

The Recent History and Immediate Future of Employment among Persons with Disabilities

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EDITOR'S NOTE

Edward H. Yelin challenges the conventional wisdom that the combination of the boom in the service industry and the need for workers yields a rosy outlook for employment of persons with disabilities. Even with the 17-year-old antidiscrimination mandate of section 504 of the Rehabilitation Act, he points out that persons with disabilities continue to experience disproportionate rates of unemployment and layoffs: "The employment picture for persons with disabilities has worsened dramatically over the last two decades, despite the presence of section 504 of the Rehabilitation Act and a huge expansion of the labor force during the 1980s."

With section 504 protections contributing to the employment of persons with disabilities by helping to prevent a bad trend from becoming worse, what are the prospects for the ADA in terms of improving employment of persons with disabilities? Yelin argues for regular monitoring of employment trends through a highly visible reporting mechanism, paying particular attention to businesses and industry undergoing rapid expansion and contraction.

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The Americans with Disabilities Act (ADA) is the latest in what is now the 26-year history of civil-rights legislation beginning with the Civil Rights Act of 1964 and designed to reduce discrimination against racial and ethnic minorities, women, and, more recently, persons with disabilities.¹ ADA succeeds, by close to two decades, the passage of the Rehabilitation Act of 1973 (with its landmark section 504 barring discrimination against persons with disabilities by any program or activity receiving federal funds or conducted by executive agencies) (see Scotch [1984] for a description of the regulations underlying section 504). Although civil-rights legislation generally has had a salutary effect on access to public and private facilities and transportation, the record with respect to employment is, at best, a mixed one. Although laws bar discrimination against minorities in employment, they cannot provide the skills to compete in the contemporary economy or reduce the physical distance between where minorities live and where the jobs are. Laws bar discrimination against women in employment, but they cannot ensure women the same kind of work or pay as men. The ADA bars discrimination against persons with disabilities in employment, but it may not convince employers that such persons will be productive or purchase the equipment to help them do their jobs. In short, the law cannot guarantee work.

My purpose here is to speculate about the employment prospects of persons with disabilities in the wake of the ADA, to describe some of the mechanisms by which we might monitor the impact of the ADA on work, and to suggest a few strategies both to improve the employment situation of persons with disabilities and our ability to measure it.

Most analysts are sanguine about the employment prospects of persons with disabilities, citing as evidence for this optimism the expansion of the service sector of the economy over the last decade and the small size of the cohorts now entering the labor force (Interstate Conference of Employment Security Agencies 1990; Kutscher 1989; Silvestri and Lukasiewicz 1989). Based on the research that I and others have done on the labor-force participation of persons with disabilities, however, I do not share this optimism (U.S. Bureau of the Census 1989; Yelin 1986; 1989). The employment picture for persons with disabilities has worsened dramatically over the last two decades, despite the presence of section 504 of the Rehabilitation Act and a huge expansion

of the labor force during the 1980s. Whereas it is true that the recent expansion of the service sector redounded to persons with disabilities, this trend did not offset declines in other sectors of the economy. More important, in the years to come, the service sector apparently will not expand at the same rate as in the 1980s.

Thus, despite passage of the ADA, persons with disabilities may face a difficult time sustaining employment. With the apparent onset of a recession, we will have to be extremely vigilant to ensure that persons with disabilities do not bear a disproportionate share of the costs of retrenchment. I am not sure we have the tools to assess the impact of ADA on employment, let alone to do something about it.

LABOR-FORCE DYNAMICS IN THE 1970s AND 1980s

Table 1 summarizes the dramatic changes that have been taking place in the U.S. labor market over the past two decades. The labor-force participation rate of working-aged adults increased by 10 percent during this time. However, this overall increase masks a slight 3 percent decline in the labor-force participation rate of men, and a phenomenal 36 percent growth in the labor-force participation rate of women. Women with disabilities did not share fully in the growth in labor-force participation among women generally, and men with disabilities experienced a disproportionate share of the decline among men. Thus, the labor-force participation rate of women with disabilities increased 30 percent, but this was only 83 percent as fast as the growth among women without disabilities. In contrast, the labor-force participation rate of men with disabilities declined by 15 percent, five times the decline among men without disabilities.²

The entrance of women into the labor market has been well chronicled, as has the overall growth in the percentage of working-aged adults in the labor force. The declining labor-force participation of men has not received as much attention. In addition, most of the public is unaware of the extent to which the gains among women are concentrated among young women and the losses among men are concentrated among older men, in effect transforming the labor market from one dominated by men of long job tenure to one dominated by women who only began to work recently. Table 2 highlights these changes. Between the early 1970s and late 1980s, the proportion of women aged

