12 Workplace disability

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1 Introduction

The key United States law regulating employment discrimination against employees with disabilities is the Americans with Disabilities Act (ADA). Title I of the ADA prohibits employment discrimination against any ‘qualified individual with a disability’. This proscription includes traditional prohibitions of ‘disparate treatment’ and ‘disparate impact’. Stewart Schwab’s chapter in this volume examines the economics of these forms of employment discrimination and efforts to regulate them (Chapter 10).

Another form of employment discrimination prohibited by the ADA is the failure to provide a ‘reasonable’ workplace ‘accommodation’ to a qualified individual with a disability. The statute defines those individuals as workers who are capable of performing the essential job functions of the respective positions sought, either with or without provision of reasonable accommodations. Because reasonable accommodations are the focus of scholarly and political debate over the ADA, while also being the main innovation in disability employment discrimination worldwide, this chapter will focus on accommodations.

As noted by Stein (2000, 2003, 2004), reasonable accommodations encompass a wide range of adjustments to existing workplace conditions, but mainly fall into one or both of two categories. The first category requires the alteration of the physical plant or equipment, such as ramping a stair to accommodate the needs of an employee who uses a wheelchair. These types of accommodations involve ‘hard’ costs, meaning that they impose readily quantifiable out-of-pocket costs on employers. Purchasing and installing a ramp, for example, is usually a one-time expenditure with a fixed and knowable cost.

The second type of accommodation involves the alteration of the way in which a job is performed. For example, this type of accommodation might mean not requiring a wheelchair-using store clerk to stack high shelves. These accommodations bring into play ‘soft’ costs which are more difficult to quantify. For example, a fellow worker might stack the high shelves while the hypothetical wheelchair-using employee staffs the cash register. Her circumstance might also require a human resource manager to meet with other employees to explain the change in their daily duties or a supervisor to learn how to take these alterations into consideration.
when evaluating overall job performance. Accommodations for qualified individuals with disabilities must be ‘reasonable’ and they must not create an ‘undue hardship’ for the providing employer. For an exhaustive treatment of what accommodations are reasonable from a law and economics perspective, see Stein (2003).

Although the ADA is a United States statute, it has had considerable influence on disability-related employment laws internationally. This is true for systemic national laws such as the United Kingdom’s Disability Discrimination Act that are closely modeled on the ADA as well as for international acts that borrow specific concepts from the ADA (Stein and Stein 2007). Notably, the ADA’s reasonable accommodation mandate has been adopted by the United Nations Convention on the Rights of Persons with Disabilities (United Nations 2007) as well as the European Union’s Employment Framework Directive (an umbrella antidiscrimination policy) (Stein 2007; Council of the European Union 2000). These enactments have triggered unprecedented interest in disability law and policy for the three-quarters of the world’s nations lacking any systemic domestic statute or legal provision (Stein and Lord 2008). They have also precipitated domestic law reform in countries seeking to balance antidiscrimination mandates, mainly modeled after the ADA’s reasonable accommodation provision, with social welfare initiatives such as the quota systems operative in Germany and Japan (Stein and Stein 2007). Consequently, the ripple effects from the ADA and its accommodation mandate have global implications, as do economic analyses that focus on the American model. These analyses are the principal focus of the remainder of this chapter.

2 Economic theory
The standard economic model of the labor market operates from a premise of efficiency. As part of this postulate, it is assumed that the market determines prices, free bargaining is the norm and knowledge is completely and symmetrically disseminated, resulting in labor prices based on production (Baumol and Blinder 1998, pp. 226–8, 313–14). According to this neoclassical model, market forces also discipline employers with irrational (and thus inefficient) tastes against particular groups by driving those employers from the market. This economic Darwinism occurs because employers’ discriminatory hiring practices add to business costs and result in comparative losses by diminishing profit margins (Clark 1998, p. 196). Exercising distaste (or socially negative preferences) also raises the net-product margin of nondiscriminatory competitors who engage same-group employees at reduced wage levels (Becker 1971). For a fuller discussion of the taste-for-discrimination theory and critiques of that theory, see Schwab (Chapter 10, this volume).
Resting on this foundation, the neoclassical paradigm posits that in the context of an efficient and properly functioning labor market, employers hire workers who will generate the greatest net productivity. This utility is calculated by subtracting total labor cost from total production benefit (Stein 2003, pp. 181–3). Because workers with disabilities are viewed as requiring costly additional inputs in the form of accommodations, an employer unconstrained by regulations so that she can act on her own preferences would rationally choose employees without disabilities (Epstein 1992; Kelman 2001).

