

*DRAFT*

**The Decline in Employment of People with Disabilities: A Policy Puzzle**

David C. Stapleton and Richard V. Burkhauser  
*Editors*

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## **Chapter 1 Introduction**

Richard V. Burkhauser  
Department of Policy Analysis and Management  
Cornell University

David C. Stapleton  
Cornell Center for Policy Research  
Cornell University

The authors wish to thank Ludmila Rovba for her research assistance in updating the Burkhauser, Daly, and Houtenville (2001) tables used in this chapter as well as Andrew Houtenville for his help in assuring the accuracy of these values. We also thank the National Institute of Disability and Rehabilitation Research (NIDRR) and the Social Security Administration (SSA) for supporting our work on this chapter. We would also like to thank NIDRR's Ruth Brannon and our colleague Susanne Bruyere for their encouragement and guidance. The opinions we express in this paper are our own, and do not represent official positions of NIDRR, SSA, or Cornell University.

A major debate has begun over reports of an unprecedented decline in the employment rate of working age people with disabilities over the 1990s business cycle (1989-2000) by those using currently available data sources to track the employment and economic well being of the United States population. The debate is occurring at two overlapping levels. The first level of debate is over the quality of the data, with some calling on the Federal government to end all its financial support for the dissemination of employment estimates for people with disabilities using currently available data (National Council on Disability 2002). Others argue that while the current data are usable within certain limits, the major findings on employment using these data are quite sensitive to the definitions used to capture the “relevant” population with disabilities, and have been used in a way that understates the employment success of public policies like the Americans with Disabilities Act of 1990 (ADA). The second level of debate is over the specific causes of the decline found in the data. Researchers have made conflicting judgments over the relative importance of health and the social environment, especially public policies, in explaining this decline.

In the background of the academic debate over these issues are the concerns of policy makers, disability advocates and people with disabilities over the success of their efforts to better integrate working age people with disabilities into the workforce, increase their employment, and reduce their dependence on disability based income support programs. Most especially, there is concern that the centerpiece of the political movement to increase labor market access of people with disabilities, the ADA, will be unfairly judged a failure based on partial and inappropriate measures of its success.

In October 2001, Cornell University's Rehabilitation Research and Training Center for Economic Research on Employment Policy for Persons with Disabilities, funded by the U.S. Department of Education's National Institute for Disability and Rehabilitation Research (NIDRR), conducted a two-day conference in Washington, DC, to address the issues surrounding the decline in the employment rate for people with disabilities. The conference, for the first time, brought together the leading researchers on these issues and members of the policy making and disability advocacy communities, including working age people with disabilities.

This book grew out of that conference, with support from both NIDRR and the Social Security Administration. The book is not, however, a traditional "academic conference" volume. Instead, we worked with the authors to make the final version of their work responsive both to the criticisms of their initial presentation by their fellow researchers and the more general audience at the conference. Our objective was to provide information that was accessible and credible to researchers and to the broader policy making, advocacy, and grassroots disability communities. The result is a cohesive book that presents the latest research on the decline in the employment of working age people with disabilities in a way that is tightly focused on documenting this decline, evaluating the conflicting evidence of its causes, and spelling out the implications for public policy.

### **The Employment and Economic Well Being of Working Age People with Disabilities**

Table 1 uses data from the Current Population Survey (CPS), to revise Burkhauser, Daly, and Houtenville (2001). It shows that median household income of (working-age) men without disabilities increased by 9.4 percent and median household income of women without disabilities increased by 12.6 percent between 1989, the peak year of the 1980s business cycle, and 2000, the peak year of the 1990s business cycle. In contrast, the median household income of men with

disabilities fell by 2.9 percent and the median household income of women increased by 5.6 percent over the period.

**Table 1. Mean and Median Household-Size-Adjusted Real Income of Civilians Aged 25-61, by Gender and Disability Status<sup>a</sup>**

Population <sup>b</sup>	Year			Percentage Change <sup>c</sup>		
	1989	1992	2000	1989-1992	1992-2000	1989-2000
<i>Mean household income</i>						
Men without disabilities	35,863	33,968	39,401	-5.4	14.8	9.4
Men with disabilities	21,178	19,774	20,572	-6.9	4.0	-2.9
Women without disabilities	32,430	31,247	36,774	-3.7	16.2	12.6
Women with disabilities	19,629	18,401	20,762	-6.5	12.1	5.6
<i>Median household income</i>						
Men without disabilities	31,899	30,253	34,146	-5.3	12.1	6.8
Men with disabilities	16,905	15,741	16,063	-7.1	2.0	-5.1
Women without disabilities	28,921	27,933	32,042	-3.5	13.7	10.2
Women with disabilities	14,939	13,589	15,633	-9.5	14.0	4.5

Source: Revised and updated calculations of Burkhauser, Daly and Houtenville (2001) using March Current Population Survey, 1990-2001.