Table 1
 Secular Changes in Labor Force Participation Rates of U.S. Adults, Aged 18-64,
 1970-1972 vs. 1985-1987, by Gender and Disability Status

Gender	Disability status	1970-1972	1985-1987	Change (%)
Both	All statuses	63 %	69 %	+ 10
	With disability	46	44	- 4
	No disability	65	73	+ 12
Men	All statuses	85	82	- 3
	With disability	64	54	- 15
	No disability	88	85	- 3
Women	All statuses	43	58	+ 36
	With disability	27	35	+ 30
	No disability	45	62	+ 38

Source: Author's analysis of 1979 through 1987 National Health Interview Survey. This survey defines disability in terms of activity limitation due to chronic disease, impairment, or injury. Labor force participation rates are defined as the percentage of a group employed or actively looking for work. Preliminary analysis of the 1988 NHIS data, just made available, confirms the continuation of trends displayed here. Some of the estimates in tables 1 and 2 may differ by 1% to 2% from the true percentages in the population due to a combination of sampling variability and rounding errors.

18 to 44 in the labor force grew by 45 percent and the absolute number more than doubled. The proportion of women aged 45 to 54 in the labor force also grew dramatically (rising by 30 percent), but the proportion of women aged 55 to 64 in the labor force increased by only 3 percent. During this time, the proportion of men aged 55 to 64 in the labor force decreased by 17 percent (to 68 percent), and the absolute number actually declined slightly. The proportion of men aged 45 to 54 in the labor force declined much more slowly, reaching 89 percent by the late 1980s. Because the magnitude of the increase among young women exceeded the decline among older men, the proportion of all adults in the labor force increased by 10 percent, as shown in table 1. Thus, more of us are in the labor force, but overall the labor force has been feminized, primarily by the influx of younger women and the withdrawal of older men.

Race and disability status (separately and in combination) have

TABLE 2
 Secular Changes in Labor Force Participation Rates of U.S. Adults, Aged 18-64, 1970-1972 vs. 1985-1987,
 by Gender, Race, Age, and Disability Status

Gender	Age	Disability status	All races			Whites			Nonwhites		
			1970-1972	1985-1987	Change (%)	1970-1972	1985-1987	Change (%)	1970-1972	1985-1987	Change (%)
Men	18-44	All statuses	83%	83%	-0	83%	84%	+1	80%	73%	-9
		With disability	69	63	-9	71	67	-6	52	40	-23
		No disability	84	84	0	85	86	+1	82	76	-7
	45-54	All statuses	93	89	-4	94	91	-3	86	81	-6
		With disability	69	60	-13	73	64	-12	45	37	-18
		No disability	98	95	-3	98	96	-2	97	91	-6
	55-64	All statuses	82	68	-17	82	69	-16	77	62	-19
		With disability	53	38	-28	54	40	-26	40	25	-38
		No disability	93	79	-15	92	79	-14	93	78	-16
Women	18-44	All statuses	42	61	+45	41	62	+51	50	58	+16
		With disability	32	44	+38	32	46	+44	30	34	+13
		No disability	43	62	+44	41	63	+54	52	60	+15
	45-54	All statuses	46	60	+30	46	64	+39	56	65	+16
		With disability	24	30	+25	29	40	+38	31	28	-10
		No disability	51	70	+37	50	68	+38	63	75	+19
	55-64	All statuses	40	41	+3	39	41	+5	42	43	+2
		With disability	21	21	0	21	22	+5	22	20	-9
		No disability	45	50	+11	44	49	+11	51	58	+14

Source: See footnote to table 1.

accentuated both trends (table 2). That is, the withdrawal of older nonwhite men from the labor force has been occurring faster than the withdrawal of older white men, and the entrance of younger nonwhite women has been occurring slower than among younger white women. Meanwhile, the labor-force participation rate of older men with disabilities is falling faster than among those without disabilities, while the labor-force participation rate of younger women with disabilities has been rising more slowly than among those without. Finally, as might be expected, nonwhites with disabilities fare the poorest: older nonwhite men with disabilities have sustained the largest fall in labor-force participation rates, and younger nonwhite women with disabilities are entering the labor market more slowly than white women—regardless of disability status—and more slowly than nonwhite women without a disability. Indeed, nonwhite women aged 45 to 54 and 55 to 64 with disabilities, alone among all women, actually have experienced a reduction in labor-force participation rates.

