (Blanck, 2001; Mendelsohn, 2006). Nonetheless, social policies have not ignored the circumstances of those viewed as incapable of work. Social programs such as SSI, SSDI and Medicaid were created to shield this population from destitution. As a result, eligibility for federal programs to assist persons with disabilities, historically has turned on whether the person is able to work, a construction criticized as a harsh, “all-or-nothing dichotomization” (Mendelsohn, 2006). Among disincentives to engagement in employment, the likely loss of comprehensive health insurance is most problematic. Mendelsohn (2006) notes: “While we admire the idealism, courage and optimism of an individual with complex medical involvements who would trade the security of health insurance under Medicare for a job with no health coverage and no security, we cannot be surprised if only few would voluntarily make this choice.” Consequently, permanent escape from poverty requires reliable health insurance that provides for medical needs of varied individuals with disabilities, coupled with meaningful employment proportionate to the amount of work the individual is capable of performing, and the opportunity to freely save earnings and acquire assets — unencumbered by means-based determinations. Quality of life beyond mere escape — a level of personal independence such as through home ownership, transportation and accessibility in the community, and the ability to save and invest for retirement — requires both change in employer attitudes and government policies, and a dramatic increase in the availability of accessible and affordable housing.

## **(2) Discussion of Major Perspectives and Issues**

### **Means-tested benefits programs**

Eligibility for means-tested benefits — such as SSI, SSDI and Medicaid — by definition, limits the beneficiary’s ability to create personal savings or accumulate assets (Ball, Morris, Hartnette, & Blanck, 2006). Medicaid discourages personal savings and encourages beneficiaries to spend down their savings and assets to maintain eligibility (Ball et al., 2006). Raising eligibility asset limits alone is likely insufficient to support these savings (Ball et al., 2006). Benefits counseling for persons with disabilities, who are reliant on social security benefits, typically has not emphasized asset development strategies, money management, wise use of credit, and the value of checking and savings accounts as critical skills for rising out of poverty (Hartnette & Morris, 2006). When there is conflict between financial incentives to save and

increased earnings, the viability of asset accumulation and economic independence for persons with disabilities is severely restricted (Mendelsohn, 2006).

### ***Declining availability of health care coverage***

- *Facilitate wide availability of reliable health coverage that provides for unique medical needs of broadly varied individuals with disabilities*

The availability of health insurance has been in decline over the last decade, most especially through loss of employer-provided coverage (Gilmer & Kronick, 2005; Kuttner, 2001). To address the rising costs of health care, employers have opted to narrow their choice of plans, decreasing their contribution, choosing plans with higher deductibles and out-of-pocket expenses, or they have eliminated coverage entirely (Kuttner, 2001). Welfare reform in the late 1990s tended to push welfare recipients off of public assistance and Medicaid coverage and into low-paying jobs without health insurance (Kuttner, 2001). Budget deficits during this period pushed states to narrow Medicaid eligibility and covered services, or to reduce the reimbursement rate for physician services producing a shortage of physicians who will accept Medicaid patients (Ku & Coughlin, 2001).

In the absence of affordable health coverage for persons with disabilities, personal assets cannot be made safe from the routinely high costs of health care, often resulting in catastrophic losses among this population (Mendelsohn, 2006). Federal efforts, such as the Medicaid Buy-In program, have attempted to prolong Medicaid coverage while a person increases their employment income, via increasing the individual's responsibility for costs overtime (Blanck, Clay, Schmeling, Morris, & Ritchie, 2002). The 'Ticket to Work' Program allows employed persons with disabilities engaged in a substantial gainful activity to maintain their Medicare coverage (Blanck, Clay et al., 2002; TWWIA, 1999). The complexity of using these programs, however, may explain why they have seen limited use (Ball et al., 2006; Capella-McDonnall, 2005; Mendelsohn, 2006). For instance, lack of experience working with persons having certain disabilities (e.g., visual impairment or blindness), higher costs associated with serving specific populations (e.g., persons with severe disabilities), and beliefs that persons with particular disabilities are more difficult to successfully place in employment limit acceptance of tickets by employment networks (Capella-McDonnall, 2005). Additionally, many states still severely limit the maximum amount an individual can earn and save while maintaining access to the Medicaid Buy-In program (Ball et al., 2006).

### ***Interaction of the Internal Revenue Code with government benefits***

- *Facilitate opportunities for persons with disabilities to freely save earnings, acquire assets, and invest for retirement — unencumbered by means-based determinations*

While various federal programs and tax provisions succeed at furthering capital formation for some Americans, the same provisions substantially prevent those results for individuals with disabilities (Mendelsohn, 2006). For instance, deferring the

payment of taxes for retirement savings promotes asset accumulation for persons with the means to save, but does not support initial savings activities (Mendelsohn, 2006). Moreover, it is estimated that more than three quarters (83%) of individuals with disabilities do not claim work-related tax deductions and credits available to them (N.O.D./Harris, 2004).

Individual development accounts (IDAs), established under the goals of welfare reform — the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 and the Assets to Independence Act of 1998 — create conditions for persons meeting “low-income and related eligibility tests [to] save money from earnings and receive additional matching funds from third-party sources.” (Mendelsohn, 2006). Entrepreneurs may use their saved IDA funds toward new business startup costs including needed technology. However, the same technology, if needed to accommodate an employee with a disability, probably will not qualify as a legitimate goal for IDA savings (Mendelsohn, 2006). IDAs may provide persons with disabilities greater control and flexibility with their income (earnings and/or benefits), such as expanded choices for education and training, employment, health care, savings, and homeownership goals.

Four major federal initiatives have targeted the employment of individuals with disabilities, namely the work opportunity tax credit, the disabled access credit (DAC), the architectural and transportation barriers removal deduction (ATBRD), and the impairment-related work expense deduction (IRWE) (Mendelsohn, 2006). The DAC and ATBRD operate to provide tax credits and deductions for ADA compliance and worksite accessibility, and the IRWE provides additional work-related deductions for employees with disabilities (Mendelsohn, 2006). However, the U.S. General Accounting Office (U.S. GAO, 2002) finds these incentives have not facilitated increased employment of persons with disabilities, arguably incentivizing the hiring process without ensuring that employers invest in and train these employees for long-term success (Mendelsohn, 2006).

Additionally, the Earned Income Tax Credit (EITC) constitutes a significant tool for asset development for people with disabilities who meet the eligibility criteria. The EITC is a refundable credit — i.e., once the amount of the refund based on earnings and family size is computed, the taxpayer receives the refund regardless of their tax liability (Mendelsohn, 2006). Many families caring for adult children with disabilities in their homes, and many single, part-time employees earning below \$11,490 annually, are eligible for the credit and yet do not claim it (Hartnette & Morris, 2006). In 2005, although twenty million U.S. families benefited by \$1800 (on average) from the EITC, \$5 billion allocated for the credit went unclaimed and over two million individuals with disabilities failed to use the credit for lack of knowledge or misinformation (Hartnette & Morris, 2006). An EITC refund has the advantages of not counting as a resource until after a grace period has elapsed, and may often be used to fund an IDA (Ball et al., 2006) and claimed retroactively for three years (Hartnette & Morris, 2006). The tax code also interacts with health insurance costs. Employer tax deductions, cafeteria plans and flexible spending plans, and employee exclusions of health care costs favor persons receiving employment-based health coverage over



those paying out-of-pocket for coverage (Mendelsohn, 2006). Research is needed to determine the impact of these arrangements on individuals with disabilities in wage work and engaged in entrepreneurial pursuits.

## **Employment**

### ***Employer attitudes***

- *Facilitate fundamental changes in employer attitudes toward hiring, training, & employing persons with disabilities*

Surveys of employers on disability issues have identified important barriers and concerns. Dixon, Kruse, and Van Horn (2003) found that 20% of employers perceive employer discrimination and prejudice, and the reluctance of employers to hire, as major barriers facing workers with disabilities. Only 7% of employers surveyed cited concerns over the costs of making workplace accommodations (Dixon et al., 2003). This is in contrast to frequently heard complaints that accommodation costs and potential ADA liability cause employers concern about hiring workers with disabilities (Blanck, Schur, Kruse, Schwochau, & Song, 2003; Hendricks, Batiste, Hirsch, Schartz, & Blanck, 2005). McLane (2005) reports anecdotally that not enough persons with disabilities are seeking jobs. Moreover, persons with disabilities may not have equal access to training and promotion opportunities to enhance their skills and economic well-being (Blanck, Kruse, Gallagher, & Hendricks, 2005). Ball and colleagues (2006) found that federal initiatives, such as the PASS program and the Ticket to Work Program, largely are underused (see also SSA, 2005). Less than one percent of issued tickets had been assigned as of April 2005 (Capella-McDonnall, 2005).

### ***Employer skill demand***

- *Understand changing employer demand for specific skills as a tool for training and matching persons with disabilities with jobs*

Presently, research does not provide a clear picture of the impacts of changing employer demand for skills (Blanck, Kruse et al., 2005). Since passage of the ADA, there has been increased employer demand for temporary workers and greater use of telecommuters, due to an increased need for flexibility facilitated by on-going developments in computer technologies (Blanck, Kruse et al., 2005). While the increase in options for telecommuting might enhance the ability of people with disabilities to get and keep jobs, concerns relate to whether layoffs, outsourcing and downsizing place workers with disabilities at greater risk for job loss than their non-disabled peers (Baldwin & Schumacher, 2002; Blanck, Kruse et al., 2005).

### ***Start up costs for employees with disabilities to achieve gainful employment***

- *Provide meaningful employment opportunities that are proportionate to the amount of work the individual is capable of performing*

Persons with disabilities do not fit into a single mold and demonstrate widely varying abilities and needs. Many individuals with severe disabilities require moderate to extensive training or retraining in specific skills, using assistive technology, or after the onset of disability (Mendelsohn, 2006). Acquiring and maintaining modified vehicles, “hardware and software needed for Braille or synthetic speech computer output,” using a sign-language interpreter, and requiring a personal assistant for daily living tasks are examples of costs to participation in society not faced by persons without disabilities (Mendelsohn, 2006). People with disabilities need to be able to accumulate assets to cover these expenses in order to achieve and maintain independence.