Notes:

<sup>a</sup> Those less than age 25 or more than age 61 or in the Armed Forces are excluded. Persons are considered to have a disability if they report having a health problem or disability that prevents them from working or limits the kind or amount of work they can do. All dollar amounts are in 2000 dollars. Because top coding rules have varied over the history of the CPS, we consistently top code all income at the lowest common income percentile in all years across the CPS data from 1976-2001. Burkhauser, Daly and Houtenville (2001) handled this problem by excluding the top and bottom 1 percent of the distribution.

<sup>b</sup> Disability status is for the year following the income year. In 1994, there were several changes in the CPS. It moved fully to computer-assisted survey interviews. Sample weights based on the 1980 Census were replaced with sample weights based on the 1990 Census. The Monthly Basic Survey was revised, and three new disability questions were added. It is possible that these changes affected the measurement of the population with disabilities either through changes in the sample weights or in the way respondents answered disability questions.

<sup>c</sup> When calculating percentage change, we use the average of the two years as the base.

The proximate reason for this dramatic difference in the fortunes of the working-age population with and without disabilities was the even more dramatic divergence in their employment rates over the period. The employment rate of men without disabilities was “pro-

cyclical” (i.e., followed the business cycle), declining during the recession years of the early 1990s, but then growing over the later recovery years. In contrast, the employment rate of men with disabilities fell both over the recession years and even more so over the recovery years of the 1990s. The long-term secular growth in the employment rate of women muted some of the cyclical effects on their employment rate. The employment rate of women without disabilities grew during both the recession and recovery years but grew much more during the growth years. Women without disabilities experienced declines in their employment rate over the entire period, although the decline was smaller over the growth years. As Burkhauser, Daly, Houtenville and Nargis (2002) show, the failure of the employment rates of both men and women with disabilities to increase during the growth years of the 1990s business cycle (after 1992) was a complete reversal of the pro-cyclical behavior of their employment rates over the 1980s business cycle. (See Table 2.)

**Table 2. Employment Rates of Civilians Aged 25-61 by Gender and Disability Status<sup>a</sup>**

Population <sup>b</sup>	Year			Percentage Change <sup>c</sup>		
	1989	1992	2000	1989-1992	1992-2000	1989-2000
Men without disabilities	96.1	94.8	95.2	-1.4	0.4	-1.0
Men with disabilities	44.0	41.6	33.1	-5.5	-22.9	-28.4
Women without disabilities	77.1	77.6	81.3	0.7	4.6	5.3
Women with disabilities	37.5	34.3	32.6	-8.9	-4.9	-13.8

Source: Revised and updated calculations of Burkhauser, Daly and Houtenville (2001) using March Current Population Survey, 1990-2001.

Notes:

<sup>a</sup> Those less than 25 or more than age 61 or in the Armed Force are excluded. Persons are considered to have a disability if they report having a health problem or disability that prevents them from working or limits the kind or amount of work they can do.

<sup>b</sup> Disability status is for the year following the income year. In 1994, there were several changes in the CPS. It moved fully to computer-assisted survey interviews. Sample weights based on the 1980 Census were replaced with sample weights based on the 1990 Census. The Monthly Basic Survey was revised, and three new disability questions were added. It is possible that these changes affected the measurement of the population with disabilities either through changes in the sample weights or in the way respondents answered disability question

<sup>c</sup> When calculating percentage change, we use the average of the two years as the base.



The reason this unprecedented decline in employment did not have an even greater effect on the household income of those with disabilities over the period was that mean income from Social Security Disability Insurance and Supplement Security Income rose by 33.8 percent for men with disabilities, and rose by 48.6 percent for women with disabilities from 1989 to 2000. Those increases nearly offset the 34.6 percent decline in mean labor earnings for men with disabilities and added substantially to the gain of 13.8 percent in the labor earnings of women with disabilities, over the period. (See Table 3.)