Whereas labor-force participation rates among white men aged 55 to 64 without disabilities declined 14 percent over the past two decades, in this age group the rates fell 16 percent among nonwhite men without disabilities, 26 percent among white men with disabilities, and 38 percent among nonwhite men with disabilities. Similarly, whereas labor-force participation rates increased 54 percent among white women aged 18 to 44 without disabilities, in this age group the rates rose 44 percent among women with disabilities (a substantial, albeit smaller, increase), but only 15 percent among nonwhite women without disabilities and by 13 percent among women with disabilities. Note, too, that nonwhite women aged 45 to 54 and 55 to 64 with disabilities experienced 10 and 9 percent declines, respectively, in labor-force participation rates at a time of increasing participation among this age group of white and nonwhite women without disabilities and even among white women with them.

To summarize, the overall labor-force participation rate—regardless of gender, age, or disability status—increased 10 percent over the last two decades because the increases among young women overshadowed the decreases experienced by older men. Likewise, this overall increase masks substantial increases among persons without a disability (12 percent) and a worsening employment picture for those with disabilities (the labor-force participation rate fell by 4 percent among all working-aged persons with a disability, dropping even more, as noted above, among some subgroups). Thus, on balance, the person with a disability

fared worse in the labor market at the end of the period than at the beginning, even though the labor force expanded both absolutely and relatively during this time. The only groups with disabilities that fared better—white women of all ages and young nonwhite women—experienced much smaller gains in their labor-force participation than comparable women without disabilities.

THE ECONOMIC CONTEXT OF EMPLOYMENT TRENDS

The downward trend in employment among persons with disabilities did not affect those in all occupations and industries evenly. Instead, the trend was part of the more general transformation of the economy. At a time when the words “downsizing,” “displacement,” and “outsourcing” became part of the everyday lexicon, persons with disabilities experienced these phenomena first hand. The occupations and industries that they left were those in decline: principally manual labor and craft occupations in the manufacturing, construction, agriculture, and mining industries in the first part of the period (a trend that continues) and then professional and managerial occupations in the financial and wholesale/retail industries in the last few years.

In contrast, the booming service industry absorbed hundreds of thousands of persons with disabilities to fuel its expansion, a fact not lost on anyone visiting a fast-food salad bar recently. The proportion of persons with disabilities in the service industry increased 18 percent over the last two decades; the increase since the 1982 recession alone was 28 percent. As one might expect, older men with disabilities left the declining industries and younger women with disabilities entered ascending ones. For example, the proportion of white men aged 55 to 64 with disabilities in laboring occupations declined by 29 percent since 1970 and the proportion of black men aged 55 to 64 with disabilities in laboring occupations declined 43 percent during this time. Overall, this occupation contracted 20 percent in relative terms. Meanwhile, the proportion of women aged 18 to 44 with disabilities in the service industry grew 27 percent after 1970.

Although not all occupations and industries fit the pattern perfectly, enough do that I can state this general rule: persons with disabilities, like those from minority races, constitute a contingent labor force, suffering displacement first and disproportionately from declining

industries and occupations, and experiencing gains in ascending ones only after those without disabilities are no longer available for hire. Because the prevalence of disability is much higher among persons in the immediate preretirement years and because the number of occupations and industries descending has been greater than the number ascending, the decreases in the labor-force participation of older workers with disabilities overshadow the gains among younger ones, and so, overall, labor-force participation rates among persons with disabilities have declined.

THE IMPACT OF SECTION 504

Section 504 of the Rehabilitation Act of 1973 bars discrimination in employment among persons with disabilities in programs or activities receiving federal funds or conducted by federal agencies. Because section 504 served as a model for the Americans with Disabilities Act, its impact on employment in the intervening years may prove a bellwether for the ADA. The publicly available data are insufficient to evaluate the impact of section 504 on employment by recipients of federal funds in the private sector. The legislation appears to have had mixed results on the employment of persons with disabilities in government.³ Between 1970 and 1982, the number of government workers grew absolutely (from about 4.5 to over 6 million workers) and as a proportion of the entire labor force (from 5.7 to 5.8 percent). This represents a growth of 2 percent in relative terms. During this time, the number of government workers with disabilities increased from .45 to .62 million and the proportion of all government workers with disabilities rose from 9.9 to 10.2 percent of the governmental work force, or by 3 percent in relative terms.

