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# Empirical Implications of Title I

Michael Ashley Stein

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*Michael Ashley Stein\**

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## I. THE EMPLOYMENT-COST CONUNDRUM

In the decade since Congress passed the Americans with Disabilities Act (ADA),<sup>1</sup> the practical consequences of Title I have been the subject of surprisingly little research.<sup>2</sup> This lacuna is especially gaping in view of the established field of employment antidiscrimination laws that regularly receive analytical attention.<sup>3</sup> For although the ADA is a comparatively newer provision, the ability to extend research models and enquiries to the sizable number of Americans that Title I purportedly affects<sup>4</sup> warrants greater attention than has to date been the case.

The few empirical studies that have been conducted, however, suggest two apparently incongruent effects. First, the studies indicate that many of the accommodation costs engendered by Title I are generally nonexistent or minimal. In fact, they suggest that accommodations can be cost effective for the providing employers.<sup>5</sup> Second, the overall post-ADA employment rate of workers with disabilities has declined significantly relative to that of

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\* J.D. Harvard, Ph.D. Cambridge University; Assistant Professor, College of William & Mary School of Law. Peter Blanck, John Donohue, Christine Jolls, and Mark Kelman were generous in providing comments, as were the law school faculty members who participated in colloquia at the University of Iowa, Stanford University, and the University of Virginia. I also benefited greatly from presenting this paper as part of the National Institute on Disability Rehabilitation and Research (NIDRR) Summer 2000 Researchers' Symposium. My research was funded through a generous summer stipend provided by the College of William and Mary School of Law.

1. 42 U.S.C. §§ 12101-12113 (1994).

2. This shortfall exists despite intra-disability group encouragement. For example, the primary reason for organizing the NIDRR Summer Researchers' Symposium, see *supra* note \*, was "to increase knowledge of research design and methodology involving workers with disabilities." Peter David Blanck et al., *The Emerging Workforce of Entrepreneurs with Disabilities: Preliminary Study of Entrepreneurship in Iowa*, 85 IOWA LAW REV. 1583 (2000) [hereinafter Blanck et al., *The Emerging Workforce of Entrepreneurs with Disabilities*]. This is a recurring theme among those interested in disability policy. See NAT'L COUNCIL ON DISABILITY, *ACHIEVING INDEPENDENCE: THE CHALLENGE FOR THE 21ST CENTURY—A DECADE OF PROGRESS IN DISABILITY POLICY, SETTING AN AGENDA FOR THE FUTURE* 6 (1996) (calling for more practical research in order to better evaluate future policy objectives).

3. Although the literature is too voluminous to list comprehensively, representative work on the effects of civil rights laws on people of color includes John J. Donohue III & James Heckman, *Continuous Versus Episodic Change: The Impact of Civil Rights Policy on the Economic Status of Blacks*, 29 J. ECON. LIT. 1603 (1991); James J. Heckman & Brook S. Payner, *Determining the Impact of Federal Antidiscrimination Policy on the Economic Status of Blacks: A Study of South Carolina*, 79 AM. ECON. REV. 138, 167-73 (1989); Richard Butler & James J. Heckman, *The Government's Impact on the Labor Market Status of Black Americans: A Critical Review*, in *EQUAL RIGHTS AND INDUSTRIAL RELATIONS* 235 (Leonard J. Hausman et al. eds., 1977).

4. The Current Population Survey's disability-related website, <http://www.census.gov/hhes/www/disability.html>, estimates this gap to include as many as 54 million people. In practical terms, the Census Bureau classifies nearly twenty percent of Americans as having some kind of disability. See CENSUS BUREAU, U.S. DEPT OF COMMERCE, CENSUS BRIEF 97-5, *DISABILITIES AFFECT ONE-FIFTH OF ALL AMERICANS*, available at <http://www.census.gov/prod/3/97pubs/cenbr975.pdf>.

5. These appraisals are addressed *infra* Part II.

workers without disabilities.<sup>6</sup> These seemingly antithetical conclusions beg an important question: If accommodating disabled workers can be economically cost effective for employers, why has an increase in labor market participation by such workers not (yet) occurred?<sup>7</sup>

This essay is part of a continuing research agenda proposing different approaches to the puzzle of why the overall employment rate of working-age individuals with disabilities has not increased since Title I's passage.<sup>8</sup> Part II explicates and critiques studies asserting that employers can accommodate disabled workers inexpensively, and perhaps enjoy economic benefits as a result. Part III presents and evaluates the primary econometric investigations which find that the relative disabled employment rate has declined since the ADA's passage—while wages have remained stable or improved. Both Parts II and III conclude that neither the conclusions reached by these studies, nor my ensuing critiques, are dispositive in the absence of additional empirical evidence.

Lacking categorical evidence, Part IV operates from an interim working assumption that the studies examined in Parts II and III are correct. Consequently, it addresses the implications of each set of findings. Part IV(A) suggests that the accommodation cost studies, which appraise the utility of providing outlays, can be helpful in recalibrating the metric by which the economic efficiency of disabled employees is measured. This analysis will not result in all accommodations being seen as economically net-productive. Considering the impact of these benefits will, however, render a more balanced and appropriate calculus. Part IV(B) explores the attendant policy implications that can be addressed in light of assessments finding that Title I is causing a decline in disabled workers' relative employment levels. Part IV(B) asserts that continuing the status quo, eliminating the ADA, or replacing the statute completely with tax-and-spend subsidies all fail as viable options. Rather, subsidies should supplement the input costs of accommodations exceeding the reach of Title I's undue hard-

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6. This effect is analyzed in further detail *infra* Part III.

7. This question is especially pointed in light of the national unemployment rate having plummeted to low single digit rates. See Yochi J. Dreazen, *Jobless Rate Stays at 4%, But Fed Interest-Rate Rise Is Unlikely*, WALL ST. J., Aug. 7, 2000, at A2.