Over the 1990s business cycle (1989-2000), the employment rate of the population with disabilities was below its 1989 business cycle peak for both men and women with disabilities, and their income was more dependent on Federal government programs. Given the robust economic expansion of the 1990s and the promise of greater independence that is embodied in the ADA, this decline in both employment and its importance for household income might reasonably be considered a social disaster for working age population with disabilities. Hence, it is not surprising that this decline in measured employment has generated a major debate, represented in this book, over the quality of the numbers produced by current data sets and, if credible, the causes for this unprecedented decline.

### **Is the Decline in Employment a Measurement Aberration?**

While at face value the decline in the employment rates of men and women with disabilities generated by data from the CPS is unprecedented, there are those who would argue that either a) it is not possible to measure trends in the employment rate of people with disabilities in a meaningful way with these data and/or b) it is the wrong measure for assessing progress toward better employment outcomes for people with disabilities. In short, they would

question whether this decline in employment of the working age population with disabilities in the CPS is a real phenomenon or simply an artifact of faulty or misapplied data.

**Table 3. Mean Real Income from Own Labor Earnings and Own Social Security Disability Insurance (DI) and Supplemental Security Income (SSI) for Civilians Aged 25-61, by Gender and Disability Status<sup>a</sup>**

Income Source/Population <sup>b</sup>	Year			Percentage Change <sup>c</sup>		
	1989	1992	2000	1989-1992	1992-2000	1989-2000
<b><i>Own Labor earnings</i></b>						
Men without disabilities	33,820	31,434	37,046	-7.3	16.4	9.1
Men with disabilities	8,058	6,793	5,680	-17.0	-17.8	-34.6
Women without disabilities	16,065	16,632	20,240	3.5	19.6	23.0
Women with disabilities	4,250	4,092	4,880	-3.8	17.6	13.8
<b><i>Own DI/SSI</i></b>						
Men without disabilities	50	71	76	33.5	7.0	40.3
Men with disabilities	3,013	3,356	4,237	10.8	23.2	33.8
Women without disabilities	164	150	149	-8.7	-1.1	-9.8
Women with disabilities	2,004	2,380	3,292	17.2	32.1	48.6

Source: Revised and updated calculations of Burkhauser, Daly and Houtenville (2001) using March Current Population Survey, 1990-2001.

Notes:

<sup>a</sup> Those less than age 25 or more than age 61 or in the Armed Forces are excluded. Persons are considered to have a disability if they report having a health problem or disability that prevents them from working or limits the kind or amount of work they can do. All dollar amounts are in 2000 dollars. Because top coding rules have varied over the history of the CPS, we consistently top code all income at the lowest common income percentile in all years across the CPS data from 1976-2001. Burkhauser, Daly and Houtenville (2001) handled this problem by excluding the top and bottom 1 percent of the distribution.

<sup>b</sup> Disability status is for the year following the income year. In 1994, there were several changes in the CPS. It moved fully to computer-assisted survey interviews. Sample weights based on the 1980 Census were replaced with sample weights based on the 1990 Census. The Monthly Basic Survey was revised, and three new disability questions were added. It is possible that these changes affected the measurement of the population with disabilities either through changes in the sample weights or in the way respondents answered disability questions.

<sup>c</sup> When calculating percentage change, we use the average of the two years as the base.

The root causes of the disagreement are the conceptual and practical difficulties in measuring disability in surveys. The seemingly esoteric debate about the definition of the

population of people with disabilities has made it to the front pages of the nation's newspapers as courts grapple with the issue in response to ADA litigation. (The ADA defines disability as a "physical or mental impairment that substantially limits one or more of the major life activities.")

The old medical model, which posits that a disability is a deficiency within the individual, has been replaced by the widely held view that a disability is caused by an interaction between the individual's functional limitation and the social environment. When you ask a person if he or she has a "disability," or, more specifically, a "work disability," the answer might depend on the person's current employment status. A person who works despite a significant physical or mental impairment might say no, but the identical person might say yes if he or she is not employed. Burkhauser et al. (2002) show that work limitation-based measures of the population with disabilities from the CPS and the National Health Interview Survey (NHIS) significantly underestimate the number of persons in the broader population with impairments and over represent those people with impairments who are not employed. Hence, work limitation-based measures of disabilities are potentially sensitive to changes in the social environment in which the questions are asked, like the passage of the ADA, easing of the eligibility standards for SSDI or SSI, availability of private health insurance, etc. – any factor that could influence employment prospects and, hence, the likelihood that a person with a impairment will report a work limitation in response to a survey question.