In the intervening years, government employment contracted quite severely, shrinking 11 percent in absolute terms and 19 percent in relative terms between 1982 and 1987. The absolute number of government workers with disabilities declined by 18 percent during this time and the proportion of government workers with disabilities declined from 10.2 to 9.4 percent, or by 8 percent in relative terms. Meanwhile, the absolute number of government workers without disabilities declined by 10 percent (far smaller than the 18 percent decline among government workers with disabilities) and, by definition, the propor-

tion of all government workers without disabilities rose from 89.2 to 90.6, an increase of 2 percent in relative terms. Thus, section 504 was not successful in ensuring that persons with disabilities shared in the employment gains occurring during the earlier period when government employment was expanding. Later, the legislation did not prevent workers with disabilities from bearing a disproportionate share of the retrenchment in government employment that was occurring throughout the 1980s. Nevertheless, persons with disabilities working in government fared much better than those in other sectors of the economy undergoing retrenchment.

These data on the impact of section 504 suggest that the ADA may not be successful either in preventing disproportionate displacement among persons with disabilities from industries undergoing retrenchment or in assisting such persons in finding work in the expanding sectors of the economy. Moreover, we must remember that even though government workers with disabilities fared better than those in other declining industries in recent years, the proportion of persons with disabilities in government continued to fall during this time, suggesting that the old saw about things getting worse more slowly may apply here.

IN THE IMMEDIATE WAKE OF ADA

The employment "boom" of the 1980s was, in fact, a service and financial-industry boom, coupled with a manufacturing and extractive-industry bust.⁴ Because the magnitude of the service boom exceeded that of the manufacturing bust, overall the labor force expanded 14 percent in absolute terms and 3 percent in relative terms during the decade, in the process absorbing the young, especially women, minorities, and some persons with disabilities.

Unfortunately, the service boom appears to be ending and its demise may signal tough times ahead for persons with disabilities. Service-industry employment expanded 4.5 percent a year in the 1980s, but the rate of increase fell substantially in the last two years (to 3.5 percent a year) and, ominously, the Bureau of Labor Statistics projects increases of about 2.5 percent a year in the 1990s (U.S. Bureau of the Census 1990). Although still large, this growth may not be sufficient to offset projected continuing declines in employment in goods-producing

industry. More important, the projections of increases within services and slight declines in manufacturing preceded the onset of the crisis in the Middle East and so may very well be too optimistic. The rising price of oil may cause a severe slump in the automotive and steel industries, hastening the decline in manufacturing, and the service and retail industries may be reluctant to hire new employees if fears of rapid inflation prove well founded, dampening the growth in these sectors.

The decline in manufacturing, whether accelerated by the situation in the Middle East or not, will hasten the withdrawal of older men from the labor force, and older men with disabilities will be particularly hard hit. In contrast, the end of the service boom will slow the entrance of younger women into the labor force, perhaps decreasing the rate of labor-force participation among younger women with disabilities for the first time in the last two decades.

MONITORING THE EMPLOYMENT PICTURE AMONG PERSONS WITH DISABILITIES

WHAT AND HOW TO MONITOR

These data suggest that the employment picture of the approximately 19.1 million working-aged adults with disabilities has worsened over the past two decades.⁵ The analysis derives from the National Health Interview Survey (NHIS), an annual cross-sectional sample of the non-institutionalized population designed primarily to monitor the health status of the population and its access to health care. The NHIS collects no information on past employment history or current hours of work, and so it provides only a partial snapshot of current employment trends, ignoring the route the individual took to his or her current situation and precluding an analysis of a partial reduction of work time due to disability. In addition to these structural limitations, the public-use tapes of the survey become available at least a year after data collection, so the trends being incompletely monitored are old ones. The National Center for Health Statistics (NCHS—the agency administering the NHIS) does not publish the labor-force data from the survey regularly; instead, their publication depends on the analyses done by individual investigators.

The primary survey designed to monitor labor-force trends is the Current Population Survey (CPS), administered by the Census Bureau

for the Department of Labor's Bureau of Labor Statistics. The CPS collects information on the work status of approximately 60,000 individuals each month. However, the CPS asks its respondents to report their disability status only once annually in its March supplement and these data do not include information on the conditions causing the disability or the duration of the impairment. Moreover, the data from the CPS, when publicly available on computer tapes, may be a year and a half old; the Bureau of Labor Statistics has published the results of the CPS March supplement only twice: in 1983 and 1989 (U.S. Bureau of the Census 1983; 1989).

Thus, any data we have on the labor-force participation of persons with disabilities will be more than a year old (and is likely to be several years old), and will be incomplete insofar as the Health Interview Survey provides poor information on labor-force history and current work status, and the March CPS makes only a cursory attempt to measure health status.