The neoclassical economic model therefore leads to a conclusion that when employers are forced to hire employees with disabilities against their own considered judgment, these employers bear costs that they would not have otherwise borne. By contrast, if the market operated without regulatory constraints, workers with disabilities would sort down by being placed in less valuable positions, accepting lower wages at equally valuable places of employment, or bearing the costs of their own accommodations (Schwab and Wilborn 2003, p. 1272; Verkerke 2003; Epstein 1992). Consequently, accommodations are inherently inefficient because they reduce the individual employer’s utility. Accommodation mandates are also undesirable because they compel private employers (as opposed to, say, the general tax base) to bear the costs of an inefficient social policy (Issacharoff and Nelson 2001). Thus, exclusion of people with disabilities from the employment sphere is the result of rational, efficient (if regrettable) decision making, not overt discrimination, or a more benign discrimination resulting from the reliance on statistical discrimination. For a fuller discussion of statistical discrimination, see Schwab (Chapter 10, this volume).

This model also predicts that exclusion of workers with disabilities driven by economic efficiency is more likely to occur at the hiring stage when employers can avoid anticipated accommodation costs. As such, legal regimes that require workplace accommodations for workers with disabilities, besides being economically inefficient, create disincentives for hiring those workers. This outcome was predicted in advance of any empirical studies by Epstein (1992) and corroborated by Jolls (2000) as the likely consequence of inserting accommodation mandates into labor markets governed by supply-demand dynamics.

The scholarly literature has raised three challenges to this framework as it pertains to workers with disabilities. The first critique challenges the notion that the labor market functions efficiently in allocating employment opportunities to workers with disabilities. The second critique challenges the supposition that labor markets are typically competitive. The third critique challenges the assumption that all or most workers with disabilities require costly accommodations.
The first challenge to the neoclassical economic analysis of the labor market in this case questions the unqualified acceptance of these markets’ efficiency. The paradigm posits that rational employers will hire and retain workers with the greatest net product, while those who act irrationally by discriminating will be disciplined by market forces and driven out of the market (Clark 1991, p. 196; Kelman 2001, pp. 877–89). This premise is taken as a standard economic assumption by a majority of law and economics practitioners, but is questioned by a few (Donohue 1986, p. 1423; Sunstein 1991, p. 36). The challenge to this standard assumption builds on doubts about the model’s premise that labor markets are characterized by a complete and symmetrical distribution of information to all actors within a given market (Sen 2000, pp. 159–60). Simply put, in order to hire the workers with the highest net productivity, employers must be able to identify these workers.

Not all markets function equally with respect to the availability of relevant information. Although the assumption of perfect information might serve well for analysis of a financial market which is subject to extensive reporting requirements that are rigorously enforced by a government agency (Hazen 2005), no parallel structure exists in the labor market. Labor markets are not typically regulated for the purpose of requiring comprehensive information disclosure. Furthermore, the liquidity of financial market commodities does not extend to most other markets, including that for employment services, where the value of individual workers may be more difficult to determine (Baldwin and Schumacher 2002, p. 433).

Verkerke (2003) and Harris (2008) describe different types of information failures that can occur with respect to workers with disabilities. Verkerke (2003) describes how an employer, in the absence of an accommodation mandate, would hire a worker with a hidden disability (for example, a learning disability) and then fire that worker when she failed to meet productivity expectations. To avoid a defamation claim, the employer would not disclose the disability and, as a result, the worker would be hired by a mismatched second employer that is also unaware of the disability. This self-perpetuating process of ‘churning’ and ‘scarring’ leaves the worker with an employment record that deters even well-matched employers from hiring her. Harris (2008) focused on bilateral information asymmetries that frustrate negotiations over disability-related accommodations. While information asymmetries are not unique to this context, the nature and quantity of information involved may be quite different from that required to resolve traditional discrimination claims. Employers may not want to disclose proprietary information about the costs of production, workplace design costs and options, insights into industry practices, product market projections, and their own plans regarding human capital issues. Workers
with impairments may not want to disclose quite personal and extensive information about the nature and extent of their physical or mental impairments, their prognoses, the impairments’ potential consequences in the workplace, and the workers’ professional and personal preferences. Even if the worker is hired and discloses her disability, the employer may have insufficient experience with the particular disability at issue to know what medical information to seek or how to accommodate. The parties may be unable to find a cost-effective accommodation as a result.