8. Elsewhere I identify a market failure that prevents certain employers from reaching rational labor market decisions by creating a "taste for discrimination" in which the costs of including people with disabilities in a workforce are perceived as being greater than they really are. See generally Michael Ashley Stein, *Labor Markets, Rationality, and Workers with Disabilities*, 21 BERKELEY J. EMP. & LAB. L. 314 (2000) [hereinafter Stein, *Labor Markets*], available at [http://www.papers.ssrn.com/paper.taf?abstract\\_id=230799](http://www.papers.ssrn.com/paper.taf?abstract_id=230799); Michael Ashley Stein, *Market Failure and ADA Title I*, in AMERICANS WITH DISABILITIES: EXPLORING IMPLICATIONS OF THE LAW FOR INDIVIDUALS AND INSTITUTIONS 193, 194 (Leslie Pickering Francis & Anita Silvers eds., 2000). I expand my argument that the prevailing labor market model may not be the most appropriate metric for assessing Title I's efficacy below in Parts IV(B)-(C). See also Michael Ashley Stein, *Employing People with Disabilities: Some Cautionary Thoughts for a Second-Generation Civil Rights Statute*, in EMPLOYMENT, DISABILITY, AND THE AMERICANS WITH DISABILITIES ACT: ISSUES IN LAW, PUBLIC POLICY, AND RESEARCH 51, 53 (Peter David Blanck ed., 2000) [hereinafter Stein, *Employing People with Disabilities*] (counseling that the ADA may not be able to achieve its mandates in the absence of governmental enforcement similar to that of Title VII).

ship standard. Finally, Part IV(C) suggests that future research assessing post-ADA employment effects can be enriched by exploring models of workforce participation outside the traditionally utilized labor market paradigm. Investigators should examine the influence that extra-legal (or "environmental") factors, such as the availability of health care insurance, have upon employment effects. They should also explore alternative metrics for success, for example the nontraditional employment experiences of entrepreneurs with disabilities.<sup>9</sup>

## II. ACCOMMODATION COST STUDIES

Despite the dearth of research measuring the actual costs of accommodating disabled workers, available evidence indicates that many accommodation costs are recurrently nonexistent, minimal, or even cost effective for the providing employers.

The leading study, an examination of some 500 accommodations made by Sears, Roebuck and Co. from 1978 to 1997, found that the company provided nearly all of the accommodations at minimal cost. From 1978-1992 the average out-of-pocket expense for an accommodation equaled \$121. From 1993-1996 that average dropped to \$45. Overall, 72% of accommodations required no cost, 17% carried an expenditure of less than \$100, 10% cost less than \$500, and 1% required inputs of between \$500-\$1000.<sup>10</sup> The Sears study's results are substantiated by those of the Job Accommodation Network (JAN), which reported to Congress that the typical accommodation cost was \$200.<sup>11</sup> Other appraisals showed similarly moderate outlays.<sup>12</sup> Even a pre-ADA survey concluded that the cost of accommodating disabled workers was equal to that of acclimating nondisabled workers.<sup>13</sup>

Studies also suggest that employers can capture tangible benefits by providing accommodations. One federally funded agency found that for

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9. See generally Blanck et al., *The Emerging Workforce of Entrepreneurs with Disabilities*, *supra* note 2.

10. See PETER DAVID BLANCK, COMMUNICATING THE AMERICANS WITH DISABILITIES ACT, TRANSCENDING COMPLIANCE: 1996 FOLLOW-UP REPORT ON SEARS, ROEBUCK AND CO. 42-43 (Annenberg Washington Program Reports, 1996) [hereinafter BLANCK, COMMUNICATING THE ADA].

11. See President's Committee on the Employment of People with Disabilities, Report to Congress on the Job Accommodation Network (July 26, 1995) (unpublished, on file with the Iowa Law Review).

12. See, e.g., PETER DAVID BLANCK, THE EMERGING ROLE OF THE STAFFING INDUSTRY IN THE EMPLOYMENT OF PERSONS WITH DISABILITIES: A CASE REPORT ON MANPOWER INC. (1998) [hereinafter BLANCK, THE EMERGING ROLE OF THE STAFFING INDUSTRY] (reporting that accommodation costs were "minimal"); Laura Koss-Feder, *Spurred by the Americans with Disabilities Act, More Firms Take on Those Ready, Willing and Able to Work*, TIME MAG., Jan. 25, 1999 (citing James Geletka, Executive Director of the Rehabilitation Engineering and Assistive Technology Society of America for the proposition that most workplace accommodations cost less than \$200); Rita Thomas Noel, *Employing the Disabled: A How and Why Approach*, 44 TRAINING & DEV. J. 26 (1990) (reporting that 70-80% of accommodations cost less than \$500).

13. See INT'L CENTER FOR THE DISABLED, THE ICD SURVEY II: EMPLOYING DISABLED AMERICANS (Louis Harris & Assoc. Comp., 1987).

every dollar spent on accommodation, companies saved \$50, on average, in net benefits. Thus, although more than one half of accommodations cost less than \$500, in two thirds of those cases companies enjoyed net benefits exceeding \$5000.<sup>14</sup> Another survey reported that accommodations reduced employee replacement costs by reducing costly job turnover.<sup>15</sup> Empirical evidence indicates that disabled workers have absenteeism rates equal to or lower than their nondisabled peers.<sup>16</sup> Accordingly, existing quantitative data demonstrate that employers can internalize economic benefits in the form of savings in recruitment, training, and replacement expenses by providing accommodations to their disabled workers.<sup>17</sup>

In addition to these readily calculable benefits, Peter Blanck describes "ripple effects" that emanate from accommodations.<sup>18</sup> These include economic benefits that may be difficult to quantify initially, but which are eventually internalized by employers. Among such desirable consequences are higher productivity,<sup>19</sup> greater dedication,<sup>20</sup> and better identification of qualified candidates for promotion.<sup>21</sup> Employers also enjoy fewer insurance claims and reduced post-injury rehabilitation costs,<sup>22</sup> an improved corpo-

14. See President's Committee on the Employment of People with Disabilities, Report to Congress on the Job Accommodation Network (July 26, 1995) (unpublished, on file with the Iowa Law Review); see also James G. Frierson, *The Legality of Medical Exams and Health Histories of Current Employees Under the Americans with Disabilities Act*, 17 J. REHABILITATION ADMIN. 83, 86 (1993) (describing how one company saved \$4 million, and another \$310,000 annually by providing necessary accommodations).