The structural limitations of the NHIS and CPS notwithstanding, these two surveys could provide useful information to monitor the impact of ADA on employment among persons with disability at very little additional cost. The National Center for Health Statistics should be encouraged to publish the results of the NHIS labor-force participation questions in a timely fashion, certainly within a year of the completion of each year's data collection. They should also be encouraged to ask respondents currently working the length of their average work week and the number of weeks worked in the past year, and to ask those no longer in the labor force when and why they left work, as well as the occupation and industry for the time prior to illness of those claiming to be out of the labor force for health reasons. These are all standardized items in labor-force questionnaires, the addition of which would increase the one-hour interview time of NHIS respondents by no more than one or two minutes. However, with these additions and the health-status data already included in the survey, the NHIS would provide a much more systematic view of the impact of disability on the labor force.⁶

Because the CPS is the primary source of labor-market data—one to which the media and other analysts of labor-force trends turn to keep tabs on employment—it should be augmented for use in monitoring the impact of ADA on employment. The employment picture among persons with disabilities would then garner the same attention as that of women and minorities, making the front page of most newspapers

and the network newscasts when released each month. The March supplement to the CPS includes five items that can be used to infer work loss resulting from disability: a basic disability screen, a question about retirement due to disability, one ascribing last year's work status to disability, one ascribing this year's work status to disability, and questions about Medicare and Supplemental Security Income (SSI) coverage if the respondent is under the age of 65. Including these items in the monthly questionnaire in the CPS would add less than two minutes to the basic interview. However, a health screen analogous to the one included in the NHIS could be completed in as little as 30 seconds, and would provide enough information to monitor employment trends among those with and without disabilities on an ongoing basis. Monthly monitoring of employment among persons with disabilities seems warranted, if only because the data from the NHIS and March supplement to the CPS have not received sufficient attention to make the public aware of the worsening labor-force situation of persons with disabilities, whereas the public is aware of the CPS data released monthly by the Bureau of Labor Statistics.⁷

However the employment situation ultimately is monitored, particular attention must be paid to the industries and occupations undergoing rapid expansion and contraction because persons with disabilities have not shared proportionately in the employment gains in expanding sectors of the economy, while bearing a disproportionate share of the retrenchment in contracting ones. The CPS may not be sufficiently large to monitor the employment status of persons with disabilities within individual industries and occupations, perhaps necessitating periodic enlargement of the sample or, at the very least, merging several months worth of data.

The Equal Employment Opportunity Commission collects information periodically from large employers on the hiring of women and minorities within different occupations and industries (U.S. General Accounting Office 1989). This database, although not reflective of the entire labor force, might be expanded to include questions about employment of persons with disabilities.

PAYING FOR THE COSTS OF MONITORING

The ADA places significant responsibility for enforcement of the employment provisions of the law in the hands of the Equal Employment Opportunity Commission (EEOC), a role the EEOC performs for

other civil-rights legislation. Typically, the EEOC carries out its mandate by investigating individual claims of discrimination. The Congressional Budget Office estimates that the EEOC will need about \$15 million a year for these activities as they relate to the ADA (Senate Committee on Labor and Human Resources 1989). However, it is well within EEOC's purview to pursue the goal of enforcement by supporting research on the entire class of persons with disabilities, many of whom may have experienced discrimination without filing a formal claim; the database described above is one way EEOC carries out this mandate. The EEOC thus would appear to be the most appropriate agency to fund the incremental data-collection activities described here. The funds themselves could come from the monies appropriated to the EEOC to investigate individual claims of discrimination, or, to ensure adequate oversight in enforcement, from an additional appropriation.

ASSESSING EMPLOYABILITY IN THE SERVICE ECONOMY

One of the apparent paradoxes surrounding the ADA is that the labor-force participation of persons with disabilities is declining just as the physical basis of work erodes. Manufacturing employment is down, and in more of the manufacturing that remains workers neither supply physical power themselves (production typical of early industrial enterprises) nor run machines that do (production typical of mass-production industry in the post-War period). Instead, manufacturing workers increasingly monitor computer-run production by analyzing digitized versions of the analog production process at some remove from the actual factory floor (Hirschhorn 1984; Zuboff 1988). In this postindustrial manufacturing, and in much of the remainder of the service economy, physical impairment should not preclude work.