An additional question about the neoclassical model’s efficiency premise is how to define ‘efficiency’ in the disability context. With respect to workers with disabilities, standard analysis derives an individual employee’s net marginal product by deducting labor and accommodation costs from total labor product (Stein 2003, pp. 181–3). This calculation operates from the assumption that accommodations benefit only recipient workers. Yet, Berven and Blanck (1998), Harris (2003) and Emens (2008) have noted that accommodations provided to individual workers with disabilities may generate second-party benefits to employees without disabilities, particularly when the technology or administrative methods engaged increase overall working efficiency. For instance, widespread use of email or the incorporation of voice recognition software (Berven and Blanck 1998) may make many workers without disabilities more productive. These second-party benefits would not ‘count’ in the standard cost-benefit analysis of an accommodation.

Similarly, it may be inappropriate to charge the entire cost of an accommodation to an individual employee with a disability if that accommodation affects co-workers or others. For example, installing a ramp for an employee using a wheelchair also makes the employer’s facilities accessible to mobility-impaired customers, caregivers pushing strollers and bicyclists. The employer may benefit as a result. Equally important, the cost of the ramp should be amortized over time and across all of these users. A standard analysis might not take these other beneficiaries or benefits into account (Stefan 1998, p. 832; Schultz 2000, pp. 1931–2).

A second challenge to the neoclassical model is that some scholars question the assumption that workers’ accommodation requests and employers’ accommodation decisions occur in competitive labor markets (Acemoglu and Angrist 2001; Jolls 2000; and Donohue 1994). In the traditional neoclassical model, it is assumed that all relevant labor market decisions are made within the context of a competitive ‘external labor market’. In this idealized external labor market, prospective employers choose among largely fungible job applicants who are mobile and offer general skills that may benefit many employers. Neither the job applicant nor the prospective employer invests significantly in the relationship before the job is offered.
and accepted. Choices do not bear significant transaction costs, so there are few barriers to a free-flowing market. In this idealized market, employees are ‘paid’ a package of wages, benefits and accommodations exactly equal to their marginal productivity (Harris 2007, pp. 11–18).

However, critics of the traditional neoclassical model argue that relevant employment decisions are often made in the context of the ‘internal labor market’ of each firm which is characterized by barriers to competition, in particular firm-specific skills and knowledge, job matching or efficiency wages. These barriers increase the efficiency of the employment relationship, particularly if it is sustained over the long term. The employee gets greater career compensation and increased employment security while the employer gets increased productivity and profitability (Harris 2007, pp. 11–18). Thus, the internal labor market creates a bilateral monopoly. Harris (2003, 2007) has argued that an accommodation and an incumbent employee’s impairment raises further barriers to competition that can strengthen the relationship between the employee and her employer. The result can be increased productivity and reduced or avoided transaction costs. As a result, accommodated employees with disabilities do not invariably return lower net productivity than employees without disabilities who need no accommodation, even if the employer incurs some cost in making the accommodation.

There is some empirical evidence within the American experience to support the argument that many accommodation requests are made by incumbent employees, perhaps within the context of an internal labor market. A large majority of ADA charges filed with the US Equal Employment Opportunity Commission are made by incumbent employees, not applicants for jobs (Schwab et al. forthcoming). In 2005, 1.2 million incumbent employees in the private sector suffered workplace illnesses or injuries requiring recuperation away from work beyond the day of the incident (Sengupta et al. 2007, p. 30). Data drawn from the 1992 Health and Retirement Study, a survey of Americans between the ages of 51 and 61, found that 36 per cent of people in that age range with work-limiting impairments acquired those impairments because of an accident, injury or illness at work. Thirty-seven per cent of Social Security Disability Insurance recipients in the same age group experienced a disability because of an accident, injury or illness at work (Reville and Schoeni 2003–4).