15. Blanck reported that 60% of disabled workers remained in their jobs, as opposed to 40% of able-bodied ones. Moreover, the cost of each job turnover averaged \$2800. See BLANCK, COMMUNICATING THE ADA, *supra* note 10, at 29.

16. See, e.g., Gretchen Adams-Shollenberger & Thomas E. Mitchell, *A Comparison of Janitorial Workers with Mental Retardation and Their Non-Disabled Peers on Retention and Absenteeism*, J. REHABILITATION, July-Sept. 1996, at 56; Dolores Ondusko, *Comparison of Employees with Disabilities and Able-Bodied Workers in Janitorial Maintenance*, J. APPLIED REHABILITATION COUNSELING, Summer 1991, at 19-24; Rick A. Lester & Donald W. Caudill, *The Handicapped Worker: Seven Myths*, 41 TRAINING & DEV. J., Aug. 1987, at 50-51; J.E. Martin et al., *Work Attendance in Competitive Employment: Comparison Between Employees Who Are Non-Handicapped and Those Who Are Mentally Retarded*, 23 MENTAL RETARDATION 142-47 (1985).

17. This assertion is made with less qualification in Peter David Blanck & Mollie Weighner Marti, *Attitude, Behavior, and the Employment Provisions of the Americans with Disabilities Act*, 42 VILL. L. REV. 345, 378 (1997), and in Peter David Blanck, *The Economics of the Employment Provisions of the Americans with Disabilities Act: Part I—Workplace Accommodations*, 46 DEPAUL L. REV. 887, 902 (1997).

18. See BLANCK, THE EMERGING ROLE OF THE STAFFING INDUSTRY, *supra* note 12, at 29.

19. "Savvy employers have figured out that a can-do attitude for employees with impairments is good for profits and productivity." Patricia M. Owens, *Employee Disabilities Needn't Impair Profits*, WALL ST. J., June 7, 1999, at A22.

20. See, e.g., Stuart Silverstein, *Work & Careers: On the Job with More Help from New Technology, More Disabled Join the Work Force*, L.A. TIMES, Oct. 25, 1998, at C5 (relating EarthLink's vice president as saying, "What you find are employees who probably are more focused and more dedicated to doing quality work.").

21. Thomas W. Hale, Howard V. Hayghe, & John M. McNeil, *Persons with Disabilities: Labor Market Activity, 1994*, MONTHLY LAB. REV., Sept. 1998, at 3 (relating that the disabled are less likely to work in high paying positions relative to nondisabled).

22. See BLANCK, COMMUNICATING THE ADA, *supra* note 10, at 26-27.

rate culture,<sup>23</sup> and more widespread use by nondisabled workers of efficiency-enhancing technologies previously utilized exclusively by their disabled peers.<sup>24</sup>

In addition to these ripple effects, accommodations also result in "positive externalities," which may, in turn, benefit employers, but that are even more difficult to quantify. One such externality is public cost savings, including reduction of disability-related public assistance obligations currently estimated at \$120 billion annually.<sup>25</sup> Although studies show that hiring people with disabilities can lower taxpayers' general burdens<sup>26</sup> and benefit the national economy,<sup>27</sup> specific effects upon individual employers as taxpayers remains unclear.<sup>28</sup>

By offering concrete illustrations of benefits that employers can capture by providing accommodations, the studies described above lend clarity to a subject that commentators have disputed in the legal literature exclusively by conjecture since well before Title I's regulations became fully effective.<sup>29</sup> Thus, the investigations provide a glimpse into the realities of a complex subject that has been critiqued only from a single (albeit traditionally recognized and often valuable) vantage point.<sup>30</sup>

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23. See *id.* at 8.

24. For instance, the nonvisually impaired employees of a large insurance company assimilated voice-recognition technology originally provided as an accommodation. See Heidi M. Berven & Peter David Blanck, *The Economics of the Americans with Disabilities Act Part II: Patents and Innovations in Assistive Technology*, 12 NOTRE DAME J.L. ETHICS & PUB. POL'Y 9, 85-89 (1998) (discussing faults of cost-benefit paradigms in determining whether employers suffer undue hardship and explaining the "ripple effect").

25. See DAVID I. LEVINE, REINVENTING DISABILITY POLICY 1 (Inst. of Indus. Relations, Working Paper No. 65, 1997). One report estimated that for every one million disabled people employed, there would be as much as a \$21.2 billion annual increase in earned income, a \$2.1 billion decrease in means-tested cash income payments, a \$286 million annual decrease in the use of food stamps, a \$1.8 billion decrease in Supplemental Security Income payments, 284,000 fewer people using Medicaid and 166,000 fewer people using Medicare. See *People with Disabilities Show What They Can Do*, HUM. RESOURCES, June 1998, at 144 (citing Rutgers University economist Douglas Kruse).

26. See, e.g., *The JWOD Program: Providing Cost Savings to the Federal Government by Employing People with Disabilities* (Feb. 6, 1998) (listing survey results and reporting that the federal government saved \$1,963,206 over the course of the study by employing 270 people with disabilities) (on file with the Iowa Law Review); *Taxpayer Return Study California Department of Rehabilitation Mental Health Cooperative Programs* (Oct. 1995) (finding that for every disabled person employed, California taxpayers saved an average of \$629 per month in costs) (on file with the Iowa Law Review).

27. See generally Thomas N. Chirakos, *Aggregate Economic Losses from Disability in the United States: A Preliminary Essay*, 67 MILBANK Q. 59 (Supp. 2, pt. 1, 1989).

28. As of this writing, I am unaware of any published research addressing this issue, thus substantiating the assertion made above in the text accompanying *supra* notes 1-4.

29. RICHARD EPSTEIN issued the earliest challenge in *FORBIDDEN GROUNDS: THE CASE AGAINST EMPLOYMENT DISCRIMINATION LAWS* 480-94 (1992).

30. That is not to say that such a vantage point lacks value. Abstract appraisals of the positive and normative effects of legislation are an accepted function within the fields of law and economics and policy analysis, and can provide much insight into effects of social engineering that are frequently difficult to quantify. When empirical evidence is readily discernable, however, it yields greater clarity to abstruse issues.