The erosion of the physical basis of employment has led many analysts to suggest that declining labor-force participation rates are now due either to the aging of the population, which results in severe disabilities among a greater proportion of the potential work force, or to the Social Security Disability Insurance (SSDI) program, whose generous benefits allow workers to withdraw from work when they have the physical capacity to persevere on the job (see Yelin [1986, 1989] for a review of both literatures). However, both theories have proven easy to

refute. The aging hypothesis holds that more workers are being pushed into the age brackets with the highest risk for disability. But the labor-force participation rate has decreased *among men of all ages with disabilities*, refuting the notion that age creep accounts for the rise in work-disability rates. The hypothesis that SSDI (or other disability-entitlement programs) were responsible for the rise in work-disability rates seemed valid a decade ago when the rates were rising in tandem with increases in the real value of disability benefits. However, in the interim the real value of benefits has been reduced, but work-disability rates continue to climb.⁸

The analysts who believed that the declining significance of brute-force work in the service economy would reduce work-disability rates overlooked the fact that the demand for the labor of older men, the group most heavily represented in the manufacturing sector, would decline with these changes. They also overlooked other impediments to keeping persons with disabilities employed. The increasing physical distances separating work and home are especially taxing to persons with disabilities, many of whom cannot drive. More important, the rhythms of the workaday world are often at odds with the medical conditions causing physical impairment. When many of us envision persons with disabilities, we think about congenital conditions or injuries, both of which are of unvarying intensity. Most persons with disabilities, however, have chronic conditions characterized by periods of flare and remission lasting weeks and months, and with symptoms that vary throughout the day. This variance makes planning work activities difficult. Arthritis is the most common cause of work loss. The person with this condition typically is prone to morning stiffness, which makes getting up and out very difficult. During a flare, the person with arthritis may have to reduce work activities both to garner rest and to visit the doctor. There is now accumulating evidence that individuals with chronic diseases as diverse as cancer, arthritis, and AIDS who can control the pace and scheduling of work activities are less liable to stop working, precisely because they have the capacity to meld their conditions with their jobs (Greenwald et al. 1989; Yelin, Henke, and Epstein 1987; Yelin et al. 1991). In contrast, workers with inflexible working conditions are more likely to drop out of the labor force because they cannot meet the stringent time requirements of work, not because they lack the physical capacity to work.⁹

The ADA places a responsibility on employers to make reasonable accommodations so that persons with disabilities can continue to work.

The research showing that the time dimension of work may be more critical than the actual physical demands of the job in determining the work outcomes of chronic disease has important implications for the enforcement of these reasonable accommodation provisions because it implies that slight changes in work rules may redound to the person with a disability far more than expensive modification of the physical plant or retooling of industrial processes.

The preliminary findings relating discretion over the pace and scheduling of work activities to work-disability rates also suggest several research and enforcement strategies in the wake of the passage of ADA. The research would be designed to help both persons with disabilities and industry assess work capacity in more realistic terms and to provide information to policy makers on the extent to which work disability is due to factors within work, for example, the physical and time requirements of jobs, and to those outside of work, for example, transportation to and from work. The enforcement strategies would use the data from the research to delimit industry's ability to make persons with disabilities bear a disproportionate share of retrenchment in employment. I shall deal with each in turn.

RESEARCH TO ASSIST IN THE IMPLEMENTATION OF THE ADA

Work loss arises from disability when there is a discordance between the demands of a job and the impairment an individual experiences. A job requires lifting, the individual cannot lift; a job requires punctuality, the individual experiences morning stiffness lasting past the scheduled beginning of work. The Department of Labor collects data on the physical demands of work as part of its mandate to update the Dictionary of Occupational Titles. However, no ongoing surveys collect information relating physical impairments to the physical demands of work. (The last survey to do this in a systematic fashion was the 1978 Social Security Administration Survey of Disability and Work.) During the 1970s, the Department of Labor collected information on the time demands of jobs and employees' discretion over work activities through its Quality of Employment Surveys. These data have not been collected since. Moreover, no survey has ever collected information relating impairments to workers' discretion over pace and scheduling of activities. The extant information relating impairments to the physical demands of work is outdated due to the subsequent changes within manufacturing and growth of the service industry, and the growing

recognition that time and pace are more important than physical demands in determining work status suggests that data concerning these parameters be collected for the first time.¹⁰ Likewise, there is no contemporary information on the mode and duration of the commute to work among persons with and without disabilities and, thus, no way we can estimate the extent to which transportation is an impediment to continued employment.

The passage of the ADA may provide a window of opportunity to conduct the kind of systematic research needed to monitor employment among persons with disabilities. In addition to the permanent revisions for the NHIS and CPS that I suggested earlier, we need a one-time special survey to estimate the interactions between impairments and working conditions in the contemporary economy. Although the primary purpose of such a survey would be informational, it could be used by the Equal Opportunity Employment Commission to refine policy guidelines for employment based on the ADA.