## Availability of Accessible Housing & Transportation

- *Facilitate a dramatic increase in the availability of accessible and affordable housing & transportation*

Significantly low home ownership rates among persons with disabilities compared to those without disabilities is, in part, a product of healthcare costs, employer attitudes, benefit program eligibility rules, and tax policy. Low home ownership rates illustrate the lack of economic and personal independence people with disabilities experience. Low home ownership rates also result from the low incomes, limited access to credit, and few assets of persons with disabilities (Mendelsohn, 2006). The shortage of accessible housing, reducing meaningful choice and raising average prices, poses further barriers to home ownership (Mendelsohn, 2006). Fortunately, if a house requires architectural modification to be accessible, the costs likely are deductible as medical expenses. This deduction is not available when modifications are for making a home accessible to family, friends, or visitors with disabilities (Mendelsohn, 2006). Moreover, for those who are unable to drive, whether due to costs or impairments, needing to be close to mass transit routes or within the service region of para-transit services further restricts housing choice (Mendelsohn, 2006). Giliberti (2005) discusses the institutional bias in the Medicaid program, favoring nursing home placement for persons with disabilities over their receiving services at home and retaining greater control over their lives. This bias keeps people with severe disabilities segregated from the community and justifies a lack of accessible infrastructure.

## (3) Efficacy of Major Perspectives and Issues

Federal law recognizes that persons with disabilities will not achieve their full civil rights until they are able to experience “equality of opportunity, full participation, independent living, and economic self-sufficiency.” (ADA, §12101(A)(8)). To this end, achieving economic security and independence is essential. At present, federal laws as implemented conflict with the achievement of these goals. Eligibility rules and asset limits on government benefit programs prevent home ownership, freedom from benefit reliance, gainful employment, and asset accumulation. Tax policies do little to support individuals without assets. Employer attitudes arising from fear of liability and the growing absence of employer-based health coverage discourage and screen out applicants with disabilities. Credible positions for review

and proposed solutions to address barriers to the ADA's mandate to achieve independence include:

- Simplification of eligibility rules and asset limits for federal programs to encourage asset building by individuals with disabilities.
- Expansion of programs for individuals who are medically needy — such as Medicaid Buy-In and 1619(b) eligibility under Medicaid — to ensure that essential medical care and services are not lost if the person chooses to work and save.
- Expansion of “money-follows-the-person” policies — e.g., Cash and Counseling programs — to support access to services that support employment, earning and saving money, and acquiring assets.
- Expansion of benefits and credit counseling to include the importance of long-term planning for asset accumulation, home ownership, wise use of credit, debt management, savings, and use of volunteer tax preparation, with IDA and PASS planning.
- Broadening the definition of earnings under IDA programs to permit persons with disabilities to engage in volunteer work, unpaid training, internships that offer “stipends or other financial support in lieu of wages,” and similar means of entry into employment (Mendelsohn, 2006).
- Enhanced support for states that implement work incentives for welfare recipients with disabilities based on similar SSI and SSDI programs, such as through waivers and grants used by Social Security Work incentives (Ball et al., 2006).
- Research on the factors that support asset development among persons with disabilities.
- Support for piloting strategies that promote savings and asset development without the loss of essential benefits (e.g., Medicaid, Social Security, and housing assistance).
- Education and training of employers in the “business case” for employing and accommodating workers with disabilities.
- Research on factors changing employer demand for skills over the coming decade.
- Research on needs of people with disabilities for expanded availability of accessible housing and transportation.
- Promotion of law and policy change to support general deductibility of home accessibility modifications, regardless of whether the home owner or another resident of the home has a disability.
- Expansion of deductibility of start-up training costs, and the transportation, communication, and personal assistance costs unique to persons with disabilities.

- Expansion of EITC use by people with disabilities, who may use the refund from the tax credit to accumulate assets without impacting eligibility for important benefits programs.

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# Demand-Side Employment: White Paper on Technology

*Prepared by:*

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The Americans with Disabilities Act (A.D.A.) has required the consideration of workplace accessibility and job accommodation for job applicants and employees with disabilities since it was enacted in 1990. Workplace accommodations include, for example, acquiring equipment to enable individual employees to perform jobs for which they are qualified, providing such support services as interpreters, and making necessary adjustments in training materials. One of the most important requirements of the ADA is that employers make reasonable accommodations for the employee with a disability. An accommodation is defined as “any change or adjustment to the job or environment that permits a qualified employee or applicant with a disability to perform the essential functions of the job” (Schall 1998, p. 193). An accommodation is considered to be reasonable when it provides equal employment access to a person with a disability such that he/she can perform essential functions of the job. The employer is obliged to provide such accommodations unless undue hardship results. “Undue hardship” is defined as actions that are “excessively costly, extensive, substantial or disruptive” (Schall 1998, p. 194).

Currently, over 20,000 assistive technologies have been developed to enable people with disabilities to be mobile, communicate, control the environment and to participate fully in work or educational settings (www.ablenet.com, 2006).

## Nature of Workplace Technologies

People with disabilities use a range of devices to complete work tasks effectively. They may extend the use of mainstream technologies to optimize their performance by using existing features to their full potential (for example, use of the autocorrect function in Word® to expand abbreviations in order to reduce the number of keystrokes required). People may purchase a general, standard technology that they may find easier to use, such as a hands-free phone, a trackball, a graphics pad in place of a standard mouse, or voice recognition software. Sometimes people make adaptations to standard technology, e.g. use a wrist support or a mount for a telephone handset to position the equipment or themselves to assist them in using standard technology more effectively.

Once general, standard technologies have been fully exploited, people often explore specialized personal or assistive technologies (AT). AT ranges from simple low-tech options to sophisticated, high-tech devices. Low-tech options are generally simple and inexpensive devices. Examples include typing splints or software (e.g. mousekeys) that improve a person’s ability to carry out a task. High-tech options may involve expensive, sophisticated, dedicated technologies such as power wheel-

chairs, an onscreen keyboard, or a device to print in Braille. These devices are usually highly specialized and are designed with a specific group in mind (e.g. people with vision loss).

A comprehensive study conducted in 1993 by the National Council on Disability in the U.S. found that people of working age reduced their dependency on their families (62%) or paid assistance (58%) as a result of using AT devices. The benefits to people using AT in the workplace were in obtaining employment (67%), working faster (92%) and earning more money (83%) (National Council of Disability, 1993). While these statistics need to be updated, it is likely that the numbers have only grown stronger since 1993.

## Benefits of Using Technology at Work

*The value of technology to the individuals who use it in the workplace is often far greater than can be represented by statistics. People who use technology in the workplace have identified a number of benefits, including the following: Technology increased employability; made job tasks easier and more efficient; reduced pain, inaccuracies, and reliance on others; increased integration into and control in the workplace; and increased the ability to sustain employment and extend their working lives. (de Jonge, Scherer, & Rogers, in press)*

Table 1 (page 105) presents six different workplace issues, or areas, in which both (a) general, public, architectural accommodations; and (b) workplace or personal/assistive technologies (AT) can make a positive contribution to the working career of an individual with a disability. Typically, we associate technology with those devices and products designed to enhance job performance and productivity; however, as Table 1 indicates, there are other areas that also require attention. Because this paper needs to be brief, it will focus on two broad issues.

### 1) Lack of knowledge of breadth of technologies and accompanying issues to consider

No accommodation or technology can be maximally beneficial with any of the issues in Table 1 if there is an unawareness of its availability, where it can be obtained, its proper set up and operations, and so on. In spite of the increasing availability of technologies for persons with disabilities, both employers and employees differ in their knowledge of available assistive technologies and the value they ascribe to them. Assistive and other technologies which enable people with disabilities to work has been an understudied area, certainly from the perspective of those who hire and manage individuals with disabilities, but also from the viewpoint of the users of these products themselves (de Jonge, Scherer, & Rogers, *in press*).

There are other kinds of knowledge that employers often feel they are lacking. The following are some examples of questions employers have regarding the provision of accommodations and devices/systems for employees:

- a) What is “reasonable accommodation” and by whom and how is this determined?
- b) Will an accommodation or technology for one person establish a barrier for another (e.g. a system relying on auditory output for a low vision person that can’t be accessed by a hard of hearing individual)? How can this be avoided, or remedied?
- c) Will the use of the accommodation or technology result in a significantly increased productivity to offset the costs?

Employees, too, lament the lack of information and training they receive in (a) how to identify the latest technologies available in the marketplace; (b) the requirements,

**Table 1: Some Examples of Appropriate Accommodations and Technologies for Employers and Employees to Consider According to a Variety of Workplace Issues**

<b>Workplace Issue</b>	<b>Examples of General, Public, Architectural Accommodations</b>	<b>Workplace or Personal/ Assistive Technologies (AT)</b>
Access to and from the workplace	Ease of transit. Includes accessible public transportation, parking, curb cuts, ramps, beeping street signals	AT includes wheelchairs, canes, adapted personal vehicles as well as adequate training power wheelchair operation, orientation & mobility, safe driving
Access within the workplace	Adequate, uncluttered space; visual and auditory signage and displays of information in public places; accessible restrooms	AT for mobility for access to places, e-mail and phone interconnectivity for access to people
Safety	Proximity to emergency personnel and equipment, compliance with safety standards	Signaling and Alerting, Emergency preparedness
Performance of job functions	Trained personnel, level of staff morale, management commitment and leadership, incentives for meeting objectives	Height- and width-adapted workstation; computer with current software; computer with adapted input, navigation and/or output devices; adapted writing aids
Communication	Accessibility to large and small group meetings, coast-to-coast telephone conference calls	Amplification devices, adapted telephone.
Career growth, continuing training and education	Provision of time, opportunities and resources on or off site (including distance education)	Portable notetaker (e.g., PDA, laptop or tablet PC), Braille or large print course materials, provision of text versions of visual or auditory information

Source: Developed by the author for this paper.

operations, customization and maintenance of the more complex, high-tech products; and (c) how to work with the employer and derive successful solutions given limited support.