Concerns of this type have led some researchers to argue that the CPS and its work limitation-based measure of the population with disabilities cannot be used to provide credible information to policy makers with respect to the employment of working age people with disabilities (Hale 2001). Along these lines, the National Council on Disability, in their report of July 26, 2002, recommend that "The Federal Government should not encourage or support the

dissemination of employment data until a methodology for assessing employment rates among people with disabilities that is acceptable to leading researchers and demographers in the field and credible to persons with disabilities can be developed.” (National Council on Disability 2002, p.20.)

However, Burkhauser et al. (2002) show that the employment trends for working age men and women found in the CPS and NHIS surveys based on a work limitation definition of disability yield trends in employment rates between 1983 and 1996 that are not significantly different from the employment trends for the broader population of people with an impairment. This is an important finding because a population based on having an impairment is presumably less sensitive to changes in the social environment. The authors argue that work limitation based questions from the CPS as well as from other continuous and representative samples of the United States population can be used to evaluate trends in the employment of working age people with disabilities and their causes.

While all the authors in this book recognize the limitations of currently available data in defining the working age population with disabilities, and in evaluating the employment of this population, they all believe it is valid to use these current data for evidence based policy analysis. Nonetheless, they have conflicting views on the most appropriate current data and the most appropriate sub-samples of the data to use in that analysis.

### **Comparing Trends in the Employment of People with Disabilities Across Data Sets and Disability Population Definitions**

The research on trends in the employment rate of people with disabilities is restricted by the questions asked in three large nationally representative surveys conducted in a consistent fashion over the 1980s and 1990s. Much of the research presented in this book is based on data

from these data sets: the Current Population Survey (CPS), the National Health Interview Survey (NHIS) and the Survey of Income and Program Participation (SIPP).

*Richard Burkhauser, Andrew Houtenville and David Wittenburg (Chapter 2)* describe the strengths and limitations of each of these surveys and how the disability measures that can be constructed from their questions relate to medical and socio-political definitions of disability. They compare trends in employment rates for people with disabilities, based on the various surveys and the disability measures available in them. They find that, while the level of the employment rate is sensitive to the survey and measure used, trends in the employment rate are much less sensitive. Employment rate trends based on functional limitation measures of the population with disabilities are very similar to those for more problematic work limitation measures of this population, indicating that the latter are capturing a stable population over a long period. Importantly, they point out that what seem to be differences in research findings based on differences in the original data, in fact, come from difference in the choice of disability populations that were drawn from these data sets. Hence they argue that it is not differences in the quality of current data, but in the judgments of the researchers with respect to how that data are used, that explains the differences reflected in the various chapters of this book. (Compare especially how Kaye, Chapter 5, Kruse and Schur, Chapter 7B, and Blanck, Schwochau and Song, Chapter 7C define their relevant populations with disabilities to the definitions of DeLeire, Chapter 7A, and Goodman and Waidmann, Chapter 8.)

### **Is the Overall Employment Rate of People with Disabilities the Appropriate Policy Success Measure?**

Even if the employment rate of the overall population with disabilities is measured consistently over time, and employment trends across differing definitions of this population are

similar, is the overall employment rate of this population the appropriate measure to assess the performance of current social policies? The population represented in the employment rate (i.e., the denominator of the rate) includes people who report being unable to work at all.. Although theoretically all people with disabilities are able to work with appropriate accommodations, most would acknowledge that there is a group for which work is not a meaningful alternative.

Including this group in the analysis may be misleading.

All the authors who have contributed to this book agree that:

- The overall employment rate of working age people with disabilities, as measured in various ways across several surveys, declined over the 1990s, or at least did not increase, while the overall employment rate of working age people without disabilities grew over the period.
- The proportion of working age people with disabilities who say they are unable to work at all, or are unavailable for work, also measured in various ways, increased during the 1990s.
- Among those working age people with disabilities who say they are available or able to work, an increasing proportion is employed.

The authors are not, however, in agreement on whether or not those who say they are unable to work at all should be included in the measurement of employment rates for purposes of evaluating the general social welfare of working age people with disabilities, or the success of public policy in integrating them into the labor force. Nor do they agree on the reasons for the changes in their employment rates. The bulk of this book is devoted to providing a detailed examination of the various possible explanations for the overall employment rate decline among working age people with disabilities found in the data and its importance for policy analysis.