In a third challenge to the neoclassical economic account, some scholars question whether: (1) workers with disabilities often require accommodations; and (2) these accommodations are inherently costly. Empirical studies have not established the prevalence of the need for accommodation among workers with disabilities across the labor market, although it is reasonable to assume that some percentage of employees with disabilities...
will require accommodations. The size of this group, however, depends upon the individual circumstances of present or prospective employees, the degree to which an employer’s worksite and processes already are accessible, and how the term ‘disability’ is conceived or measured. There is, however, no reason to suspect that every employee with a disability requires an accommodation as counterexamples to any such broad generalization are abundant.

Some disability rights advocates advance the theory that the provision of accommodations serves to ameliorate artificial exclusions from the workplace (Stein 2004). They analogize, for example, designing workplaces with stairs to designing workplaces without restrooms for both sexes because each construction reflects a mutable social convention regarding bodily norms (Silvers 1998; Wendell 1996). In contrast, the vast majority of academics taking an economic approach to the ADA maintain that the accommodation mandate is qualitatively different from more traditional forms of antidiscrimination prohibited by statutes like the Civil Rights Act of 1964 (Stein 2004). Consequently, they view the provision of accommodations as going beyond measures to eliminate what Kelman (2001, p. 840) describes as ‘simple’ discrimination and venturing into redistribution or even, in extreme circumstances, affirmative action. It bears noting, however, that Jolls (2001), Stein (2004) and Stein and Waterstone (2006) have pressed the opposite argument. Jolls has questioned the received wisdom by noting that antidiscrimination and accommodation regulations can overlap and that in doing so their economic impacts are indistinguishable (Jolls 2001, p. 645). Stein (2004) has illustrated how, in many cases, disability-related accommodations closely resemble traditional civil rights remedies for disparate treatment and disparate impact and that both imposed socially reasonable ameliorative costs. Finally, Stein and Waterstone (2006) have argued that disparate impact remedies were both proper and practical within the ADA context.

The disagreement over whether the ADA achieves an antidiscrimination medium, supersedes it or achieves some combination of both is relevant to policymaking discussions. The determination of what constitutes ‘equality’ and thus where irrational behavior is to be averted delineates who should bear which of the associated costs. If accommodations effectuate equality, then it will seem appropriate to lay the costs for those accommodations at the feet of employers. On the other hand, if reasonable accommodations are viewed as redistributive devices, however laudable, then it would be more appropriate to have the general tax base bear those costs (Stein 2003, pp. 144–78). The examination of this issue also bears on the debate over the undervaluation of the labor of workers with disabilities. Just as was found in the examination of the nature of accommodations, the closer to the
equality paradigm one gets, the less fitting it is to allow an equally valuable worker who also happens to have a disability to undervalue her services as the price of gaining entry to the labor market. Such underbidding would simply compound pre-existing societal prejudices.

3 Empirical work
There is a growing empirical literature that has tested the hypothesis that an accommodation mandate will result in negative relative employment effects for workers with disabilities. Virtually all of the United States government’s statistical measures show that American workers with disabilities are employed at a much lower rate than workers without disabilities and there is little debate that the employment rate of disabled workers with disabilities has declined over the past sixteen years (Burkhauser et al. 2008; Stapleton and Burkhauser 2003; Autor 2004; Bagenstos 2004a). The empirical literature has endeavored to assess the ADA’s contribution to that decline.

Two early studies documented a decline in the employment rate of workers with disabilities around the time of the enactment and implementation of the ADA. Acemoglu and Angrist (2001) studied data from the Current Population Survey (CPS) and found a decline in the employment rate among both men and women with disabilities between the ages of 21 and 39 in the two years immediately after the ADA took effect in 1992. DeLeire (2000) examined data from the Survey of Income and Program Participation and found a substantial decline in the employment rate of men with disabilities beginning in 1990, after the ADA was passed, but two years before it took effect. According to these studies, the proximity of the ADA’s passage to the decline in the employment rate of workers with disabilities suggests a causal relationship between the law and the decline. However, a number of scholars have taken issue with the findings of Acemoglu and Angrist (2001) and DeLeire (2000). These empirical challenges to the notion that the ADA has resulted in a decline in the employment rate of working-age Americans with disabilities can be broken down into three different groups.