In a research study of employees with hearing loss, Scherer and McKee (1993) found that a major point emphasized by this group of individuals was the importance of being aware of one's needs and then effectively communicating those needs. This often meant taking the initiative in communicating their needs to management. Examples of some of their comments are:

*If I don't bring it up, they don't know what I need. So the responsibility is mine.*

*The simple fact is that I had permitted myself to get into situations that I never should have been in, because I felt I couldn't say to somebody, "I can't do that." But that's exactly what I should have said...*

Employees, too, have questions about mastering accommodations and technologies and their ultimate effect on job performance and career advancement. Both employees and employers require up-to-date and accurate information about available technologies, and they need the ability to exercise choice. They would benefit from exposure to technologies and to have the opportunity to try them on a trial basis in realistic, natural situations. Importantly, they need to communicate with one another.

## **2) Failure to form an employer-employee team to consider the most appropriate solutions**

Research evidence now exists for the positive impact of a thorough assessment of consumer preferences and needs and the difference this can make in matching person and technology (or other form of support and accommodation), and in determining the subsequent success of that match (Scherer, Sax, Vanbiervliet, Cushman & Scherer, 2005). Ideally, the matching process is a collaborative one. For it to be successful, both employees and employers need guidance in making informed decisions about the use of accommodations and technologies. They each benefit from the formation of a partnership. The employees studied by Scherer and McKee also noted:

*"Reasonable accommodation" is a two-way street that requires knowledgeable employers.*

*I would want, first of all, a supervisor who would talk with me and listen to me, and we would explore **together** what I would need for the job. To try and solve it together and come up with something that would help.*

Assistance in forming a collaborative process for employer and employee, and joint solution-seeking, has been developed. It is called the *Matching Person and Technology Model and Assessment Process* (Scherer, 2005) and it was designed to:

- a) Indicate areas where there may be deficiencies so that the necessary steps can be taken to intervene in a situation leading to lack of productivity; and
- b) Guide employers and employees into identifying key influences on technology adoption while focusing primarily on the employee's enhanced productivity, work performance, and career advancement.

See Table 2 (page 108) for copies of the assessment checklists pertaining to workplace technologies (a version for employers and a companion version for employees).

## Summary and Recommendations

**For Employers.** Employers traditionally are concerned about the cost of hiring people with disabilities and the accompanying accommodations and supports that may be required. First and foremost, they need to access information on technology. They may also desire help in breaking down job responsibilities and tasks so that they can identify the actual needs to be addressed by technologies or other accommodations.

**For Supervisors/Managers.** Supervisors and managers who do not perceive themselves as technically skilled may not only avoid learning about new technologies, but may downplay their usefulness and not present them as viable options. If managers have had unpleasant experiences in introducing new technologies into the workplace, they may have become soured on doing it again. Supervisors and managers want to be helpful, but need support and information in how to best assist their current and future employees. Places are needed where they can see technologies in use, can try them themselves, and can receive knowledgeable answers to their questions.

**For Employees.** While many remain uninformed about the options available to them, others are not accustomed to being assertive and may hesitate to ask for the assistance to which they are entitled. And there are some employees who lack experience with cooperation and negotiation, who feel that they should not be the ones to accommodate — the burden of any needed accommodation should fall to others. Employees need to be involved in the selection of appropriate technologies and to be able to exercise choice in the selection process. Often, they need preparation for and training in technology use (as do their supervisors and co-workers); and help in initial use and applications, as well as the care and maintenance of their technologies.

**Table 2: Workplace Technology Predisposition Assessment Form**

1 of 2

**Workplace Technology Predisposition Assessment (WT PA)**

6-1  
Consumer

*An instrument for Employees, Students and Others Learning a New Technology*

Employee Name \_\_\_\_\_ Today's Date \_\_\_\_\_ Form completed by \_\_\_\_\_

Technology \_\_\_\_\_

Employees who feel anxious or uncomfortable with a new technology cannot use that technology in a manner beneficial to themselves, the company or institution. This form will assist you in identifying areas that may affect your acceptance or use of a new technology in the workplace. This form can be used together with the companion *Employer Form*.

***The Technology Itself***

	Not at All		Somewhat		Definitely
Is the technology useable with little or no discomfort stress or fatigue?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Is the time needed for practice and training reasonable?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you think mastering the technology will help you succeed?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you think mastering the technology will help you in the eyes of your peers and supervisors?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Are you able to adjust the technology to meet your preferences and requirements?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Will you have a backup technology or support if needed?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

***The Person Who Will Use the Technology***

	Not at All		Somewhat		Definitely
Are you comfortable advocating your technology needs in this workplace?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Have you had previous success with new technology in this work environment?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you have control over how quickly the technology will be acquired and installed?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you have the skills needed to use this new technology?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you feel that the technology will assist you to fit in and belong in this workplace?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Are you satisfied with your career and job?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you have what you need to do your job effectively?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Are your relationships with co-workers generally positive?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Are your relationships with your supervisor/employer generally positive?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Are you generally working at your potential?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you feel expectations held by your employer are realistic?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5



**The Milieu or Workplace Environment**

	Not at All		Somewhat		Definitely
Do you have the level of support you want from your employer?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you believe there are enough promotional opportunities for you?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you believe your employer and co-workers are open to the use of AT and other supports?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Is there an appropriate degree of teamwork at this worksite?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you feel employees efforts are respected and appreciated in your office?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Will your AT use be independent of cooperation/assistance from co-workers and others who may feel inconvenienced by it?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Has sufficient time been allotted for training you in the new technology?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you have on-going access to appropriate technical support?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Have training plans taken into consideration your learning style and needs?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you feel you will be rewarded for mastering this technology?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Does the training occur where you can become familiar with the new technology and make mistakes in a non threatening atmosphere?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

**How Well Does Everything Match?**

Employers (or trainers) and employee(s) should discuss the responses to items on this form and the companion employer form. Plans should be developed to address those issues that received a negative rating. Discrepancies between employer and employee on the various concepts should be discussed. The space below can be used to list and address the most important of these discrepancies and negative influences.

Discrepancy or Negative Influence	Plan for Addressing Discrepancy or Issue
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

**COMMENTS AND NOTES:**

*An instrument for Employers, Trainers and Office Managers*

Employee Name \_\_\_\_\_ Today's Date \_\_\_\_\_ Form completed by \_\_\_\_\_

Technology \_\_\_\_\_

Employees who feel anxious or uncomfortable with a new technology cannot use that technology in a manner beneficial to themselves, the company or institution. This form will assist you in identifying areas which may inhibit the acceptance or successful use of a new technology in the workplace. This form can be used together with the companion Employee Form.

***The Technology Itself***

Is the technology useable with little or no discomfort stress or fatigue?

Not at All		Somewhat		Definitely
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Is the time needed for practice and training a positive aspect of this technology?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Will mastering the technology help this employee to succeed?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Will mastering the technology confer status to this employee in the eyes of peers and supervisors?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Is the technology useable with little or no discomfort, stress or fatigue?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Can this employee adjust the technology to meet his/her preferences and requirements?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Is a backup technology or support available if needed?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

***The Person Who Will Use the Technology***

Are you comfortable addressing this employee's technology needs in the workplace?

Not at All		Somewhat		Definitely
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Has the employee had previous success with new technology in this work environment?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Does the employee want control over how quickly the technology will be acquired and installed?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Does the employee possess the skills needed to use this new technology?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Do you feel that the technology will assist this employee to fit in and belong in this workplace?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Are you satisfied with this employee's job performance?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Does the employee have the resources to do the job effectively?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Are the employee's relations with co-workers generally positive?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Are relationships with supervisors/employers generally positive?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Is this employee generally working to potential?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

Do you feel expectations held by your employee are realistic?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
----------------------------	----------------------------	----------------------------	----------------------------	----------------------------

**The Milieu or Workplace Environment**

	Not at All		Somewhat		Definitely
Do you have the level of support you want from your employee?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you believe there are enough promotional opportunities for this employee?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you believe this employee and co-workers are open to the use of AT and other supports?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Is there an appropriate degree of teamwork at this worksite?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Do you feel employees efforts are respected and appreciated in your office?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Will the technology use be independent of cooperation/assistance from co-workers and others who may feel inconvenienced by it?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Has sufficient time been allotted for training the employee in the new technology?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Is there on-going access to appropriate technical support?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Does the employee know how he/she best learns the use of such new technologies (e.g., instructions given individually, in groups, in writing, verbally, etc.)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Will the employee be rewarded for mastering this technology?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Does the training occur where the employee can become familiar with the new technology and make mistakes in a non-threatening atmosphere?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

**How Well Does Everything Match?**

Many (perhaps even most) of the situations where individuals encounter technology contain some element of choice. For example, we may be required to stand in line for a long time, but we can still refuse to use ATM's. However, the workplace is often the one environment where such a choice is denied us. Frequently, decisions concerning the adoption and use of such technologies are made, not by the users, but by their supervisors. Time spent considering the concepts on this form will lead to more effective use of expensive technology.

Employers (or trainers) and the employee(s) being trained should discuss their responses to items on this form. Plans should be developed to address those issues that received a negative rating from both. Any discrepancies between employer and employee on the various items should be discussed. The space below can be used to list and address the most important discrepancies and negative influences.

Discrepancy or Negative Influence	Plan for Addressing Discrepancy or Issue
_____	_____
_____	_____
_____	_____
_____	_____

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# The Salient and Subtle Components of Demand-Side Approaches to Employment Retention: Lessons for Public Policymakers

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## Introduction

For the past three years, the Rehabilitation Research and Training Center on Workplace Supports and Job Retention at Virginia Commonwealth University (VCU) has been investigating the strategies used by employees with disabilities and their employers to accommodate and manage disability for successful job retention. This large-scale qualitative study builds on 25 case studies of progressive employers conducted in 2002–03. The goal of this research strand is to explore the organizational factors and practices of companies that have successfully retained workers with disabilities in long-term employment.

Our work in this area over the past several years has led to several insights and raised some challenging questions that we believe are relevant for public policymakers who want to understand and influence demand-side factors associated with employment of people with disabilities. We share them here as tentative findings.

## Demand-Side Employment Approaches

From the perspective of a comprehensive model of workplace supports (Wehman, Bricout, & Kregel, 1999) demand-side employment approaches emphasize

the key policy considerations for working with employers, as organizations, in two major areas:

1. Hiring behavior of employer organizations, as it relates to people with disabilities as job seekers and as new employees (*Front Door Factors*); and
2. Retention behavior of employers, as it relates to protecting the health and productivity of all employees and especially to the support and accommodation of employees who develop work limitations from any cause that may jeopardize their continuation in employment with the firm, such as chronic health condition, work injury, aging and other causes (*Back Door Factors*).