While some of the chapters argue that it is the result of the unintended consequence of public policy and programs, others argue the decline is due to factors that mask the actual success of these same policies and programs.

## **Alternative Explanations of the Overall Decline in Employment Rates**

### **Demographic Factors and Education**

One possible explanation for the decline in the overall employment rate of working age people with disabilities is a shift in the demographic composition of this population. If, for example, over time there are proportionally more women in this population, who traditionally have less attachment to the labor force, or older workers, who are less likely to undertake retraining after the onset of a disability, or less educated workers, who are less productive in the labor force, then the overall employment rate for the population with disabilities would show a decline that had little to do with changes in public policy. Alternatively, it may be that only one subpopulation within the overall population with disabilities is experiencing a dramatic drop in employment and masking the success of public policies on the majority of the population with disabilities.

*Andrew Houtenville and Mary Daly (Chapter 3)*, using data from the CPS over the 1980s and 1990s business cycles, find no credible evidence to indicate that composition changes of this sort or the dramatic decline in employment of a specific subpopulation “artificially” caused the decline in the 1990s.

They use a formal analytical method to separate, or “decompose,” the employment rate decline into a component due to changes in the composition of the population and a component due to changes in the employment rate within demographic and educational subgroups, over the two business cycles. They find that a downward trend in employment is apparent over the 1990s

in each of the gender, age, race and education subgroups of people with disabilities they investigate, with no one subgroup explaining a substantial part of the decline. In contrast, they find compositional changes in these subgroups had a much more important influence on the increases in the employment of working age people with disabilities over the 1980s business cycle.

Houtenville and Daly also conduct a decomposition by health status. Data availability limits the analysis to the years from 1995 to 2000. Over this short period there is not significant change in the distribution of health status of people with disabilities, and the employment rate declines as much, or more, for those who report being in relatively good health as for others.

### **Changing Job Characteristics**

While changes in the composition of demographic and education groups within the working age population with disabilities cannot explain the dramatic decline in the employment rates of working age people with disabilities in the 1990s, it is possible that changes in the job market they had to compete in might offer such an explanation. *David Stapleton, Nanette Goodman, and Andrew Houtenville (Chapter 4)* consider the possibility that changes in the nature of work (substantive complexity, relational or interactive nature, autonomy/control, task scope, physical demands, and terms of employment) have, on average, made it more difficult for people with work limitations to compete with others.

Using data from the CPS over the 1980s and 1990s they show that, while changes in the composition of jobs might have contributed to a long-term decline in the employment of people with work limitations, such changes are too small to explain the dramatic decline in their employment found in these data. Further, similar changes were occurring in the 1980s, when the employment rate for people with work limitations was not declining. While this exercise



provides some evidence that changes in the composition of jobs cannot explain much of the decline, it is possible that changes within these jobs could. That is, the jobs themselves might have changed in ways that make it more difficult for people with work limitations to compete. The authors point out, however, that the literature on this subject does not provide any indication of a sharp departure from long-term trends in the nature of work that could explain the decline during the 1990s in the employment rate for people with work limitations.

It is also possible that declines in job security, which result in more frequent job changes and reduced attachment to a specific employer, might have contributed to the employment rate decline, because, on average, it is more difficult for workers with limitations to change jobs than for others. The literature provides some evidence that job security has declined, but the authors conclude that the decline has been very gradual, and began well before the decline in the employment rate for people with disabilities.

### **Health Care Costs**

Many working age people with disabilities have chronic conditions that require substantial medical care, and growth in the cost of this care, coupled with how it is financed, might explain some of the decline in their employment rate. Most private medical insurance is purchased via employers. People with disabilities may obtain public insurance through DI (Medicare) or SSI (Medicaid). While access to Medicaid for those not receiving SSI has been expanding in recent years, it is still quite limited. Rising health care costs have made it more expensive for employers to employ people with disabilities. Most have passed on a significant share of the higher costs for health insurance to employees and, to reduce premium growth, have elected to purchase plans that have an increasing number of utilization restrictions. Thus, increases in the relative costs of treating high cost conditions over time may have both made

employers more reluctant to hire people with these conditions and may have reduced the attractiveness of employment for people with such conditions as a way to obtain health insurance relative to participation in DI or SSI.