Persons with disabilities would use the information from a systematic disability survey to estimate their work prognosis in much the same way they ask their physicians to estimate the probability of adverse medical outcomes, such as death. Working with vocational counselors, they would be able to focus job searches on industries and occupations that accommodate others with impairments much like their own.

Industry could use the results of the survey to provide more accurate information on how their production processes interact with their employees' impairments, with the hope of forestalling the premature withdrawal from jobs in which the fit between job demands and impairments remains a good one. This information could also alert employers to those situations in which minor modifications of the physical environment would allow workers to continue on the job, especially those in which the impairment does not affect the actual work. A flight of stairs is as much an impediment to the word processor with osteoarthritis of the knee as heavy lifting and bending are to the steel worker with the same condition, even though the word processing is unaffected by the arthritis and steel manufacturing is.

In a similar vein, systematic data on the fit between the time demands of jobs and impairments might assist employers in redesigning jobs to suit the needs of their employees with disabilities for flexibility. Let me amplify with two examples. Clerical work within the insurance industry was one of the fastest-growing jobs in the 1980s. Traditionally, clerical workers within insurance companies have had to

maintain very strict schedules even though the work they do (processing claims) could be done any time and, in this day and age, almost anywhere. Because of these strict time requirements, this job has had very high work-disability rates. In contrast, the computer industry—also undergoing rapid expansion—frequently allows very flexible scheduling and, not surprisingly, the work disability rate among their clerical workers has been relatively low.

Sometimes work rules are an integral part of production processes. The automotive assembly line could not operate without a punch clock or the cars would not be made (whether this is the best way to assemble cars is another matter); the retail outlet needs its sales force during its posted hours of operation. All too frequently, however, the work rules bear little relation to what is actually being done and, where this is so, relaxing them might very well lower work disability rates. Systematic data from a special survey could prove useful in pinpointing the obvious discordancies. The President's Committee on Employment of People with Disabilities would appear to be the appropriate agency to distribute such information given its mission to advocate for the employment-related interests of persons with disabilities.

ENFORCEMENT OF THE EQUAL EMPLOYMENT OPPORTUNITY MANDATE OF THE ADA

The labor-force participation data presented above provide ample evidence that persons with disabilities have suffered employment discrimination over the last two decades, with older male workers with disabilities bearing a disproportionate share of the retrenchment in declining industries and occupations and female workers with disabilities not sharing proportionately in the growth sectors.

The ADA vests the Equal Employment Opportunity Commission with the responsibility to write and then to enforce regulations against discrimination in employment. The experience with previous civil-rights legislation suggests that a two-pronged approach is necessary. First, the EEOC can pursue individual claims of discrimination that come before it. However, only a fraction of the hundreds of thousands—perhaps millions—of individuals who will suffer discrimination subsequent to the passage of the ADA will ever file such a claim. Therefore, a second monitoring effort is necessary. The EEOC should seek to establish a statistical basis for discrimination. Augmented NHIS, CPS, and special disability surveys can assist in this

activity, demonstrating, on the one hand, that persons with disabilities suffered a disproportionate amount of displacement from the labor force and, on the other, that individuals with specific impairments do continue to function in jobs with a certain level of physical demand. The passive strategy of waiting for aggrieved individuals to file claims will not suffice. Individuals with disabilities can never know whether their layoffs represent a disproportionate share of the retrenchment in a contracting industry. They cannot amass the statistical evidence to support this sort of claim of discrimination, nor are they likely to be able to prove on a case-by-case basis that they can function at work. Although the adjudication of applications for Social Security Disability benefits proves that defining work capacity is inherently a subjective process, having information on the statistical relations among job demands, physical impairments, and labor-force participation will at the very least suggest those situations in which the discrimination is most egregious.¹¹ Old survey data, based on the manufacturing economy and ignoring the time dimension of work, will not serve this function. The EEOC must have a more contemporary model of work upon which to base its enforcement of ADA's employment provisions.

CONCLUSION

While the evidence for discrimination in employment against persons with disabilities is compelling, it emanates primarily from the testimony of individuals or from data that are old, irregularly collected, and analyzed on an ad hoc basis by researchers outside of government. Our ability to monitor the impact of the ADA on employment requires the collection and timely dissemination of data on the labor-force participation of persons with disabilities. I advocate including disability-screening items in the monthly Current Population Surveys to accomplish this goal. Our ability to improve the job prospects of persons with disabilities, however, requires current data on the interactions among impairments, job demands, and work status, both to indicate how well such persons function at work and to assist efforts to provide an objective basis for determining whether employment status is related to discrimination or actual functional capacity. This kind of data can only be obtained from a special disability survey like those administered on behalf of the Social Security Administration in the 1960s and 1970s.