One group of critics of the findings of Acemoglu and Angrist (2001) and DeLeire (2000) accept their conclusion that there has been a statistically significant decline in the employment rate for working-age Americans with disabilities that occurred around the same time as the passage or effective date of the ADA, but argue that this decline came about because of causes that are independent of the ADA. Jolls and Prescott (2004) disaggregated the effects of the ADA’s accommodation mandate from its prohibition on the traditional forms of discrimination (that is, disparate treatment and disparate impact) by comparing the pre- and post-ADA employment rates.
in three different types of states: those without any pre-ADA disability anti-discrimination laws (‘no protection states’), those that had pre-ADA laws prohibiting traditional forms of discrimination but not requiring accommodation (‘no accommodation mandate states’) and those that had pre-ADA employment discrimination regimes that both prohibited the traditional forms of discrimination and mandated accommodations (‘ADA-like states’). In ‘no protection states’, all of the ADA’s protections for workers with disabilities – the accommodation mandate and the traditional antidiscrimination provisions – were innovations. In ‘no accommodation mandate states’, only the ADA’s accommodation mandate was an innovation. In ADA-like states, the ADA added no innovations. This methodology isolated the effects of the accommodation mandate.

Jolls and Prescott (2004) found a 10 per cent decline in the employment rate of workers with disabilities in no accommodation mandate states compared with ADA-like states. There was no comparable decline in no protection states when compared with ADA-like states. Thus, the ADA’s accommodation mandate, but not the prohibitions on traditional discrimination, caused a short-term decline in the employment rate for workers with disabilities. However, the study suggested that accommodations’ actual costs did not produce this result. Instead, accommodations’ costs ‘may well have been exaggerated or particularly salient in employers’ minds just after the ADA’s enactment’ (Jolls and Prescott 2004, p. 21). In other words, rather than acting rationally in response to added labor costs, employers may have reacted to the ‘perceived costs’ of accommodations.

Support for the thesis that employers may not always respond rationally to disability-related accommodations was found by Harris (2008) in his survey of participants in the US Equal Employment Opportunity Commission’s (EEOC) mediation program (which resolves disputes between workers charging discrimination and their employers). The survey responses suggested that mediators faced additional barriers when assisting employers and employees negotiating over disability-related accommodations as compared with negotiations over any other employment discrimination issue including other types of disability discrimination charges. One of those added barriers was employers’ apparent bias against workers’ disability-related accommodations requests. When asked to remedy other allegations of employment discrimination, employers agreed to solutions proposed in negotiations that were ‘realistic’. In negotiations over disability-related accommodations, however, employers were less likely to agree to an accommodation even if they considered it ‘realistic’ (Harris 2008, pp. 59–63). This evidence suggests that employers voluntarily participating in the EEOC’s mediation program systematically doubted
the legitimacy of workers’ requests for disability-related accommodations regardless of their merits.

A second group that challenges the findings of Acemoglu and Angrist (2001) and DeLeire (2000) reject their results on the basis of what they identify as methodological deficiencies. Early critics argued that the studies did not properly exclude other possible, even likely, causes of the employment-rate decline other than the ADA’s accommodation mandate (Bound and Waidmann 2000; Kruse and Schur 2003; Schwochau and Blanck 2000). But these criticisms would not also be relevant to Jolls and Prescott (2004). Any factor with national reach which Acemoglu and Angrist (2001) or DeLeire (2000) might not have considered would have affected employment rates in all states, not merely in no accommodation mandate states where Jolls and Prescott (2004) found a statistically significant employment-rate decline. These criticisms cannot explain the employment-rate decline identified in that later study.