*Steven Hill, Gina Livermore, and Andrew Houtenville (Chapter 5)* use data from the 1987 National Medical Expenditure Survey (NMES) and the 1996 and 1997 Medical Expenditure Panel Survey (MEPS) to test this possible explanation for the decline in the employment of working age people with disabilities between the 1980s and the 1990s. They divide individuals in their samples in 1987 and in 1996/1997 by the cost of treating their chronic health conditions—high cost, medium cost, low cost, very low cost and no chronic conditions—and show that the average expenditures on high, medium, and low cost chronic conditions significantly increased over the period, as did the share of their samples that had high and medium cost chronic conditions. Furthermore, they show that the employment rate of those with high cost chronic conditions fell relative to the rate for those without such conditions.

To further test the importance of increases in health care costs on employment, they repeat this exercise using samples of people with work limitations in the NHIS. They compare the employment rates of those with and without high cost chronic conditions in 1984-1987 to those same groups in 1993-1996, using the condition groups developed with the MEPS and NMES data. They hypothesize that, if growth in health care costs contributed to the employment rate decline, the employment rate for those people with work limitations and high cost conditions should fall relative to the rate for those with work limitations but not high cost condition. The finding for women is consistent with this hypothesis, but not for men. If growth in health care costs explains the result for women, it is difficult to explain the finding for men.

Finally, as done in some of the earlier chapters, they conduct a decomposition exercise, to assess the extent to which the increase in the prevalence of high cost chronic conditions among people with work limitations and the decline in their employment rate might account for the decline in the employment rate for all people with work limitations. They find a negative effect for both men and women, but the size is small relative to changes in employment rates over the period they study.

### **Increasing Severity of Disabilities**

Rather than focusing on the cost of health care service for chronic conditions or changes in the social environment, one could argue that it is simply a rise in the share of very severe work limiting impairments and chronic conditions within the overall population that is responsible for the decline in the overall employment rate of working age people with disabilities. Once this shift in underlying medically based factors is taken into consideration, it might be that the employment of those with disabilities who are “able to work at all” greatly improved in the 1990s.

*Steven Kaye (Chapter 6)* considers this possibility. Kaye first uses NHIS and CPS data to show that the overall employment rates of working age people with disabilities did not rise in the 1990s, focusing on those who report a limitation in any major activity, including work. Similar to Burkhauser, Houtenville, and Wittenberg (Chapter 2), and Kruse and Schur (Chapter 7C), however, Kaye then shows that the employment rate of the subset of the population with activity limitations who reported being “able to work at all” rose in the 1990s. While the exact employment rates reported in these three chapters vary because of differences in the years used in their analysis and in their definition of the population with disabilities, and its “able to work at all” sub-population, the following statement is consistent across the three studies -- the

significant, although declining, share of the overall population with disabilities that describe themselves as “able to work at all” experienced *increases* in their employment rates over the 1990s, at the same time that the employment rate of the overall population with disabilities, *declined*. Where Kaye departs from Burkhauser, Houtenville and Wittenburg (Chapter 2), DeLeire (Chapter 7A), and Goodman and Waidmann (Chapter 8) is in his explanation for the dramatic decline in the share of the working age population with disabilities that self-report being able to work at all.

While Kaye does not perform a formal composition exercise, it is easiest to think of the arguments in his chapter as similar in design to those in the previous three chapters. Using NHIS data, Kaye finds that the prevalence of impairments and chronic conditions increased over the period. Like Burkhauser, Houtenville and Wittenburg (Chapter 2), he argues that a population definition based on impairment or chronic health condition questions is less subject to changes in the social environment and, hence, provides a better continuous measure of the “population with disabilities” than do other population definitions (e.g. work limitation based definitions). The two chapters also agree that the vast majority of the working age population with impairments and chronic conditions work, and do not report having a work limitation.

Kaye then argues that it is the rise and change in the mix of these underlying impairments and chronic conditions that have caused the decline in the share of those with activity limitations who say they are able to work at all. Kaye examines data on major chronic conditions, and concludes that for those reporting each of the conditions he considers, the proportion reporting an activity limitation (work limitation or limitation in other major life activity) and the proportion reporting they are unable to work at all have both stayed constant. Thus, for each condition, there has been no change in the proportion of those with activity limitations who

report they are able to work at all. This is a critical finding because, Kaye argues, this would not be the case if the social environment were causing changes in the ability to work of the population with chronic conditions over time. If this conclusion is correct, it is the increase in the share of chronic conditions that have low “able to work at all” rates among those with activity limitations that is driving the overall decline in the share of the population with these activity limitations who are able to work at all and not changes in the social environment.