While the studies discussed above are informative, reliance upon these findings requires a great deal of caution. The conclusions drawn from overall studies of specific corporations, such as Sears or Manpower (as well as narrow cohorts from a variety of corporations by JAN), may not be representative of other enterprises. Corporate cultures and economies differ between establishments. Therefore, results are not likely to be representative if unexamined enterprises are dissimilar in size or economic prowess, or engage in unrelated business activities. Hence, it may be inaccurate to extrapolate very small sample group results from particular enterprises onto corporations in general. The studies do not report the costs of sought-after accommodations that were ultimately not provided, presumably due to expense considerations. Moreover, although the JAN and Manpower studies were conducted post-ADA, the majority of the accommodations reviewed in the Sears study were provided before Title I's enactment.<sup>31</sup> Consequently, the median cost of accommodations, whether in single entities like Sears or presented in the aggregate by JAN, might be meaningfully higher than those reported. Finally, the studies focus on "hard" costs: expenses engendered by altering physical plant, for example by providing visual aides. Such studies do not adequately appraise "soft" costs, including nonphysical plant expenses, such as educating human resource personnel. Because soft cost outlays can be significant, or even predominant, the actual costs of accommodation might be greater than those described by the above analyses.

Ultimately, the accuracy of the few studies assessing the costs of providing accommodations to disabled workers have to be verified, refuted, or further debated through subsequent empirical testing. Until such data become available, however, it is fair and efficacious to give these studies' results some weight when considering the economic efficiency of Title I-mandated accommodations. Part IV(A) discusses the practical implications of according gravity to these studies.

### III. EMPLOYMENT AND WAGE EFFECT STUDIES

Economists Thomas DeLeire of the University of Chicago<sup>32</sup> and Daron Acemoglu and Joshua Angrist of the Massachusetts Institute of Technology<sup>33</sup> conducted two comprehensive empirical studies of the post-ADA employment effects on workers with disabilities. These two studies concurred in finding a relative reduction in the employment rate of dis-

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31. This raises again the issue of voluntary compliance with respect to accommodation costs. Blanck responds to this criticism by asserting that the impetus to noncompulsory accommodation "appears to have more to do with corporate cultures, attitudes, and business strategies than with meeting the ADA's minimal obligations." See Blanck et al., *The Emerging Workforce of Entrepreneurs with Disabilities*, *supra* note 2, at 1634.

32. Thomas DeLeire, *The Wage and Employment Effects of the Americans with Disabilities Act*, HUM. RESOURCES (forthcoming 2000 or 2001).

33. See DARON ACEMOGLU & JOSHUA ANGRIST, CONSEQUENCES OF EMPLOYMENT PROTECTION? THE CASE OF THE AMERICANS WITH DISABILITIES ACT (Nat'l Bureau of Econ. Research Working Paper No. 6670, 1998).



abled workers concurrent with either a neutral or beneficial effect on wages. These studies also employ harmonious frameworks to explain their results.

DeLeire utilized data panels of men aged 18-64 from the Study of Income and Program Participation (SIPP) over the period 1986-1993. DeLeire concluded that the ADA's passage resulted in an average 7.2% decrease in the employment levels of disabled men relative to that of non-disabled men.<sup>34</sup> Over the same time, DeLeire reported no relative change in disabled workers' relative earnings.<sup>35</sup>

Acemoglu and Angrist's results, culled from the 1988-1997 Current Population Study (CPS) data for both men and women aged 21-58, generally corroborate those of DeLeire but provide more nuanced detail. Acemoglu and Angrist found that across the 21-39 age cohort, the relative employment levels of workers with disabilities declined by 10-15% with respect to hours worked per week.<sup>36</sup> For the 40-58 age group, they concluded that there was no effect upon disabled women relative to their nondisabled peers.<sup>37</sup> However, men's employment levels decreased significantly.<sup>38</sup> The relative wage levels of workers with disabilities remained unchanged.<sup>39</sup>

An important article by Christine Jolls supports both studies' empirical findings.<sup>40</sup> Jolls identifies the circumstances under which an accommodation mandate is theoretically likely to reduce a given group's employment level or wages, the conditions under which both are prone to be reduced, and those under which neither is likely to occur. The degree to which anti-discrimination restrictions on employment and wage differentials are apt to bind both accommodated and nonaccommodated groups is pivotal to Jolls's model.<sup>41</sup> Within the context of disabled workers, Jolls posits that restrictions on employment differentials are unlikely to be binding, while restrictions on wage differentials are likely to bind. Thus, Jolls's model predicts that Title I's reasonable accommodation mandates will reduce the relative employment rate of workers with disabilities while either increasing their wage levels or leaving them unchanged.<sup>42</sup>

As with the accommodation cost studies, DeLeire's and Acemoglu and Angrist's findings offer important insights into the practical effects of a statute that has not been examined adequately for its pragmatic implications. Jolls's theoretical framework bolsters these findings. Nevertheless, the accuracy of the post-ADA employment and wage effect studies can be challenged for a number of reasons.<sup>43</sup>

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34. DeLeire, *supra* note 32, at 12.

35. *See id.*

36. *See* ACEMOGLU & ANGRIST, *supra* note 33, at tbl.2.

37. *See id.* at 2.

38. *See id.* at 17.

39. *Id.* at 12.

40. *See* Christine Jolls, *Accommodation Mandates*, 53 STAN. L. REV. (forthcoming 2001), at [http://papers.ssrn.com/paper.taf?abstract\\_id=230148](http://papers.ssrn.com/paper.taf?abstract_id=230148) (emphasizing the economic parallels between accommodation mandates and antidiscrimination law).

41. *See id.* at Part I.

42. *See id.* at Part II.