In our view, current public policy efforts to influence demand-side aspects of employment of people with disabilities has been focused too exclusively on hiring behavior, at the expense of efforts to promote long-term retention of employees with disabilities. As a result, the overall level of employment among people with disabilities has remained relatively unchanged, despite many successful interventions and systems of services to assist people with disabilities to be hired into jobs (GAO, 2002; GAO, 2004). We postulate that this stagnant level of workforce participation is due in large part to the high rate of employment exits and separations by workers with disabilities. Public policy efforts to promote hiring efforts by businesses (e.g. Work Opportunity Tax Credit, Architectural/Transportation Tax Deduction, etc.) have not been matched by initiatives that adequately address the factors that cause individuals to be separated from employment or return to work after the onset of a disabling condition. Until the ratio of job placements to job exits is reduced, the net gain in employment for people with disabilities will be smaller than desired. Much greater understanding is needed about these exits, as well as the factors that contribute to their occurrence and approaches that can prevent or resolve them.

## Impact of Employment Separation

The factors that cause individuals to exit employment affect both newly hired individuals with disabilities and individuals who acquire work impairments during the course of their employment. For example, newly hired people with disabilities who are placed or hired into new employment may face significant challenges in retaining employment due to: (1) inability to sustain adequate performance or attendance with the existing level of intervention, accommodation and support; and/or (2) changes in work, work conditions, health conditions or personal circumstances (Pierce, 2003). The problem of poor job retention has been observed across multiple populations, including individuals with cognitive or psychiatric disabilities, and multiple service programs (e.g. job placement programs, supported employment, etc.). This issue has been consistently documented in the literature (e.g., Botuck, Levy, & Rimmerman, A., 1998; Drake, McHugo, Becker, Anthony, & Clarke, 1996; Kregel, Parent, & West, 1994; Lehman et al., 2002).



Employees who develop impairments or work limitations due to chronic health conditions (physical or mental), work-related injury or illness, non-occupational injury or illness, or aging processes are also at risk for early exit from employment. For these individuals, retention problems are often caused by: (1) an inability to sustain adequate work performance or attendance with the existing level of intervention, accommodation and support; and/or (2) employer policies and management practices that discourage continued work. The problem of employee job retention in the workplace after illness, injury or disability has been documented in the literature primarily as a private sector problem, but has received some focus in public policy (Mitra & Brucker, 2004; Sim, 1999). These public sector efforts have been primarily designed to reduce the number of people who leave employment for SSDI benefits. Successful employer efforts to sustain health and employment can reduce the progression of private sector employees to public sector disability benefits (McMahon et al., 2004) and should be supported in policy initiatives.

While the recent increased emphasis on the development of demand-side approaches to promoting hiring of individuals with disabilities is commendable, we believe that there is a significant unrecognized need to develop new approaches that will focus on employer concerns and facilitate the long-term employment of people with disabilities. In order to increase employer demand for labor from people with disabilities in ways that lead to increased duration of employment and reduced exits to disability benefits, public policies and interventions need to mirror and complement business efforts to reduce absenteeism and sustain productivity.

### **Business Efforts to Promote Employee Health and Productivity**

The high costs of health care, global competition and the need for highly skilled and productive workers have forced progressive employers to devote extensive resources toward sustaining the health and productivity of their work force (Nicholson et al., 2005). It is imperative that public sector demand-side approaches not work at cross-purposes with these efforts. Therefore, advocacy efforts directed at hiring people with disabilities should more realistically consider needs that may arise after hiring, such as health care management, job modifications and other accommodations that the workplace must provide in order to help people with work limitations sustain employment as health needs and/or work demands change. Placements must be made with knowledgeable and realistic preparation for long-term needs, and be designed to assist employers to be successful in managing the health and productivity of employees over time. Demand-side approaches should help employers develop durable work situations for newly hired workers with disabilities in ways that complement employer efforts to sustain their existing workers in employment in a cost-effective manner.

In order for public policy makers to assist businesses in their efforts to hire and retain workers with disabilities, research is needed that will lead to a greater understanding of the demand-side factors within the workplace that impact the continued employment of people with disabilities. Current demand-side efforts seem to

be too narrowly focused on strategies that affect initial hiring decisions, without adequate regard for the complex challenges that ensue after employment and the multifaceted methods currently used by employers to manage productivity costs of health and disability in the workplace.

## Preliminary Findings from VCU Research into Demand

### Side Approaches to Employment Retention

Our efforts to identify and analyze employer efforts to promote employment retention and productivity have resulted in a number of preliminary impressions that will form the basis of future hypotheses and increased efforts to discover ways in which public agencies can support the efforts of employers to maximize the productivity and employment retention of workers with disabilities. Four of these findings are identified and summarized below.

- 1. The provision of accommodations and return-to-work services are not one-time events, but rather long-term efforts that require a changing mixture of accommodations and supports over time.**

Recent cases reviewed by the VCU research team have involved persons with developmental disabilities, musculoskeletal work injuries, Multiple Sclerosis, adult onset mental illness, and HIV. In each case, both managers and employees report a need for ongoing adjustments and employment interventions to respond to changes in health, functional status, or job conditions in order to sustain productive employment. Recent literature has documented this phenomenon (Baldwin, Johnson, & Butler, 1996; Butler, Johnson, & Baldwin, 1995). The ongoing demands on workplace personnel to identify and respond to these needs and the level of skilled coaching and technical assistance needed to support their efforts should not be underestimated. Simply emphasizing the low cost of most (purchased) accommodations does not accurately prepare employers or service providers for the long term commitment and expertise needed to carry out the full scope of accommodation and support that can sustain productive employment. In the progressive employers we have studied, long-term employment retention results from the ongoing commitment of specialized, highly skilled staff members and a management team that values efforts to promote productivity and retention.

In a similar manner, return-to-work is not a one-time event. Just as placement efforts are too frequently viewed as time-limited efforts, return-to-work programs are often viewed as an event, rather than a process, resulting in a “(re)place and run” approach. Effective return-to-work programs require specialized expertise, sufficient resources to deliver quality supports, and a management commitment to the provision of long-term services. Progressive companies, such as those we have studied, are committed to the ongoing delivery of return-to-work supports as an individual’s employment situation, job content, and health status changes, as opposed to the one-time delivery of accommodation.

**2. Effective supports and accommodations are rarely provided through external sources, but rather from highly knowledgeable support staff immediately available in the work environment.**

In our research, demand-side models are characterized by the availability of skilled support personnel who are immediately and continuously available to address problems that arise as an individual's health situation fluctuates, job requirements change, or the individual's attendance and productivity are affected by external factors such as unstable residential or transportation supports. While businesses are more frequently recognizing the need to develop support and accommodation expertise, few employers are prepared for the vast array of support needs exhibited by individuals with various types of disabilities. More specific technical and practical knowledge is needed by service providers and workplace personnel about strategies for accommodating and supporting all types of disabilities, including the interpersonal skills needed to facilitate effective discussion about work performance and disability with employees and supervisory personnel.

The needs of employers revealed through our research has a direct impact on the types of services and supports provided by public-sector agencies. As public-sector agencies change their focus from hiring to employment retention, follow-up contacts with employees and supervisors need to be handled in way that elicits the identification of risks to job retention and provides timely and substantive interventions to address factors that can stabilize employment and productivity. When an employee's job retention is jeopardized, managers and supervisors must rely on their internal resources to respond immediately to situations that often cannot be anticipated.

For example, at the Cincinnati Children's Hospital Medical Center (one of the programs we studied), the provision of continuously available coaching and technical accommodation services from a designated and highly experienced job retention specialist, who operates on-site at the employer location in a partnership program run by the employer, has resulted in average job tenure of over five years and average current wage rate of over \$10 per hour and full benefits for employees with severe developmental disabilities.

The Cincinnati Children's Hospital program was designed to fill an identified business need for employees in certain positions to reduce turnover and improve performance (Rutkowski, Daston, Van Kuiken, & Riehle, 2006). The intervention was designed to stop multiple community agencies and changing personnel from coming into the business, and to maximize the quality and immediacy of service provided by the designated staff. This site-based, designated provider model enabled the provider to become completely knowledgeable about the business, its operation and policies, and the content of jobs; and to have personal working relationships with supervisors and their disabled employees; and to be immediately available when modifications and interventions are needed.

- 3. In many employer organizations, there exists a significant “disconnect” between their *diversity efforts* that result in hiring people with disabilities and their *health and productivity efforts* (also called absence management, disability management, disease management, and return to work) that are geared to preventing health conditions and disabilities and managing them successfully for productive work retention when they do occur.**

In the programs we have studied, there seems to be little intentional connection within employer environments between efforts to hire people with disabilities and efforts to retain employees who become disabled. This lack of connection between hiring and retention programs has implications for the employer organizations themselves, as well as for public policy.

In our view, the goals and structure of a firm’s disability management programs or diversity efforts will often determine the extent to which a company’s expertise in one area affects its practices in the other. For example, absentee management and return-to-work programs built primarily or solely to decrease costs are inconsistent with “corporate cultures” that embrace and pursue diversity goals. When the primary purpose of a firm’s disability management programs is retention versus cost control alone, it more often leads to a coordinated focus on human resource management and the creation of a retention culture.

The disconnect between hiring and disability management activities found in many businesses mirrors the lack of integration in public policy across efforts to impact the incidence and outcome of work disability and employment of people with disabilities (Bruyere, Erickson, & Horne, 2002). Our results to date lead us to hypothesize that the skills and resources needed to accomplish accommodation and support may be the thread that can tie hiring and retention efforts together, in a way that benefits the broader employer goal of preserving the health and productivity of all its work force. Future public policy efforts should be targeted toward aligning these agendas in ways that provide additional incentives for employer behavior that result in sustained employment and reducing exits from employment after disability.