Kaye goes on to consider the possible causes of the rapid growth in the prevalence of conditions with low able to work at all rates -- musculoskeletal, respiratory, nervous system and mental health conditions. He argues that the major increases in these chronic conditions are due to the obesity epidemic and stress related disorders caused by the 1991 recession.

Most importantly from a policy perspective, Kaye argues that “If we want to measure improvements in the level of *employment opportunity* for people with disabilities, as the ADA’s goal statement suggests, we should use a measure that includes those people who are likely to take advantage of such opportunities and leaves out everyone else.” (page #) When he and others leave out those who report they are unable to work at all, on the grounds that they cannot take advantage of employment opportunities, the employment rate of those remaining – those people with disabilities who report they can work at all -- is shown to rise since the passage of the ADA.

### **The Americans with Disabilities Act**

We would expect that the declining unemployment rates over the growth years of the 1990s business cycle would have caused employers to look beyond their traditional work force to the millions of working age people with disabilities. Yet, as we have seen, the overall employment rates of those with disabilities declined over this period. Some argue that the ADA impeded this process. The ADA, passed in 1990 and effective in 1992, was intended, among

other things, to increase the employment of people with disabilities by requiring firms to make reasonable accommodations for “qualified” employees and by banning discrimination against people with disabilities in hiring, firing and pay. Proponents claimed the ADA would induce companies to make adjustments necessary to employ workers with disabilities, and would reduce unlawful discrimination. Critics argued that the “unintended consequence” of the increased costs of accommodation and the increased threat of litigation resulting from this Act would be a decline in the employment of the very people the ADA was meant to protect.

*Tom DeLeire (Chapter 7A)* makes the case that the ADA is responsible for the decline in the employment of working age people with disabilities. DeLeire first lays out the conditions under which protective labor laws could induce employers on net to employ more or fewer protected workers, and the methods used to measure the net effect of such protective laws. He explains that models in the economics literature used to test the relative importance of the ADA are the same as the ones that were used to show that the 1964 Civil Rights Act improved the employment rates of African Americans in the 1960s and beyond. But in the case of the ADA, the results using these models show the opposite outcome. He concludes that, after controlling for all other factors, the employment of working age people with disabilities fell after the ADA came into effect.

Using data from the CPS and SIPP, the major papers in the economics literature on this topic use econometric modeling to show that the employment of the working age population with disabilities fell after the passage of the ADA in 1990 and after its effective starting date in 1992 (Acemoglu and Angrist 2001, DeLeire 2000). Importantly, both of these studies define the population with disabilities as all working age persons reporting a work limitation. DeLiere defends the use of this population rather than a subset of it that reports being “able to work at all”

as the relevant population for his analysis, because, he believes, the answer to the able to work at all question is affected by the social environment that he is examining. That is, he believes that the social environment can influence whether a person with work limitations will report being able to work at all, and that to focus only on those with disabilities who so report will understate the effects that the ADA and other social factors have on employment of the larger population with disabilities who could have worked at all.

DeLeire concludes that the difference in the employment outcome of the 1964 Civil Rights Act and the ADA is likely to be the result of the burden that accommodation costs place on employers, and urges that policies to lighten that load be considered to reverse this outcome.

*Doug Kruse and Lisa Schur (Chapter 7B)* agree with the basic theoretical model described in the De Leire chapter, but argue that both the DeLeire (2000) and the Acemoglu and Angrist (2001) papers are flawed because they fail to control for all other factors in their empirical models. Like Kaye (Chapter 6), Kruse and Schur focus on the dramatic changes that have occurred in the severity of impairments and chronic conditions in the overall population with disabilities as the primary source of their concern. They report that their own work (Kruse and Schur 2002) replicates the DeLeire (2000) finding of a fall in the employment of the overall working age population with work limitations using SIPP data, but goes on to show that the employment rate of the work limited population who report being able to work at all rises following the passage of the ADA. They then report findings for a number of alternative definitions of the population with disabilities, and show that the results are quite sensitive to such choices.

In effect Kruse and Schur, although acknowledging the criticisms of others in this book, line up with Kaye in their conclusions that those who self report being unable to work at all

should not be included in policy analysis of the ADA. Thus, they conclude that increases in the severity of impairments in the working age population with disabilities reduced the overall employment rate, and that the ADA and/or possibly other changes in the social environment had a positive effect on the employment of working age people with disabilities.