43. A thorough technical questioning is put forward in Susan Schwochau & Peter David

Four arguments initially suggest that the empirical studies may underestimate Title I's impact. Composite Census data indicates a modest rise in the overall disabled employment rate during the 1991-1994 period.<sup>44</sup> That is overshadowed, however, by an elevation in the employment rate of the comparable nondisabled cohort.<sup>45</sup> Moreover, the conclusions presented may be precipitate because Title I's regulations did not become fully effective for employers of fifteen or more workers until July 1994.<sup>46</sup> Alternatively, the general downturn in the U.S. economy in the early 1990s might account for the hiring discrepancy.<sup>47</sup> Finally, other factors exogenous to the statute, such as the absence of job training programs and incentives for those with disabilities comparable to those directed at other groups historically dependent on public assistance, advance plausible alternate explanations for the conclusions reached.<sup>48</sup>

The empirical findings also can be contested based on the authors' technique for appraising the scope of the "disabled" cohort. Criticisms similarly arise from the implications they placed on that type of classification for the purposes of measurement.<sup>49</sup> Both studies rely upon data sets gathered from individual responses to the question of whether a respondent has "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."<sup>50</sup> Utilizing this question to garner a cohort raises several concerns. The first considers whether relatively more people self-identified as disabled after Congress passed the statute, resulting in a concurrent decrease of relative em-

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Blanck, *The Economics of the Americans with Disabilities Act, Part III: Does the ADA Disable the Disabled?*, 21 BERKELEY J. EMP. & LAB. L. 271 (2000).

44. The Census reported that the general employment rate of disabled individuals aged sixteen to sixty-four improved 0.3%, rising from 52.0% in 1991 to 52.3% in 1994. See Current Population Survey, *supra* note 4, at 2.

45. The number of employed people without disabilities increased 1.6%, from 80.5% in 1991 to 82.1% in 1994. *Id.* See also Stein, *Employing People with Disabilities*, *supra* note 8, at 52.

46. See 42 U.S.C. § 12111(5)(A) (1994) (providing that the subchapter becomes effective July 26, 1992). Compounding this timeframe selection concern is Acemoglu and Angrist's study of the comparative change in disabled employment between small- and medium-sized firms at a time when many of the former were not bound by the law. See ACEMOGLU & ANGRIST, *supra* note 33, at 21 (noting that small firms may not be bound by the provisions of Title I even today).

47. Acknowledging this possibility, DeLeire found the economy to be a mitigating—but unconvincing—factor. See DeLeire, *supra* note 32, at 13 (noting that nationwide employment declines may have had a mitigating effect on the hiring discrepancy). Acemoglu and Angrist do not address the issue.

48. The employment and wage studies acknowledge the possible effects of benefits policies but fail to address the attendant question of incentives to leave public assistance. The neglected relationship between environmental factors and work policy incentives is elaborated upon *infra* Part IV(C).

49. For examples of authors doing this see ALBERTO MARTINI, WHY ESTIMATES OF THE NUMBER OF PERSONS WITH DISABILITIES WHO WANT TO WORK DIVERGE SO WIDELY (Mathematica Policy Research Paper No. 7984-001, 1991); Saad Z. Nagi, *The Concept and Measurement of Disability*, in DISABILITY POLICIES AND GOVERNMENT PROGRAMS 1 (Edward D. Berkowitz ed., 1979).

50. ACEMOGLU & ANGRIST, *supra* note 33, at 9.

ployment levels.<sup>51</sup> Alternatively, those who self-identify as disabled may not necessarily fit within definitions expressed in recent Supreme Court decisions.<sup>52</sup> On a deeper level, utilizing composite cohorts that fail to account for type or severity of disability raises issues about whether these empirical studies analyzed the most appropriate group of people with disabilities.<sup>53</sup> Self-identified cohort data in the aggregate does not address valid concerns about the existence of "cream-skimming" (a practice in which employers hire workers with minimal disabilities),<sup>54</sup> or the possibility that some employers may hire only those disabled individuals who require the least expensive accommodations.<sup>55</sup> Because they lack nuance regarding disability characteristics, these data sets also do not address the possibility that, as a result of either irrationality or calculated cost-savings, employers resist bringing unemployed workers with existing disabilities into their labor forces.<sup>56</sup>

The accuracy of the two post-ADA employment and wage effect studies will only become clear after further empirical testing. In the interim, however, it is expedient to defer to these studies. Nonetheless, the results raise policy concerns of what response, if any, society should make to an apparently ineffectual antidiscrimination law. Part IV(B) addresses this question.

#### IV. IMPLICATIONS

Parts II and III concluded that, in the absence of additional determining empirical evidence, neither the conclusions reached by the accommodation cost and employment and wage effects studies, nor their ensuing critiques, can be viewed as conclusive. Accordingly, Parts IV(A)-(B) operate from a working assumption that both sets of studies are correct—or at least illustrative—when assessing the implications for each set of findings. Moving away from the traditional labor market paradigm, Part IV(C) offers a précis for future empirical research utilizing alternative models to assess post-ADA employment effects upon workers with disabilities.

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51. Acemoglu and Angrist concede this possibility, but then account for it by correlating 1993 and 1994 self-identification data. See *id.* at 12-13. Since both CPS panels are post-ADA, this seems to beg the point.

52. For example, the contact-lens-wearing twins not held to be disabled in *Sutton v. United Air Lines*, 527 U.S. 471 (1999), might self-identify as disabled, while the person with asymptomatic HIV found to be disabled in *Bragdon v. Abbott*, 524 U.S. 624 (1998), might not.

53. The further implications of selecting research paradigms are addressed *infra* Part IV(C).

54. See generally Richard V. Burkhauser et al., *How People with Disabilities Fare When Public Policies Change*, 12 J. POL'Y ANALYSIS & MGMT. 251 (1993).

55. See generally Thomas N. Chirikos, *Will the Costs of Accommodating Workers with Disabilities Remain Low?* 17 BEHAV. SCI. & L. 93 (1999); Thomas N. Chirikos, *The Economics of Employment*, 69 MILBANK Q. 150 (1991).

56. The argument is that the actual or perceived cost of accommodating existing workers with disabilities acts as a deterrent against hiring new employees with disabilities. See Stein, *Labor Markets*, *supra* note 8.