- 4. The employer crisis in addressing health and productivity for business survival must be better understood by policy makers and service systems that want to focus on demand-side activity.**

In light of our finding described above, we need to consider and address the implications of hiring people with health conditions and disabilities on current employer goals to improve health and productivity, including absenteeism and presenteeism. Presenteeism (i.e. the extent to which an employee is present at the work site, but whose productivity is negatively affected by injury or illness) is a significant issue that illustrates the seriousness of the problem that impaired performance creates for employers. Any work disability that contributes to presenteeism (not to mention absenteeism) must be acknowledged, addressed and offset (Berger, 2004, Stevens & Hursh, 2005). Future investigations should determine whether there is a role for public support in enhancing private sector retention efforts.

There is some evidence to indicate that business executives may be willing to adopt more comprehensive disability management practices, if it can be demonstrated that such initiatives enhance employee productivity while controlling benefit costs (Integrated Benefits Institute, 2002). The Integrated Benefits Institute (IBI) recently found that senior financial executives are open to approving changes in the way employee benefits are delivered if these efforts are shown to provide modest productivity results. The findings of the IBI study provide significant guidance regarding what types of benefit measures are likely to promote the productivity of all employees, since the incidence of presenteeism losses are often caused by factors that are similar to those that accompany the disabilities of many people with disabilities who are attempting to initially enter the workforce.

An example of one way in which public policy might support the efforts of employers to both hire and retain workers with disabilities is found in a recommendation contained in a recent report from the National Council on Disability (NCD, 2005). As a part of its review of SSA's efforts to promote return-to-work, NCD recommended, "*Congress should direct SSA and the IRS to evaluate the possible effects of a Disabled Person Tax Credit as a means of increasing the use of disability management programs in business to prevent progression of injured and disabled workers onto the public disability rolls.*" In the view of the Council, the concept of a Disabled Worker Tax Credit (similar to the Work Opportunity Tax Credit designed to promote hiring efforts) may be a strategy that could provide a significant incentive for businesses to adopt state-of-the-art disability management practices and promote private sector efforts to return injured or ill workers to employment, as opposed to continued reliance on the public benefit programs.

## Summary

To take full advantage of demand side approaches to hiring and employee retention, public policymakers must understand that managing the health and productivity of all workers is a central business issue for every employer. Exemplary employers have continued to learn from their own experience and their internal data to address the root causes of absenteeism and lost productivity. Demand-side efforts began with return-to-work programs designed to control Worker Compensation costs. These initial return-to-work efforts led to early intervention programs, medical case management evolving into disability management, and separate treatment of work-related and non-occupational disability changing into integrated programs for absence management. Current efforts by progressive employers use absence and benefit use data to lead to prevention initiatives that focus on health and productivity, with specific studies of absenteeism losses, leading to the identification of effects of health on presenteeism and a subsequent shift from cost reduction to health investment to achieve better health and human performance and retention. Public policymakers must learn from the experiences of these forward-looking companies, and align programs and policies in a way that supports employers who invest in comprehensive retention programs, thereby reducing the burden on our public disability rolls.



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# Improving Employment of Persons with Disabilities: What Research and Promising Practices Reveal

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Improving the labor market participation rate of persons with disabilities (PwD) continues to be a persistent challenge of disability public policy. Substantial attention has been given to finding ways to do so, including the work of CESSI's EARNWorks' recently completed business cases for private and federal employers that provide substantial evidence of the value of hiring PwD. Yet, the needle remains stubbornly unmoved. Research tells part of the story. While employers may express positive global attitudes about hiring people with disabilities, Hernandez (2000) found that when asked specific questions, employers expressed numerous concerns about employing PwD. In focus groups of rehabilitation providers and employers, Fabian, Edelman and Leedy (1993) found that both groups cited negative attitudes as the most significant barriers to job placement for those with severe disabilities.

Negative employer attitudes may stem from inherent problems in conventional job development. When providing employment services for PwD, Fabian, Luecking and Tilson (1995) called for a shift in the focus to employers. They reported that this approach has several advantages including: improving workplace integration for employees with disabilities; mobilizing existing support networks in order to sustain long-term employment; sharing the economic practical difficulties of achieving ongoing support for employees with severe disabilities; and responding to the needs of employees with disabilities in a manner similar to that established for other diverse groups in the workplace.

Fabian's approach to employment for people with disabilities is more consistent with the interactional (social constructivist) model that "shifts analysis from one focusing on the disability itself to one recognizing the intersection of individual and society factors" (Jones, 1996, p. 348). According to this model, it is the resulting interaction between the individual and the environment that determines whether the functional limitation becomes a disability (Aune, 2000).

In order to meet the needs of both PwD and their potential employers, it is important for service providers to rethink the way they do business and become consultants to their clients (Luecking, 1997; Unger, 1999; Millington, Asner, Linkowski

& Derstepanian, 1996). Fabian (1995) found that rehabilitation personnel and employers had different expectations concerning placement outcomes for PwD. Rehabilitation professionals cited lack of jobs and poor economy as barriers to hiring, whereas employers cited lack of training and information about PwD.

Addressing the concerns identified by the employers as it relates to PwD is replicated in lessons from employers that have been asked what they want from general workforce development organizations. The National Collaborative on Workforce and Disability for Youth (NCWD/Youth, 2003) reviewed the literature for the Office of Disability Employment Policy (ODEP) and found that employers and employer organizations have consistently provided the same set of messages to the public sector about what they want over the past two decades. In essence, they want to work with institutions that know and respect their needs and provide individual firms with support in the hiring and retention of qualified job seekers, and they want public institutions to work with employer-led industry sector organizations and general business organizations to organize the interaction between the public and private sectors.

This sounds simple but it is not and most of the reasons center on the weakness of the strategies employed within the publicly funded workforce development system (the general and disability specific). There is a plethora of disconnects in the current way employers are engaged. But new forms of institutions are emerging that suggest a new way to do business, sometimes including providing government support to organizations representing business interests for the explicit purpose of reducing the disconnects with employers.

Over the past decade a new type of organization has emerged, building on the most promising practices of connecting job seekers and job providers, called an intermediary. In the simplest of terms, a workforce intermediary is an organization which seeks to assist the two key customers of the workforce system — job seekers and employers — through coordination and collaboration among and between a myriad of agencies and providers that impact service delivery. The intermediary must be trusted and fiscally supported by an array of organizations with resources to be able to facilitate the communication across organizations, coordinate the alignment of their resources, and ultimately to improve successful placements with employers. The intermediary role can take many forms. The American Assembly at Columbia University, with support from several major foundations, synthesized the available research and convened a broad-based panel of national experts to identify the promising practices of this new “institution.”

The Assembly identified the following common characteristics of workforce intermediaries. These organizations:

- Pursue a dual-customer approach by simultaneously serving businesses looking for qualified workers and serving job-seekers and workers interested in advancing their careers;
- Organize multiple partners and funding streams around common goals, bringing together business, labor unions, educational institutions, social

service agencies, and other providers to design and implement programs and policies to improve labor market outcomes;

- Provide or broker labor market services that go beyond recruitment and referral by understanding the special needs — and gaining the trust — of firms and industries;
- Reduce turnover and increase economic mobility for workers by assuring continued support and opportunities to upgrade skills;
- Achieve results with innovative approaches and solutions to workforce problems; and
- Improve outcomes for firms and their workers by catalyzing improvements in public systems and business employment practices.

The number of such efforts has risen from a handful in the early 1990s to several hundred today. Although they approach their tasks in different ways, successful intermediary organizations bring together key partners and functions to advance careers for all workers (recognizing the special needs of low-skilled, low-wage workers), increase business productivity, and improve regional competitiveness (The American Assembly, 2003).

NCWD/Youth built upon these principles and developed a framework to help guide the work of states and localities as they pursue the development of a solid workforce development system based upon the needs of the dual customers, including the necessary supports for the PwD population. The following table addresses generic needs for all employers and the attendant supports to job applicants, and then identifies the additional needs related to helping employers hire and retain PwD. It is important to note that what employers call for the most, in fact, center on changes that need to occur on the supplier side of the house. Thus, in order for this needs-driven approach to work, the state, sub-state regions, and individual providers of workforce development services have obligations to restructure policies, practices, and resource allocations to meet the stated needs of this customer. There are two levels addressed — systems and individual programs — which include a wide array of education and training institutions, such as community rehabilitation centers, secondary and postsecondary institutions, apprenticeship programs, and One-Stop Centers etc. and funded by a complex mix of federal, state, local and private sector sources.

Community-wide intermediaries that address systems issues (preferably supported by federal and state funding) should be viewed as the backbone of this emerging model.

<b>Employer Needs</b>	<b>Workforce Systems Obligations</b>
Awareness of industry needs	<ul style="list-style-type: none"> <li>▪ Develop profile of employers by size, type, and location;</li> <li>▪ Identify and track labor market trends, including projecting skill needs; and</li> <li>▪ Develop clearinghouse of skill requirements (standards) used by key industries.</li> </ul>
Quality skill development programs and documentation of competencies acquired	<ul style="list-style-type: none"> <li>▪ Promote the development of updated and rigorous academic and technical skills training programs that include the acquisition of work-readiness (soft skills); and</li> <li>▪ Provide documentation/credentials to employers of education or industry-recognized attainment of all referrals.</li> </ul>
Convenient access to programs	<ul style="list-style-type: none"> <li>▪ Establish ways to streamline the referrals between employers and programs across age ranges; and</li> <li>▪ Promote the use of One-Stop Career Centers.</li> </ul>
Supporting and coordinating work of program providers	<ul style="list-style-type: none"> <li>▪ Prepare and maintain directory of employer liaisons in all education and training programs in region;</li> <li>▪ Convene the employer liaisons on regular basis;</li> <li>▪ Develop broad-based, business-advised marketing strategies for advocating employer needs and views;</li> <li>▪ Present program information from all providers based on a business perspective; and</li> <li>▪ Promote the participation of workforce development professionals in activities that educate them about business and industry (e.g., externships, job shadows, etc.).</li> </ul>
Disability Specific Supports	<ul style="list-style-type: none"> <li>▪ In concert with program providers and employers, develop work-based learning tools (e.g., assessment of skills development, checklists for use by workplace supervisors, etc.);</li> <li>▪ Promote universal design of education and training programs;</li> <li>▪ Identify and make available to employers accommodations and workplace supports resources;</li> <li>▪ Develop and provide training for employees of firms responsible for working with PwD including characteristics of different types of disabilities; and</li> <li>▪ Identify any gaps in products and services, and establish common strategies among the providers and employers to fill such gaps.</li> </ul>
Continuous improvement of programs, services and supports	<ul style="list-style-type: none"> <li>▪ Evaluate the effectiveness of program supports and services for both the dual customers (e.g., customer satisfaction surveys); and</li> <li>▪ Help secure funds for evaluations.</li> </ul>



In partnership with an intermediary organization, individual workforce development programs play critical roles within the system, and there are multiple responsibilities they need to perform to be responsive to employers.