Yet, Burkhauser et al. (forthcoming) revisited the data set used by Acemoglu and Angrist (2001) and found two methodological concerns. First, the study reconsidered the definition of ‘disability’ from which the original data set was constructed. Acemoglu and Angrist (2001, p. 11) studied working-age people who answered ‘yes’ to the following question on one year’s March CPS: ‘Does [respondent] have a health problem or a disability which prevents him/her from working or which limits the kind or amount of work he/she can do?’ Burkhauser et al. (2008) considered only those workers who answered ‘yes’ in two consecutive years on the theory that these workers were likeliest to be in the ADA’s protected class. This reconstructed data set eliminated evidence of a sharp post-ADA employment-rate decline. This outcome strongly suggests that the results in Acemoglu and Angrist (2001) are too sensitive to a particularized definition of ‘disability’. Since Jolls and Prescott (2004, pp. 4–5) studied the same group of workers considered by Acemoglu and Angrist (2001), the later study’s results may also be too sensitive to the definition of ‘disability’ to establish a causal relationship between the ADA’s accommodation mandate and the employment-rate decline.

Second, Burkhauser et al. (forthcoming) expanded the time horizon studied in Acemoglu and Angrist (2001) to encompass pre-ADA business cycles. This broader view allowed the authors to find equivalent employment-rate declines during earlier economic slumps. Thus, economic recession, rather than the ADA’s passage, might have explained the purported post-ADA employment-rate decline identified by Acemoglu and Angrist (2001). However, Jolls and Prescott (2004) adjusted for economic conditions across states, so the same criticism does not apply to their results. Nonetheless, Burkhauser et al. (forthcoming) found that the decline in the
employment rate of workers with disabilities began in the mid-1980s rather than in the early 1990s when the ADA was enacted. This result has been corroborated by Donohue et al. (forthcoming) using data from the Panel Study of Income Dynamics (PSID) that are unique in their ability to track the same individuals over time. For individuals over the period 1981–96, the study was unable to detect an ADA-related employment effect, but did locate a negative trend for real hourly wages. This trend, however, originated well before the ADA’s passage.

A third group of critics who reject the findings of Acemoglu and Angrist (2001) and DeLeire (2000) challenges the empirical premise that workplace accommodations impose positive costs on employers. Hendricks et al. (2005), Schartz et al. (2006), and Blanck et al. (2008) surveyed employers that contacted the US Department of Labor’s Job Accommodation Network, a voluntary and free service offering advice and information about workplace accommodations, about the costs and benefits of workplace accommodations. The surveys found that the benefits these employers derived from accommodations frequently outweighed their costs. The accommodations often imposed no added cost and, when they had a cost, were inexpensive. The studies also found that employers commonly derived a net benefit by avoiding search and training costs for new employees and improving the accommodated employees’ productivity and attendance.

This third group of studies is subject to at least two limitations. First, there may have been a selection bias resulting from surveying employers that had already decided to seek accommodation advice from the US government. For a discussion of a related selection bias in earlier studies, see Stein (2000, pp. 1676–7). Second, an overwhelming number of survey participants were addressing accommodation requests from incumbent employees with disabilities, not job applicants. As a result, Hendricks et al. (2005), Schartz et al. (2006) and Blanck et al. (2008) may offer evidence of the internal labor market dynamic discussed in Harris (2003, 2008), but provide little insight into an accommodation mandate’s effects on external labor market transactions.

Finally, it bears noting that there is an almost complete absence of empirically rigorous cost-benefit analysis that would balance quantifiable costs of the type reported by the above studies against quantifiable benefits culled by accommodating workers with disabilities (Stein 2000, pp. 1660–63). Although Harris (2003) explored the value of sunked costs in the context of accommodating incumbent workers who experience a disability, we are unaware of a study that comprehensively analyzes relevant external benefits ranging from reduced turnover to improved corporate culture as against relevant internalized costs (Stein 2003, pp. 103–8). There also is a dearth of empirical study on the related but broader issue of the
costs and benefits to society of governments subsidizing work-related accommodations (Stein 2003, pp. 167–77).

4 Areas for further empirical study

Alternatives to the hypothesis that accommodation mandates reduce employment rates among working-age people with disabilities are likely to proliferate as this relatively young scholarly debate matures. This section proposes three alternatives worthy of further study.