## A. IMPLICATIONS FROM ACCOMMODATION COST STUDIES

Accepting the accommodation cost studies as accurate—or, at a minimum, illuminating—they afford a new template by which to assess the relative economic efficiency of providing workplace accommodations to employees with disabilities.<sup>57</sup> Current economically based legal analyses of Title I, as expressed by law and economics commentators, begin from the assumption that disabled workers cost more to employ than their nondisabled counterparts. This postulate derives from the neoclassical economic labor market model's tautological premise that rational decision-makers will always make the most cost-effective, efficient choices. Under this theory, workers with disabilities must be more expensive than those without disabilities because otherwise rational employers would have hired and retained those workers. Specifically, the paradigm posits that, in the context of a rational labor market, employers hire workers with the greatest net productivity. This utility is calculated by subtracting total labor cost from total production benefit. Because employers with rational self-interest have logically chosen employees without disabilities, it stands to reason that disabled workers require costly inputs in the form of accommodation costs. Underlying this postulate are several suppositions. Employees with disabilities are naturally less productive than their counterparts without disabilities. Moreover, disabled workers require accommodations which are inherently costly.<sup>58</sup> Because these factors work together to make the hiring of a worker with disabilities cost-ineffective, the intrinsic costs of employing disabled workers acts as a deterrent to their inclusion in the labor market, especially at entry. Thus, Title I is inexorably doomed.<sup>59</sup>

The prevailing mode of economic analysis is incomplete because it only considers internalized costs associated with workplace accommodations. By contrast, a properly balanced analysis of Title I should take into account positive benefits flowing from disabled employment, both those directly internalized and those arising through externalities. As set forth in the accommodation cost studies, these benefits can involve increased productivity, lower absenteeism rates, and fewer training and replacement costs. Weighting this type of data—as well as future studies that include equivalent soft costs—would properly recalibrate the metric by which the economic efficiency of workers with disabilities is reckoned. Considering the impact of these and similar benefits (and costs) will not show all accommodations to be net-productive. However, it will render a more balanced and appropriate calculus.<sup>60</sup>

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57. Unless otherwise indicated, these assertions appear in Stein, *Labor Markets*, *supra* note 8.

58. *Id.* In FORBIDDEN GROUNDS, *supra* note 29, at 480-94, Richard Epstein asserts that the "awkward" and "unpleasant" reactions of coworkers and customers to employees with disabilities extracts yet a further cost.

59. See generally Stein, *Labor Markets*, *supra* note 8.

60. *Id.*

*B. IMPLICATIONS FROM EMPLOYMENT AND WAGE EFFECT STUDIES*

Accepting the accuracy of the employment and wage effect findings compels an exploration of the policy implications of what the appropriate social response, if any, should be to an ostensibly ineffectual antidiscrimination law.<sup>61</sup> In a provocative book, Mark Kelman discusses the potential avenues through which societies can respond to historical inequities.<sup>62</sup> Extrapolating Kelman's *ex ante* framework to the existing antidiscrimination prohibition, the available options are: (a) inaction (in this case, repealing existing legislation and returning the labor market to its previous status quo condition), (b) regulation (here, continuing with existing antidiscrimination legislation in unaltered form), or (c) tax-and-spend programs (i.e., initiating subsidy programs in lieu of present regulation).<sup>63</sup> Each of these options raises an array of difficulties.<sup>64</sup>

A return to an unregulated (or "natural") market equilibrium, as Richard Epstein (rather than Kelman) suggests,<sup>65</sup> would only sanction and perpetuate the irrational biases the ADA was designed to correct. This is true for a number of reasons. First, labor markets have never been demonstrated, either empirically or anecdotally, to have acted rationally with regard to nonmajority group members. Hence, no evidence supports Epstein's notion that eliminating an antidiscrimination norm will yield greater rationality to the employment sphere. Second, labor markets do not function nearly as well as other markets, such as capital markets, where information is freely disseminated, as well as systemically disclosed, through governmentally enforced regulations.<sup>66</sup> This is particularly certain with regard to a market failure in which the costs of including people with dis-

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61. The arguments that follow are drawn from a work in progress: Michael Ashley Stein, *Title I as Antidiscrimination* (on file with author). Contrary to popular perspective, the article asserts that the ADA's function as an antidiscrimination law is consistent with existing regulations (such as Title VII), the statutes differing only in the magnitude of their associated input costs. In support of this assertion, I offer economic, prudential, and sociological justifications for why it is appropriate to pass accommodations expenses onto employers through Title I's mandates rather than spreading these costs across the general tax base by enacting tax-and-spend provisions.

62. See MARK KELMAN, *STRATEGY OR PRINCIPLE? THE CHOICE BETWEEN REGULATION AND TAXATION* 81-94 (1999) [hereinafter KELMAN, *STRATEGY OR PRINCIPLE?*].

63. See *id.* at 81-94. Kelman also discusses the possibility of exacting user fees from individuals who receive certain services, for example from those who utilize the national parks, to preserve the availability of these services for nonusers. Within the ADA context, such a scheme would require disabled workers who benefited as the result of subsidies paid to their employers to pay a tax on those subsidies to support future recipients. Kelman does not address this last option, probably because these subsidies do not exist. Finally, Kelman remains agnostic as between regulation and tax-and-spend programs.

64. Not featured in Kelman's analysis, and well beyond the scope of this essay, are the countless possible legislative emendations of Title I and their ramifications.

65. Epstein advocates repeal of the ADA, as well as all other antidiscrimination legislation. See EPSTEIN, *supra* note 29, *passim*.

66. John Donohue makes this point nicely in *Employment Discrimination Law in Perspective: Three Concepts of Equality*, 92 MICH. L. REV. 2583 (1994).

abilities in a workforce are perceived as being greater than they really are.<sup>67</sup> Third, applying the neoclassical economic model conceivably would compel disabled workers to underbid the value of their services in order to subsidize workplace accommodations, whether of a hard or soft variety.<sup>68</sup> As a result, the disabled would be discouraged from investing in their own human capital and be further segregated from mainstream society.<sup>69</sup> In sum, eliminating the ADA would only promote irrationalities that already exist in the employment decisionmaking process.