<b>Employer Needs</b>	<b>Workforce Programs Obligations</b>
Awareness of recruitment resources	<ul style="list-style-type: none"> <li>■ Connect with existing business and employer networks and job referral and placement organizations;</li> <li>■ Market services through existing community forums (e.g., newsletters, job fairs, etc.);</li> <li>■ Join business organizations;</li> <li>■ Build and maintain networks of business and employer contacts through continuous dialogue; and</li> <li>■ Make direct contact with new employers based upon the guidelines established at the “higher level” intermediary.</li> </ul>
Convenient access to applicants	<ul style="list-style-type: none"> <li>■ Minimize red tape;</li> <li>■ Coordinate employer outreach with other professionals; and</li> <li>■ Respond to employer outreach efforts.</li> </ul>
Effective applicant screening	<ul style="list-style-type: none"> <li>■ Identify competencies needed for each job and industry;</li> <li>■ Visit companies to identify needs;</li> <li>■ Understand and adhere to typical company screening processes as closely as possible;</li> <li>■ Know each applicant’s skills, interests, and aptitudes; and</li> <li>■ Match applicant to employer needs and circumstances.</li> </ul>
Applicant selection based on technical, academic, and work readiness skills	<ul style="list-style-type: none"> <li>■ Ensure applicants are enrolled in updated and rigorous skills training programs;</li> <li>■ Identify and address barriers to accessing training programs;</li> <li>■ Match applicant skills to job and task assignments;</li> <li>■ Prepare and support applicant in soft skills (e.g., appropriate work behavior, language, dress, etc.);</li> <li>■ Ensure applicants have documentation of technical, academic, and work readiness skills; and</li> <li>■ Provide supports to employers (e.g. training, work-based mentorship strategies and other tools) to support job shadowing and short-term internships.</li> </ul>

Employer Needs	Workforce Programs Obligations
Disability Specific Supports	<ul style="list-style-type: none"> <li>▪ Identify and address needed job accommodations;</li> <li>▪ Identify and address accessibility issues at workplaces;</li> <li>▪ Provide on-going post-placement follow-up with both clients;</li> <li>▪ Prepare and support PwD to understand and manage job-related disability issues (e.g., disclosure, reasonable accommodation needs, etc.); and</li> <li>▪ Conduct periodic disability and diversity awareness training for supervisors and co-workers.</li> </ul>
Return on investment of time and resources	<ul style="list-style-type: none"> <li>▪ Respect employers' time;</li> <li>▪ Keep meetings short and informative; and</li> <li>▪ Ensure that both support services and applicants' presence are benefits, not detriments, to employer operations.</li> </ul>

Obviously, turning research and promising practice into pervasive and large-scale realities is a slow process. Currently what exists is scattered, not comprehensive, and the disability “presence” is not high in the pioneer sites that do exist. The following recommendations are made for consideration to ensure a disability presence is assured.

- 1) **Employer focused:** Need a focused and disciplined employer education and training initiative, such as through business and industry associations; ODEP’s Employer Outreach efforts; refocusing the work of the Disability Business Technical Assistance Centers; and/or a new NIDRR employer-focused Research and Training Center.
- 2) **Provider focused:** Need to invest in the development and growth of intermediary organizations, such as NIDRR supporting a Rehabilitation Research & Training Center; RSA supporting a Rehabilitation Continuing Education Center supporting Community Rehabilitation Programs converting to intermediary organizations, perhaps jointly developed in concert with the Department of Labor (DOL), etc.
- 3) **Professional development focused:** Use current resources (e.g. RSA’s In Service Training Program, OSEP’s State Personnel Grants program, DOL and state training initiatives) to improve professional competencies based on identified strategies to support employers.
- 4) **Entry level worker focused:** Need to invest in developing a systematic approach to providing entry level workers accurate documentation of work readiness, e.g. Work Readiness Credential (validated across disability groupings).
- 5) **Research focused:** Need ongoing research initiatives to better understand employer needs and the impact and effectiveness of emerging strategies on meeting those needs.

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# The Employment Rate of People with Disabilities

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## 1. Introduction

Promoting employment for people with disabilities has long been an important policy objective in the United States. Examples of federal policies whose goal is to increase employment for people with disabilities include the vocational rehabilitation system, the Ticket to Work program, the Work Opportunity Tax Credit (WOTC), and the Americans with Disabilities Act (ADA). Many of these policies are relatively new, and yet analysts have noted a decline in the employment rate of people with disabilities in recent years,<sup>1</sup> and some evaluations of the ADA have indicated that rather than increasing employment for people with disabilities, the ADA may have reduced their employment. These surprising findings have led some observers to take a closer look at our employment statistics for individuals with disabilities. Perhaps, they argue, it is not that the programs and policies have failed to aid disabled individuals find employment; rather, the statistics themselves are misleading and inappropriate.

This paper considers three issues that are critical in assessing the success of employment policies for the disabled: the measurement of employment status, the measurement of disability status, and the decision on whom to include in the analyses. Measurement of employment status has not been an issue of dispute in the literature, so it is discussed first. The appropriate definition of disability status and which individuals to include in the analyses have been central issues in the debate about the impact of the ADA on employment for people with disabilities and in analyses of employment trends for people with disabilities, and they are discussed in the third section. The paper concludes with suggestions on future research and policies for measuring disability status.

## 2. Employment Status

Employment status is the least controversial of the issues considered. Definitions of employment and other labor force states generally follow the definitions used for the Current Population Survey (CPS). The CPS is a monthly survey of approximately 60,000 households that is used to develop the nation's official employment statistics. The CPS defines employment as follows:

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<sup>1</sup> See Burkhauser, Houtenville, and Wittenburg (2003).

“Persons 16 years and over in the civilian noninstitutional population who, during the reference week, (a) did any work at all (at least 1 hour) as paid employees; worked in their own business, profession, or on their own farm, or worked 15 hours or more as unpaid workers in an enterprise operated by a member of the family; and (b) all those who were not working but who had jobs or businesses from which they were temporarily absent because of vacation, illness, bad weather, childcare problems, maternity or paternity leave, labor-management dispute, job training, or other family or personal reasons, whether or not they were paid for the time off or were seeking other jobs.”<sup>2</sup>

People who are not employed are classified as either being unemployed or not in the labor force. To be considered unemployed, a person must not have worked during the reference week, been available for work except for a temporary illness, and actively searched for work during the four-week period ending in the reference week. Individuals who do not meet the criteria for being considered employed or unemployed are considered not in the labor force.

The literature does not appear to have major criticisms of the standard measure of employment, but one author has written several articles on how simply knowing the employment status of people with disabilities does not tell us the complete story. Schur (2002; 2003) uses the CPS and the Survey of Income and Program Participation (SIPP) to analyze the extent to which people with disabilities are more likely to participate in what she refers to as “nonstandard jobs”: part-time, temporary, and independent contractor positions. It has long been established that such positions provide lower wages and less generous fringe benefits than full-time positions, so accepting such positions can be deleterious to workers with disabilities if they do not voluntarily choose such work. Schur finds that over 40 percent of workers with disabilities are in some form of nonstandard work, nearly twice the rate for their non-disabled counterparts. Schur finds that these arrangements are likely to be voluntary and that the primary explanation appears to be health problems. Thus, increasing nonstandard work opportunities may be an appropriate way to draw more people with disabilities into employment. On the other hand, Schur notes that employers may be reluctant to pay for the cost of accommodations for workers who are on the job for a limited time or for limited hours, and health insurance is a higher proportion of pay for part-time workers. Thus, Schur concludes that nonstandard work is an important option to maintain for people with disabilities, but further research is needed to see if such jobs provide the benefits and support people with disabilities require, and if appropriate accommodations and benefits are provided.

One final aspect of the CPS labor force statistics also deserves note here as it may prove useful in the discussion below on the appropriate population to consider. Individuals who are neither employed nor unemployed are considered not

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<sup>2</sup> Excerpt of the definition from the glossary at the BLS Internet site <http://www.bls.gov/bls/glossary.htm>.

in the labor force, and the CPS includes questions to determine these workers' interests and actions in seeking employment. Individuals not in the labor force are asked if they would like to work. If so, they are asked questions to determine if they are *marginally attached*, which means that they want work, are able and available for work, and have looked for work during the past 12 months but not in the past four weeks; or if they are *discouraged workers*, which means that they want work, are able and available for work, and have looked for work during the past 12 months but not in the past four weeks, but who are not currently looking because they believe there are no jobs available or there are none for which they would qualify.

### **3. Defining Disability and the Appropriate Population for Analyses of the Impact of the ADA and Employment Trends for People with Disabilities**

The more intriguing debates in recent years have involved research on employment trends of people with disabilities and evaluations of the Americans with Disabilities Act (ADA). In both cases, one group of researchers purports to show that there has been a downward trend in employment for people with disabilities beginning in the 1990s, with some researchers attributing at least part of the trend to the ADA. The critics of these studies have generally argued that the findings are spurious and are due to the researchers using the wrong definition of disability and/or the wrong subset of the disabled population for the analysis.

Although the ADA was intended to increase employment opportunities for people with disabilities by prohibiting discrimination in the workplace and by requiring employers to accommodate the needs of workers with disabilities, economic theory is more ambiguous. The major argument economists have made is that if employers perceive the costs of accommodation to be high, employers will avoid hiring workers with disabilities. A more general point that has been made in studying age discrimination is that workers who lose their job are more likely to bring a discrimination suit than an applicant because the worker laid off knows the relevant pool of labor, whereas the applicant often has no idea who the employer hires or what their qualifications are. Thus, employers must weigh the costs of potentially violating the discrimination law with the costs of providing accommodations to workers with disabilities. Note that because the ADA statute uses the vague term “reasonable accommodation,” employers in the early years of the ADA faced uncertainty as to what level of accommodation would be considered reasonable. Thus, there is no reason to believe that the initial effects of the ADA would necessarily persist as case law developed.