NOTES

1. P.L. 88-352.
2. Unless specifically noted, the data concerning the labor-force participation of persons with and without disability cited here derive from my analysis of the National Health Interview Surveys (NHIS), 1970 through 1987. A more extensive review of these data appears in Yelin (1989).
3. The data on government workers that I discuss here include *all* government workers—federal, state, and local. It was not possible to separate out federal workers from these data. A caveat, therefore, is in order. While section 504 prohibits discrimination in “programs or activities” receiving federal funds, the question of how broadly to interpret the term “program or activity” has been the subject of extensive consideration. Prior to the Supreme Court’s decision in *Grove City College v. Bell*, 465 U.S. 555 (1984), the term “program or activity” was interpreted broadly. Thus, from 1973 to 1984, if some section of a state or local department received federal funds, the entire department (and all of its workers) were covered under the section 504 requirements. In the 1984 case of *Grove City College*, the Supreme Court ruled that “program or activity” was to be interpreted narrowly. Under that ruling, if a particular section of a department received federal funds, *only* that section was covered by section 504. This ruling was ultimately overturned by Congress in 1988 by enactment of the Civil Rights Restoration Act, P.L. 100-259. Thus, after 1988, a broad range of state and local employees were once again covered by section 504. Although it is possible that *some* state and local government employees are not covered by section 504 (because no federal funds are received by the “program or activity” and there is no comparable state of law), it is improbable that this number would be significant. In addition, for purposes of these data, it is unlikely that state and local governments dramatically changed their policies or practices during the period the *Grove City College v. Bell* decision stood (1984-1988).
4. I use the terms “boom” and “bust” to mean a rise and decline in the proportion of the population employed in the different sectors of the economy. Of course these quantitative changes in the shares of employment have implications for the quality of work and the overall health of the economy. Rather than enter the debate comparing the jobs gained with those lost in such parameters as pay, tenure, and potential for growth or continuing the endless discussion about what the transformation from a manufacturing to a services economy portends in the long term, I am limiting the analysis here to the less contentious issue of the sheer numbers of workers.
5. Because the figure of 43 million persons with disabilities in the United States has been bandied about so much (the ADA itself quotes this figure), I should point out here that the 19.1 million figure I use is from the NHIS and includes only working-aged adults, 18 to 64, with disability defined in terms of activity limitation due to chronic disease, impairment, or injury.
6. The changes noted above represent additions to the recurrent questions in the NHIS. However, the NHIS frequently includes supplemental studies in addition to the questions asked of respondents each year. The NHIS sample could

also be used for a supplemental study in which respondents with and without disabilities were followed longitudinally to study patterns of retrenchment from work and risk factors for work loss following onset of disability. Currently, all we know about the process of withdrawal from work in the presence of illness comes from studies using cross-sectional data to make longitudinal inferences.

7. Likewise, special surveys conducted by the Social Security Administration and Census Bureau, while providing useful information to program administrators and the research community, have not gotten the public's attention. Thus, my emphasis on the monthly CPS.
8. The early econometric studies of the role of entitlement programs in labor-force participation rates attributed almost all of the reduction in older male labor-force participation to the SSDI program. The later studies find only small effect (or none). Interestingly, the later studies use more sophisticated models of the impact of health on work, suggesting that the earlier results were due to improper control for health status. For reviews of these studies, see Wolfe (1984) and Yelin (1986).
9. This discussion is not meant to imply that physical capacity is never an impediment to work. Clearly, there are thousands of individuals whose medical conditions preclude employment. However, the situation in which there is poor concordance between the time requirements of work and chronic illness occurs more often than that in which the brute-force demands of a job are too great.
10. The studies relating discretion over the pace and scheduling of work activities to work disability used small, clinically derived samples or inferred the time characteristics of jobs by matching data from the Quality of Employment Surveys to surveys such as the 1978 Social Security Administration Survey of Disability and Work.
11. Stone (1984) demonstrates how disability determinations are inherently subjective, frustrating attempts to treat them as medically unambiguous decisions.

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ACKNOWLEDGMENTS

Supported by Grant AM-20684 from the National Institute of Arthritis, Musculoskeletal, and Skin Diseases and Research Career Development Award AG-00273 from the National Institute on Aging (to Dr. Yelin). The author gratefully acknowledges the advice of his colleagues, Drs. Patricia P. Katz, Curtis Henke, and Wallace Epstein.