Staying the present course without further action could engender two propitious effects described in the context of other civil rights legislation. It might, as Lauren Edelman argues, create an environment that institutionalizes compliance through gradual ritualization.<sup>70</sup> Alternatively, it might, as John Donohue avers, precipitate the speed by which social exclusions are eventually (or conceivably) remedied.<sup>71</sup> Nevertheless, the disabled face unique civil rights chronology. As a group, they were legally empowered prior to the emergence of a general social consciousness recognizing why such empowerment was needed.<sup>72</sup> Therefore, it is arguable whether legislation can be efficacious in the absence of exogenous factors, such as rigorous governmental enforcement.<sup>73</sup>

Shifting from an antidiscrimination norm to one of strictly tax-and-spend subsidies has three deleterious effects. First, reliance on subsidies would reinforce existing stereotypes about the disabled by augmenting the notion that providing them opportunities is a matter of charity (the "medical" model) rather than one of equality (the "civil rights" or "minority

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67. See generally Stein, *Labor Markets*, *supra* note 8 (assessing the argument about the inefficiency of employing workers with disabilities); cf. Daniel R. Fischel, *Labor Markets and Labor Law Compared with Capital Markets and Corporate Law*, 51 U. CHI. L. REV. 1061 (1984) (explaining some differences between labor and corporate law, and between labor and capital records). Of note is a Yale economist's recent book asserting that the stock market, where vigorous trading of securities should yield objective values, is acting in an illogical manner. See ROBERT J. SHILLER, *IRRATIONAL EXUBERANCE* (2000). Shiller's book supports my general premise: If the securities market can badly misprice its own commodities, then surely mistakes can be made about the value of selected workers in the far less perfect labor market.

68. I add the qualification because, although the neoclassical labor market model posits this occurrence, no evidence supports its existence during the pre-ADA period or otherwise. See generally Stein, *Labor Markets*, *supra* note 8.

69. See *id.*

70. See Lauren B. Edelman, *Legal Ambiguity and Symbolic Structure—Organizational Medication of Civil Rights Law*, 97 AM. J. SOC. 1531, 1545 (1992) (arguing that organizations create affirmative action structures to secure legitimacy and reduce the risk of suit).

71. See generally John J. Donohue III, *Prohibiting Sex Discrimination in the Workplace: An Economic Perspective*, 56 U. CHI. L. REV. 1337 (1989); John J. Donohue III, *Is Title VII Efficient?*, 134 U. PA. L. REV. 1411 (1986).

72. See generally Michael Ashley Stein, *From Crippled to Disabled: The Legal Empowerment of Americans With Disabilities*, 43 EMORY L.J. 245 (1994) (contrasting the national passion fueling the civil rights statutes with the lack of such sentiment surrounding the enactment of the ADA).

73. See generally Stein, *Employing People with Disabilities*, *supra* note 8 (drawing parallels to the advancement of African-Americans and the literature which demonstrates that federal enforcement of Title VII accounted for their improvement).

group" model).<sup>74</sup> Second, funding initiatives exclusively through subsidies also raises prudential and political questions about the validity of treating the disabled in a manner preferable to other historically disempowered groups, for instance the socio-economically disadvantaged.<sup>75</sup> Third, utilizing regulation instead of tax-and-spend subsidies can be more efficient. While subsidies can balance out only existing market inefficiencies, regulations can also preclude those inefficient practices from repeating.<sup>76</sup>

A preferable option to the three extrapolated from Kelman's framework would use regulation in conjunction with subsidies to target workers with disabilities who require accommodations beyond the reach of Title I's undue hardship standard. Providing for extra-reasonable accommodations could overcome existing market inequities borne by the most stigmatized among the disabled. Such provisions also enculturate employers—and through the workplace, society at large—about other members of a socially marginalized group. Although not without potential difficulties,<sup>77</sup> this alternative is also preferable because it reaps the benefits of tax-and-spend subsidies while retaining the civil rights model dynamic of existing regulations.

### C. IMPLICATIONS FOR FUTURE RESEARCH

Future research assessing post-ADA employment effects on workers with disabilities would benefit from examining aspects of employment policy beyond the traditional labor market paradigm. These considerations include the influence of external factors on the ADA's efficacy, as well as the

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74. See generally RICHARD K. SCOTCH, FROM GOOD WILL TO CIVIL RIGHTS: TRANSFORMING FEDERAL DISABILITY POLICY 111-16 (1984) (describing the shift in federal policy dynamics from charitable benefits to equal rights); Jonathan C. Drimmer, *Cripples, Overcomers, and Civil Rights: Tracing the Evolution of Federal Legislation and Social Policy for People with Disabilities*, 40 UCLA L. REV. 1341 (1993) (discussing how the "civil rights" model focuses on the social barriers faced by disabled people). For a cross-historical perspective on public attitudes towards Americans with disabilities, see generally Peter David Blanck, *Civil War Pensions, Civil Rights, and the Americans with Disabilities Act: Empirical Study (1862-1907, 1990-2000)* 62 OHIO ST. L.J. (forthcoming 2001); Peter David Blanck & Michael Millender, *Before Disability Civil Rights: Civil War Pensions and the Politics of Disability in America*, 52 ALA. L. REV. (forthcoming 2000).

75. See generally KELMAN, STRATEGY OR PRINCIPLE?, *supra* note 62. This question receives detailed treatment in MARK KELMAN & GILLIAN LESTER, JUMPING THE QUEUE (1997). Although I do not agree with Kelman's position, responding to his arguments is beyond the scope of this essay.

76. Cf. ALBERTO MARTINI & SHARON ARNOLD, PROGRAMS PROVIDING SUBSIDIZED EMPLOYMENT TO DISADVANTAGED WORKERS: A REVIEW OF THEIR EFFECTIVENESS (Mathematica Pol'y Research Paper No. 7725-400, 1990) (reporting findings that programs subsidizing disabled workers are inefficacious).

77. For instance, workers with disabilities and their potential employers could contrive to depict reasonable accommodations as extra-reasonable, thus shifting costs to the state that employers would otherwise bear. Cf. Stewart J. Schwab & Steven L. Willborn, *Reasonable Accommodation of Workplace Disabilities* 60-62 (March 2000), available at [http://www.people.virginia.edu/~jhw3q/ADA\\_Conference/schwab\\_and\\_willborn.pdf](http://www.people.virginia.edu/~jhw3q/ADA_Conference/schwab_and_willborn.pdf) (suggesting that employees with disabilities can force employers to bear reasonable accommodation costs they are not otherwise obligated to pay under the ADA by agreeing to pay extra-reasonable costs themselves).

use of alternative measures by which to gauge Title I's success.