The most often cited study of the ADA was conducted by Acemoglu and Angrist (2001). Using March CPS data, they estimated employment time trends for workers with disabilities from 1988 through 1996. Acemoglu and Angrist used

regression analysis to statistically control for other factors that might have influenced employment rates for workers with disabilities, such as receipt of income transfer payments for people with disabilities through Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI). After controlling on other relevant factors, the authors concluded that the ADA led to declines in employment for workers ages 21 to 39 with disabilities, but they did not find evidence of employment impacts for workers between the ages of 40 and 58. Acemoglu and Angrist test a variety of specifications for their empirical work, and they consistently find a decline in weeks of employment for younger workers with disabilities after the ADA became effective.

DeLeire has used the Survey of Income and Program Participation (SIPP) to estimate the employment effects of ADA in a series of articles.<sup>3</sup> Using data from 1986 through 1995, DeLeire used probit analysis to estimate how the enactment of the ADA affected the probability of employment and wage rates for men ages 18 to 64. In his simplest model, where he only controls for the presence of the ADA, DeLeire finds that the ADA reduced employment by 7.2 percentage points in the post-ADA period. When demographic characteristics, industry, and occupation are held constant, the impact declines to 4.1 percentage points; both estimates are statistically significant. He then allowed the impact of the ADA to vary by year, and he found that employment effects began in 1990 when the ADA was passed and increase in magnitude each year. DeLeire found that the effects were greater for workers in manufacturing, blue-collar, and managerial occupations, workers with physical and mental disabilities, and workers whose disabilities were not due to work-related injuries. DeLeire finds no evidence that the ADA affected the wage rates of disabled workers.

Beegle and Stock (2003) analyzed the impact of state disability discrimination laws on the employment and wage rates of people with disabilities. They note and document that prior to enactment of the ADA, most states had laws prohibiting employment discrimination against people with disabilities. Using decennial census data from 1970, 1980, and 1990, Beegle and Stock use ordinary least squares regression analysis to determine the impacts of discrimination laws on earnings, labor force participation rates, and employment for disabled individuals. In contrast to the findings of DeLeire (who considers the effects of the ADA rather than state laws), Beegle and Stock find that the discrimination laws are associated with lower relative earnings for the disabled and slightly lower labor force participation rates, but that they have no effect on employment rates.

There have been a number of papers critical of the ADA impact literature. In this section the major arguments relating to the definition of disability and the relevant population to analyze are discussed. Because the ADA was not implemented as a classical experiment with random assignment of employers and/or disabled people to treatment status, the evaluations are subject to the usual challenges to non-experimental evaluations; these issues are not covered in de-

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<sup>3</sup> See DeLeire (2000; 2001; and 2003).

tail here because the main purpose of this paper is to explore definitions of employment and disability status and not to discuss the impact of the ADA.<sup>4</sup>

An important issue raised by all the critics is the definition of people with disabilities. As Houtenville and Burkhasuer (2004) remark, “Disability is a controversial concept to define and measure.” Adler (1991) showed that federal programs use a wide range of definitions of disability, and Barnow (1996) showed how one federal program, the Job Training Partnership Act (JTPA), defined disabilities differently for eligibility and reporting purposes. Burkhauser, Houtenville, and Wittenburg (2003) note that the most common conceptualizations of disability are based on the models of Nagi (1991) and the World Health Organization (2002). They note that the population can be characterized as consisting of a set of concentric circles, with the outermost circle consisting of all working age people, the next circle including those with impairments, the third circle consisting of those with activity limitations, and the innermost circle consisting of people with longer-term activity limitations. Note, importantly, that disability is not usually defined as being synonymous with activity limitations. Rather, most analysts define disability as a combination of an impairment plus some type of activity limitation.

The critics argue that the articles by Acemoglu and Angrist (2001) and DeLeire (2001) suffer from two problems in their definitions of the population of the disabled population of interest. First, they argue that because the questions in the CPS and SIPP used to identify people with disabilities do not correspond well with the population covered by the ADA, the analyses cannot be used to determine the impact of the ADA on the covered population.<sup>5</sup> Second, the critics argue that by using a definition of disability based on ability to work, the ADA can be a victim of its own success: to the extent that employers make appropriate accommodations, some people with impairments will no longer consider themselves as having a disability, and the people who were helped by the ADA will no longer be counted as disabled.

In my view, the first argument — that evaluations should only examine the impact of the ADA on the covered population — is misguided. As all researchers on people with disabilities stress, the population with disabilities is not homogeneous. It is

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<sup>4</sup> The analyses all used ordinary least squares regression analysis for continuous dependent variables and regression analysis, logit analysis, or probit analysis for discrete dependent variables. Estimates of program impacts are often biased if relevant variables are omitted from the analysis or if one or more of the explanatory variables are measured with error. See, for example Woolridge (2002). Both Acemoglu and Angrist (2001) and DeLeire (2001) used a variety of specifications to test for the impact of the ADA, but they may not have had all relevant explanatory variables available. In addition, the program may have had an impact prior to the effective date or even prior to enactment, and the impact may have changed over time as the rules on reasonable accommodation were interpreted by the courts. Articles that note alleged econometric problems in the analyses of Acemoglu and Angrist (2001) and DeLeire (2001) include Tolin (2003), Kruse and Schur (2003), and Silverstein, Julnes, and Nolan (2005).

<sup>5</sup> See Tolin (2003), Kruse and Schur (2003), Blanck, Schur, Kruse, Schwochau, and Song (2003), and Silverstein, Julnes, and Nolan (2005). Hale (1991) implicitly also makes this point.



possible that the ADA might help one subgroup while hurting another. For example, much of the research on raising the minimum wage looks beyond the impacts of those making less than the new minimum wage—there could be ripple effects that lead to wage increases for workers earning more than the new minimum, and if there is an uncovered sector, workers in that sector may suffer a decrease in their wages while those in the covered sector gain.<sup>6</sup> If one believes that the only problem with the articles by Acemoglu and Angrist (2001) and DeLeire (2001) is that they look at the “wrong” population of people with disabilities, one should still be very concerned with the findings—they imply that some individuals with disabilities are made worse off because of the ADA. Alternatively, the findings that some groups are helped and some are hurt might be due to specification errors in the analyses. Measurement error and omitted variables can lead to biased estimates of program impact.

The second argument is more problematic. Studies that use work limitations to define the population of interest are likely to develop biased estimates to the extent that employers implement accommodations that remove workers from the ranks of the disabled. On the other hand, to the extent that researchers can use a more general activity limitation measure, individuals who have their work limitations accommodated are still likely to have other activity limitations.

Research by Kruse and Schur (2003) and Houtenville and Burkhauser (2004) show how important the definition of the disabled pool is in estimating the impact of the ADA. Kruse and Schur (2003) developed 14 disability measures based on activity limitation, receipt of disability income, and ability to work. Employment trends after ADA passed differed by disability measure: employment declined for those reporting work disabilities but improved among those reporting any or severe functional/Activities of Daily Living (ADL) limitations who do not report a work disability. Houtenville and Burkhauser (2004) found that by only considering individuals with a disability lasting for two periods instead of one, the employment decline estimated to result from the ADA by Acemoglu and Angrist (2001) no longer was found. What are we to make of these findings? Either (1) the ADA leads to different impacts for different subpopulations of people with disabilities, or (2) the results vary because of various specification errors, i.e., omitted explanatory variables or measurement error. The sensitivity of the findings with regard to the population analyzed should give pause to the notion of declaring the ADA ineffective, at least until these matters are resolved.

Similar issues arise in research on the recent employment trends for people with disabilities. A series of articles by Burkhauser and his colleagues points to a steady decline in the employment rate for people with disabilities beginning prior to enactment of the ADA.<sup>7</sup> Some observers, such as Hale (2001), argue that the data on

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<sup>6</sup> See Ehrenberg and Smith (2006).

<sup>7</sup> See, for example, Burkhauser, Houtenville, and Wittenberg (2003), Houtenville and Daly (2003), Burkhauser and Stapleton (2003), Stapleton, Burkhauser, and Houtenville (2004), and Maag and Wittenburg (2003).



the population is so poor in capturing the magnitude of the disabled population that we should refrain from asking even simple trend questions until we obtain improved data. Stapleton, Burkhauser, and Houtenville (2004) concur that there are problems with the data sources now available on the employment of people with disabilities, but they argue that the major data sources (from the CPS, the SIPP, and the National Health Insurance Survey) all produce highly correlated employment trend series so that we can identify *trends* in the overall employment level of people with disabilities. I find their reasoning convincing, but for policy purposes we sometimes need specific numbers rather than trends, and we also sometimes need to identify specific subgroups of the disabled population to estimate unmet needs and program impacts.

#### 4. Implications for Research and Policy

All the studies reviewed expressed some concern with the data available to analyze employment status for people with disabilities. The primary issue of concern is measuring disability status appropriately rather than measuring employment status. However, additional insights can possibly be gained by paying more attention to what Schur (2002 and 2003) refers to as “nonstandard jobs” (part-time, temporary, and independent contractor) as well as more detail on the situation of people not in the labor force (e.g., whether people not in the labor force want to work, whether they are available to work, if they have searched for work in the past 12 months, and reasons why they have not searched for work).

The data available appear to be adequate for identifying trends in employment patterns for people with disabilities, but they are clearly inadequate for assessing the impact of policies such as the ADA. Because the consensus definitions of disability go beyond impairments and include activity limitations, such as work limitations, research is needed to better show how various impairments limit major activities such as work and ADL, and how these trends have changed over time. Because the ADA is intended to affect the target population’s work limitations through employer accommodations, it is inappropriate to assess the impact of the ADA by analyzing only the work disabled population; the fact that studies using alternative definitions of disability in assessing the impact of the ADA reach quite different findings means that further work is needed to learn the impact of the ADA on various subpopulations. Research that explores the use of the impaired population and various alternative activity limitation definitions, including the ability to work at all, should also be pursued. In addition, studies indicate that the length and degree of impairment can affect estimates of the impact of the ADA, so further exploration of how and why this occurs would be valuable.