A Educational attainment

American adults with disabilities have less education than those without disabilities. To illustrate, in 2006, 9.3 per cent of American students without disabilities dropped out of high school compared with 15.3 per cent of students with disabilities (National Center for Education Statistics 2008, table 105; IDEAdata.org 2008, table 4–1). In that same year, American adults with disabilities were less likely to have a high school diploma or more education than adults without disabilities and a little more than one-third as likely to have a bachelor’s degree (Rehabilitation Research and Training Center on Disability Demographics and Statistics 2006, pp. 36–40). American students with disabilities are less likely than their counterparts without disabilities to enroll in some form of post-secondary education, significantly less likely to enroll in a four-year college program rather than a two-year degree program, and less likely to graduate with a bachelor’s or associate’s degree (Horn et al. 1999, pp. 29–30, 39). While few workers with disabilities have bachelor’s degrees, those who do have generally comparable employment rates and salaries to those of baccalaureates without disabilities and they enrolled in graduate school at similar rates, at least within the first year after earning a bachelor’s degree (Horn et al. 1999, p. vi).

A correlation between lower educational attainment and lower employment rates, as well as lower wages, would be entirely consistent with a traditional neoclassical account of labor markets. The difficulty comes with explaining the continuing decline in the employment rate of working-age Americans with disabilities. The educational attainment gap between

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1 These data describe students who received services under the Individual with Disabilities Education Act (IDEA). Virtually all American students with disabilities receive IDEA services, so these data are a reasonable proxy for all students with disabilities. In 2005–6, 679 238 IDEA students exited high school and 104 101 were ‘drop outs’. The 15.3 per cent drop-out rate was calculated by dividing the former number into the latter (National Center for Education Statistics 2008; IDEAdata.org 2008, table 4–1).
workers with and without disabilities is not new. For example, Loprest and Maag (2007) found that early onset of disability (that is, before age 22) was associated with a lesser likelihood of completing high school and finding employment. However, the importance of this educational attainment gap may have increased as the American economy has demanded ever-higher levels of education from workers. As Lynch explains in this volume (Chapter 4), ‘Over the past twenty-five years workers with substantial amounts of human capital in the form of education and training have been better able to survive the labor market challenges of technological innovation and globalization and have seen their earnings rise’. Yelin and Trupin (2002) discussed a long list of changes in the US economy that make the lesser educational attainment of workers with disabilities problematic to their pursuit of employment. Krueger (1997) also raised this issue in an early study of workers with spinal cord injuries and computer use. Future empirical study should build on these preliminary assessments to determine whether a continuing, if shrinking, gap in educational attainment between workers with and without disabilities has contributed to the ongoing decline in the employment rate.

**B Health care**

Burkhauser et al. (forthcoming) concluded that working-age Americans with disabilities’ increased reliance on Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) was a more likely explanation for the declining employment rate in the 1990s than the ADA’s accommodation mandate. SSDI provides cash support to people with substantial work histories who have serious or deadly impairments and cannot engage in ‘substantial gainful activity’ (in 2008, about $940 in monthly earnings for non-blind beneficiaries) anywhere in the national economy. People with disabilities who do not have substantial work histories receive SSI benefits. For a critique of the SSDI and SSI systems and societal expectations regarding disability and work, see Diller (1996).

In households of men with disabilities, Burkhauser et al. (2008) found that earnings have represented a declining portion of household incomes for more than two decades, while SSDI and SSI benefits have represented a growing portion. Relaxed eligibility standards for these programs in the

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mid-1980s may have been the cause. A traditional neoclassical account would suggest that more readily accessible SSDI and SSI benefits influence eligible workers’ reservation wages. Workers with disabilities can be expected to choose SSDI or SSI benefits over work if the value of those benefits discounted by the transaction costs associated with obtaining the benefits exceed the workers’ likely wages. Given the very low level of SSDI and SSI monthly benefits, it is difficult to imagine a worker choosing beneficiary status over work. However, as with the discussion of educational attainment above, any assessment of ‘likely wages’ would be affected by workers with disabilities’ perception that they will encounter discrimination that makes securing a job more difficult or, if they get a job, reduces the wages they receive. Bagenstos (2003b) argued that moving people with disabilities from public assistance to work was a principal goal of the ADA. Burkhauser and Stapleton (2004), Burkhauser (1997) and Stone (1984) have argued that it is relevant whether government policy is premised on an expectation that a population should be employed and therefore focused on moving that population into the labor force.