*Peter Blanck, Susan Schwochau and Chen Song (Chapter 7C)* approach the economics based discussion in DeLeire and Kruse and Schur from the broader perspective of the law. They criticize the theoretical model used to analyze protective legislation like the 1964 Civil Rights Act and the ADA as too narrow in its assumptions about competitive labor and product markets. They provide a review of the theoretical literature that explicitly accounts for market failures via imperfect information and difference in the productivity of workers with and without disabilities and argue that simple competitive models fail to take into account additional possible reasons why firms that are not constrained by perfectly competitive markets would be willing to employ additional workers following the passage of protective legislation. Like both DeLeire and Kruse and Schur, they conclude that theoretical models are ambiguous in their predictions of the impact of the ADA on employment. Ultimately, the only way to assess the impact is through empirical research.

They go on to provide a more detailed institutional argument for the use of the kind of sub-populations discussed by both Kaye and Kruse and Schur (Chapter 7B) to study the consequences of the ADA on the employment of its specific protected class. They argue that because the ADA was intended to focus on only a small subset of the population with chronic conditions or work limitations, empirical analysis of its consequences should focus solely on the outcomes in its intended protected class. They conclude that such research has not yet been done,



and that it is premature to implicate the ADA as the main cause of the decline in the employment rate for people with disabilities.

### **Changes in Income Support Policies**

The Social Security Disability Insurance (DI) and Supplemental Security Income (SSI) programs are designed to provide cash benefits to individuals who have impairments that prevent “any substantial gainful activity.” A large economics based literature exists that links changes in the size of the DI and SSI population to changes in program eligibility criteria and their enforcement as well as to the generosity of program benefits relative to market wages. (See Bound and Burkhauser, 1999, for a review of this literature with respect to DI, and Daly and Burkhauser, forthcoming, for a review of this literature with respect to SSI.) Because not being “able to work at all” is essentially a precondition for receiving benefits, some argue that changes in program rules might have induced a greater proportion of those with work limitations to leave the labor force and declare themselves unable to work at all so they could receive benefits in the 1990s. That is, some people with disabilities might rationally choose DI or SSI benefits over work or continuing to look for work, if unemployed, given their expected wages and the costs, both monetary and non monetary, of working.

*Nanette Goodman and Timothy Waidmann (Chapter 8)* review the evidence that the expansion of the DI program during the late 1980s and early 1990s played a central role in accounting for the rise in the fraction of men who had work limitations and reported being unable to work at all. They primarily focus on two papers, Autor and Duggan (forthcoming) and Bound and Waidmann (2002), that use data from the CPS and a work limitation measure of disability, to argue that changes in DI eligibility and benefits are primarily responsible for the decline in the employment of working age people with disabilities. They first show, using data

from the CPS and NHIS, that there has been a close correlation between increased enrollment in the DI program and decreased employment over the past 30 years. They then argue that program expansions, which began in 1984, reduced the employment rate of working age people with disabilities in the early 1990s in two ways. First, many workers made eligible by the easing of eligibility standards in the mid-1980s began applying for DI benefits when the economy began deteriorating between 1990 and 1992 and they lost their jobs. Second, the wage indexing method used in the formula for determining benefit levels had the unintended consequence of increasing the value of the benefit, relative to wages, for low-wage workers. They argue that it was the change in DI eligibility rules over the period rather than a change in the underlying severity of impairment or chronic conditions that led to the sharp decline in the employment rates of those who reported work limitations in the CPS data. Empirically, they show that increases in the DI rolls account for the entire rise in the fraction of the population that both report that they have a work limitation and are not employed.

## **Who's Right?**

While the authors agree that the employment rate for all people with disabilities declined during the 1990s, they sharply disagree on the main cause. We are left with three main contenders:

- Increases in the severity of impairments and health conditions among those with work limitation or activity limitations, as argued by Kaye (Chapter 6) and Kruse and Schur (Chapter 7B);
- The passage and implementation of the ADA, as argued by DeLeire (Chapter 7A); and
- Easing of the eligibility standards and increases in the relative benefits of the DI and SSI programs, as argued by Goodman and Waidmann (Chapter 8).

At this point we leave the reader to weigh the evidence and arguments presented in Chapters 2 through 8. We provide our own assessment of the evidence in the book's concluding chapter (Chapter 9). We also consider the implications that the findings have for public policy.

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