It is clear that to truly understand the relationship between impairments, disability, and work, we need more comprehensive coverage of these issues on major surveys. Unfortunately, space on the periodic surveys is expensive and scarce, so it would be naïve to simply call for more and better data. What may be more feasible is to periodically expand the samples of disabled individuals in some of these surveys and to ask more detailed questions on impairment, activity limitations, and disability.

Finally, we should not be surprised that researchers cannot yet agree on the impact of the ADA or even how to measure the impact. The United States has had minimum wage legislation since 1938, and economists still disagree on whether such legislation helps or hurts workers. It would be truly surprising if a consensus on the impact of the ADA could be developed in less than 20 years.

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# Age, Disability & Productivity: Employer Based Research Opportunities

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## Introduction

Age and productivity create a complex set of expectations for employers to consider. These two issues become even more complex in hiring and retaining individuals with early onset disabilities and those persons who acquire a disability during the course of his or her work life.

While our workforce and workplace are built on the notion of equal opportunity and reasonable accommodation, the very real question “can a person with an existing or emerging impairment be productive at the expected levels?” is always part of the work equation. The answer is embedded in the match between the physical, affective, cognitive, and social skills, as well as the job demands. Age becomes an influential reference point that offers unique variations to consider. The age, disability, and productivity connection highlights the demand-side employment issues. The three work-age cohorts are:

- The Career Development Period: Ages 18 to 30
- The Mid-Career Period: Ages 30 to 55
- Productive Aging Period: Ages 55 and beyond

Each of the career development periods offers a unique set of disability, work, and productivity issues for an employer to consider. The following White Paper highlights the relationship between age, disability, and productivity from an employer’s point of view. Employers make hiring and retention decisions within a corporate — cultural context that asserts various types of competing and colliding self-interests. The current context for employers includes:

**Corporate Profitability & Shareholder Value**—Producing a product or providing a service that provides a measurable return on the investment.

**Organizational Efficiency**—Producing a product or providing services with the right number of prepared employees.

**Meeting the Needs of a Changing, Diverse Work Force**—The aging of the American work force will create specific labor shortages over the next decade.

**Maintaining a Healthy Work Force & Work Place**—Employers expect the employee to maintain an optimal level of health and well-being. The

employer has the responsibility to provide a safe, non-hostile and accessible workplace.

**Managing Benefit Costs and Entitlement Programs**—Employers are looking for a range of solutions to reduce the cost of healthcare and lost time. Likewise, complying with various state and federal entitlement and civil rights programs (e.g. Family Medical Leave Act and the ADA) has become a major time and cost commitment.

**Terminology & Definitions of Disability**—The term “disability” for an employer is typically considered a medical/legal determination that a person is unable to work (temporarily or permanently) due to an injury, illness, or medical condition and is eligible for an agreed-upon set of benefits. This often creates a paradox within the corporate world, i.e. why would you hire someone who is disabled and is unable to work or has a greater risk of injury?

Within each of the age/career periods, a common set of expectations related to work and productivity are present. They are:

### **Career Development Period**

- Individual develops healthy lifestyle, becomes work ready, mobile and independent.
- The emerging worker develops appropriate work habits.
- The individual must meet entry-level productivity standards.
- A person needs to develop an age-related level of social and vocational maturity with accompanying communication skills.
- The worker needs to prepare at a postsecondary education level to develop specific vocational skills.
- The development of problem-solving and coping skills is necessary.

### **Mid-Career Period**

- The individual needs to maintain health, fitness, mobility and independence.
- The employee must maintain appropriate levels of social engagement with co-workers.
- Movement on the career ladder is based on increasing knowledge and skills beyond entry levels.
- The worker will need to develop appropriate balance between work and family.
- Maximizing financial assets becomes a critical part of this work period.
- Building long-term economic security begins.

### **Productive Aging Period**

- The employee needs to maintain health, fitness, mobility and independence.
- The individual will determine appropriate balance between work and family.



- Protecting financial assets is an important activity.
- Considering and developing a retirement plan.
- The individual becomes a mentor to younger, less experienced members of the work force.
- Maintaining long-term security & independence become key tasks.

## **Section 1:**

### **Current & Perspective Issues on Aging, Disability, and Productivity**

With the onset of a disability during the respective career phases, the following issues are presented as a pool of possible employer-based research questions:

#### ***The Career Development Period (Ages 18 to 30)***

- Does being identified as a protected class of worker help or hinder in employment opportunities?
- Can the individual get to work in a timely manner?
- Do individuals with early onset disabilities have the basic education and work skills to successfully enter the labor market?
- Are there economic disincentives discouraging entry into the work force?
- What are the age- and disability-related myths and stereotypes held by employers?
- Why are individuals with disabilities not in or entering the work force?
- What impact has the ADA had on hiring and retention practices for individuals entering the workplace for the first time?
- How have employers used the ADA for hiring and retention?
- How can we measure the real work capacity following the onset of an injury or illness?
- What employer policies and attitudes minimize or enhance the employment of individuals with disabilities?
- What advances in medical technology and evidence based medicine (EBM) enhance initial and continued work performance?
- What are the patterns of risk aversion behavior on the part of employers when considering retention or hiring of an individual with a physical or affective impairment?

#### ***The Mid Career Period (Ages 30 to 55)***

- What age- and disability-related myths and stereotypes are held by employers?
- What impact have employee benefit design and healthcare costs had on hiring and retention of individuals with disabilities?

- What economic impact have workplace accommodations had on employees with emerging impairments or work disabilities?
- What are the differences in job satisfaction for disabled and non-disabled workers?
- What is the return on investment (ROI) of supporting employees with a disability in the work place?
- What are the economic incentives and workplace liabilities for employers to hire or retain individuals with disabilities?
- What impact do physician's practices have on supporting the productivity of workers with impairments or on disability benefits?
- Do SSA disability and retirement benefits increase or reduce work options?
- What role does Medicare play in work decisions?
- Do corporate productivity expectations impact the hiring and retention of employees on disability benefits?
- What are the patterns of risk aversion behavior on the part of employers when considering retention or hiring of an individual with impairment?

#### ***Productive Aging Period (Ages 55 and beyond)***

- What is the degree of age- and disability-related myths and stereotypes?
- Do employers have a clear understanding of older workers' functional capacities?
- What impact does chronic disease have on work capacity?
- Do disease management programs have an impact on work capacity?
- What work site accommodations can be made to sustain work capacity maintaining level with job demands?
- What is the real impact that age and disability have on productivity?
- Are there job satisfaction and generational differences?
- What are the employer-based economic incentives and workplace liabilities for individuals with disabilities?
- What are the economic incentives and workplace liabilities for employers?
- What role does a physician's practice play in supporting the productivity of senior workers with emerging work impairments?
- How do SSA disability and retirement benefits support or reduce work options?
- How do corporate benefit policies related to the retention of employees on disability leave lead to termination of employees with disabilities?

## **Section 2: Determine the Relevance, Validity, Strengths, and Weaknesses of Issues and View Points**

The various issues and questions presented can be organized across a finite number of themes. It is within these themes that the relevance, validity, strengths, and weaknesses can be measured. The key themes connecting the issues of age, productivity, and disability are:

- Employer Attitudes and Stereotypes;
- Impact of Federal and State Legislation/Entitlement Programs on Employer Practices;
- Economic and Benefit Plan Incentives and Disincentives for Maintaining Productivity;
- Vocational Maturity and Work Readiness of the Individual;
- Work Site Accommodations and Assisted Technology; and
- Health and Functional Capacity of the Individual.

## **Section 3: Research Issues and Opportunities**

The following age, disability, and productivity matrix (page 148) offers an overview of possible research issues and opportunities that may produce practical and usable outcomes to promote the employment of individuals who are managing the impact of an injury, illness, or chronic disease.

	<b>Career Stages</b>		
	<b>Career Development Ages 18 – 30</b>	<b>Middle Career Ages 30 – 55</b>	<b>Productive Aging Ages 55 +</b>
<b>Employer Attitudes — Stereotypes</b>	<ul style="list-style-type: none"> <li>Define Belief System of Employers</li> </ul>	<ul style="list-style-type: none"> <li>Measure Disposable Worker Syndrome</li> </ul>	<ul style="list-style-type: none"> <li>Explore levels of Ageism</li> </ul>
<b>Legislation/ Entitlement Programs</b>	<ul style="list-style-type: none"> <li>Determine impact of ADA on new workers</li> </ul>	<ul style="list-style-type: none"> <li>What impact does FML have on employer hiring/ retention programs</li> </ul>	<ul style="list-style-type: none"> <li>What impact does SSA Retirement play on continuation of work programs</li> </ul>
<b>Economic Incentives and Disincentives</b>	<ul style="list-style-type: none"> <li>Determine Medicare impact on work options</li> </ul>	<ul style="list-style-type: none"> <li>What benefit programs support RTW or new hires</li> </ul>	<ul style="list-style-type: none"> <li>How do private healthcare benefits and Medicare work to support continued productivity</li> </ul>
<b>Vocational Maturity and Readiness</b>	<ul style="list-style-type: none"> <li>Measure vocational maturity in target groups</li> </ul>	<ul style="list-style-type: none"> <li>What impact does job satisfaction have on work status</li> </ul>	<ul style="list-style-type: none"> <li>What are the factors in a premature separation from work due to an injury or illness</li> </ul>
<b>Work Site Accommodations</b>	<ul style="list-style-type: none"> <li>Define ROI for work site accommodations</li> </ul>	<ul style="list-style-type: none"> <li>Determine best menu of accommodations for Musculoskeletal Disorders (MSD)</li> </ul>	<ul style="list-style-type: none"> <li>Test-assisted technology applications at work and for home ind.</li> </ul>
<b>Health and Functional Capacity</b>	<ul style="list-style-type: none"> <li>Demonstrate methods to improve FC</li> </ul>	<ul style="list-style-type: none"> <li>Create chronic disease screening model</li> </ul>	<ul style="list-style-type: none"> <li>Test strength, flexibility and endurance programs to enhance work options</li> </ul>

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