The drive to seek SSDI and SSI benefits rather than employment may have been expedited by the unavailability of employer-provided health insurance for many workers in the United States. SSDI and SSI beneficiaries are entitled to health insurance provided by Medicare or Medicaid respectively. These programs also typically provide more comprehensive coverage than private insurance. Working-age Americans with disabilities therefore have a substantial incentive to seek and continue receiving SSDI or SSI benefits: comprehensive health insurance that cannot be lost or taken away as long as beneficiary status is maintained (Bagenstos 2004b, pp. 26–34). As noted by Stein and Stein (2007, pp. 1211–12), it took nearly a decade after the ADA’s enactment for Congress to allow beneficiaries to maintain their health care coverage while transitioning from SSDI or SSI to employment. During this period no job training programs were created to serve people with disabilities, although they were developed for other historically disadvantaged groups as part of dramatic welfare reforms in the mid-1990s. The spreading entropy in the US’s employer-provided health insurance system is a second hypothesis that deserves further study as a possible explanation for the continuing decline in the employment rate among working-age Americans with disabilities.

C Discrimination
The scholarly literature has observed that workers who are likely to suffer discrimination in the labor market face lower returns to their human capital investments and, as a result, are less likely to acquire more human capital through education and training (Donohue and Heckman 1991).
Like other self-fulfilling prophecies, this is because of a Catch-22: certain workers are disadvantaged in the workplace because they are believed to have lower net productivity values (Stein 2003, pp. 156–7). In turn, those workers invest less in their own human capital because they believe that they will be disadvantaged in the workplace (Strauss 1991, p. 1640).

Jolls (2004) posited and found some preliminary evidence that workers with disabilities exited the labor market to increase their investments in human capital after the ADA promised an end to discrimination. By contrast, Burkhauser et al. (1999) found that, in the pre-ADA era, workers who experienced a work limitation and received accommodations from their employers remained in the labor market longer by significantly delaying their applications for SSDI benefits after the advent of the work limitation, although larger SSDI benefits and other factors had a countervailing effect. Rovba (2006) bridged the inquiries in Burkhauser et al. (1999) and Jolls and Prescott (2004) and found that workers living in ADA-like states were substantially slower to apply for SSDI benefits after acquiring a work limitation than workers living in no accommodation mandate states who were, in turn, slower than workers living in no protection states. These studies suggest that greater protections against discrimination, particularly if they actually result in employers providing accommodations, cause workers with disabilities to increase either their labor force participation or their acquisition of human capital.

The obverse of Jolls’ hypothesis may not be true. Workers with disabilities facing a rising risk of discrimination – because laws are either changed or prove ineffective – would seem to be unlikely to leave school or training to enter or re-enter the labor market. Instead, Burkhauser et al. (1999) and Rovba (2006) suggest that they would leave the labor market and join the SSDI rolls or never enter the labor market and become SSI beneficiaries. It also seems likely that these working-age people with disabilities will underinvest in their own human capital because they believe that they will be disadvantaged in the workplace regardless of their skills and knowledge. As discussed above, their low level of education would result in worse labor-market outcomes.

The United States offers fertile territory for testing this hypothesis. The US Supreme Court drastically narrowed the scope of the ADA’s coverage with several decisions issued during the late 1990s. The Supreme Court also strengthened employers’ defenses to accommodations claims. As a result, a large but unquantified number of working-age Americans with disabilities were left without protection against workplace or labor-market discrimination, and those who remained covered by the ADA could rely only on weakened protections from discrimination. Stripped of an expectation of protection from discrimination, workers with disabilities might
have had little choice but to opt for the certainty of SSDI and SSI rather than discriminatory competition for employment. Further, workers with disabilities who chose to enter the labor market may not have invested adequately in education and training because they anticipated that their returns would be suppressed by discrimination.

Thus, a third hypothesis in need of further study is whether a rising risk of unremedied discrimination, whether real or perceived, and its effects on both labor market participation and human capital acquisition have caused the employment rate of working-age Americans to continue its decline.

Bibliography


Workplace disability