### 1. Environmental Factors

Legal, political, and economic examinations of post-ADA employment effects upon disabled workers generally fail to appreciate the connection between increased labor market participation and environmental factors exogenous to the statute. These latter considerations include the availability of health care, accessibility of public transportation, existence of job training programs, the extent to which governmental agencies are committed to enforcing antidiscrimination provisions, and the consequences of employer attitudes and public opinion toward people with disabilities.

This shortcoming is particularly noteworthy in the legal literature where the ADA's significance almost wholly overshadows other factors. For example, although Jolls makes an innovative contribution to existing literature,<sup>78</sup> the degree to which antidiscrimination restrictions on employment and wage differentials are apt to bind both accommodated and non-accommodated groups is crucial to her model.<sup>79</sup> This is an entirely valid point of departure, and contributions to legal analysis that build on Jolls's work should be encouraged. Nevertheless, it does not sufficiently account for factors beyond the realm of law.<sup>80</sup>

By the same token, national policymakers have, until recently, overlooked the correlation between environmental factors and labor market participation. This is so despite the ADA's legislative findings that report in detail on the systematic exclusion of disabled people from the workplace—as well as society at large—and express Congress's intention to bring about their full participation.<sup>81</sup> Nevertheless, it has only been the last few years that have seen policy makers acknowledge the role of environmental factors in fostering integration. In 1998, eight years after the ADA's passage, the Presidential Task Force on Employment of Adults with Disabilities recognized the importance of environmental factors and exhorted the President to develop responsive policy initiatives.<sup>82</sup> A 1999 Department of Labor report encouraged greater dialogue on the issue of extra-legal ways to promote greater labor market participation among disabled workers.<sup>83</sup> Later that year Congress passed the Ticket to Work and Work Incentives Im-

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78. The existing literature assumes the binding character of antidiscrimination regulations, and fails to disaggregate the effects of accommodation mandates between accommodated and nonaccommodated groups. See Jolls, *supra* note 40; text accompanying *supra* notes 40-43.

79. See *id.* at Part I (proposing that existing models describing economic effects of accommodation mandates fail to consider simultaneous effects on both groups).

80. See *id.* at Part II (proposing that issues such as workers' gender be considered).

81. See ADA, Findings and Purposes, 42 U.S.C. § 12101 (1994).

82. See Report of the Presidential Task Force on Employment of Adults with Disabilities, Re-Charting the Course (1998), [http://www.dol.gov/dol/\\_sec/public/programs/ptfead/rechart/sat5PTFEADfinalwp.htm](http://www.dol.gov/dol/_sec/public/programs/ptfead/rechart/sat5PTFEADfinalwp.htm).

83. The full text of the report is available online. DEP'T OF LABOR, FUTUREWORK: TRENDS AND CHALLENGES FOR THE 21<sup>ST</sup> CENTURY, <http://www.dol.gov/dol/asp/public/futurework/report.htm>.



provement Act, which extended the length of time that people with disabilities receiving public assistance could continue to receive health care coverage after obtaining gainful employment.<sup>84</sup> Coinciding with the tenth anniversary of the ADA, on July 26, 2000, the Clinton Administration announced a series of policy initiatives intended to allow people with disabilities currently receiving Social Security disability-related benefits to earn more income without losing cash benefits.<sup>85</sup>

Two notable exceptions to the general neglect of extra-legal influences upon post-ADA employment effects are the respected work of economists Marjorie Baldwin and Richard Burkhauser. Baldwin and her colleagues conducted quantitative studies<sup>86</sup> into the existence and effects of employer prejudice upon the wage and employment levels of disabled Americans. These studies revealed that in 1990, men with disabilities lost income amounting to \$11 billion dollars. Most of these losses were attributable to employer prejudice and were distributed unevenly among different types of disabilities.<sup>87</sup> Baldwin asserts that Title I is unlikely to bring about a substantial increase in disabled workers' employment rates because the ADA does not adequately take into account the influence of prejudice.<sup>88</sup> Burkhauser criticized the ADA's lack of conjoined work initiatives by contrasting various European policies directed toward "transferring" people with dis-

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84. Section 202(a), for example, extends Medicare coverage for SSDI recipients returning to work to six and a half years. See Ticket to Work and Work Incentives Improvement Act, Pub. L. 106-170, 113 Stat. 1860 (1999).

85. Full details of the increase in the allowable substantial gainful activity level (SGA) under Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) are set forth in a White House press release. See Press Release, White House, Clinton-Gore Administration Announces New Action Promoting Home and Community Based Services and Housing Options for People with Disabilities (July 25, 2000), <http://www.pub.whitehouse.gov/uri-res/12R?urn:pd:oma.eop.gov.us/2000/7/25/10.text.1>. Further information on SGA and trial work period changes are available through the Social Security Administration's website at <http://www.ssa.gov/pressoffice/newsga.htm>.

Ironically, just as American policymakers have begun to examine the type of supplemental work initiatives utilized by certain European countries, the European Disability Forum is lobbying the European Union to promulgate an antidiscrimination employment provision modelled after Title I. As proposed, this provision would operate in addition to whatever tax-and-spend subsidies the fifteen countries of the Union individually furnish. The Forum's website can be accessed in English at <http://www.edf-feph.org/en/mdataen.html>.

86. By contrast, and worth noting, are the qualitative writings on this issue by Harlan Hahn, for example *Antidiscrimination Laws and Social Research on Disability: The Minority Group Perspective*, 14 BEHAV. SCI. & L. 41 (1996) (emphasizing the influence of aesthetic anxiety in erecting attitudinal barriers to disabled integration).

87. See Marjorie L. Baldwin & William G. Johnson, *Labor Market Discrimination Against Men with Disabilities in the Year of the ADA*, 66 SO. ECON. J. 548 (2000) [hereinafter Baldwin & Johnson, *Labor Market Discrimination Against Men with Disabilities in the Year of the ADA*]; Marjorie L. Baldwin & William G. Johnson, *Labor Market Discrimination Against Men with Disabilities*, 29 HUM. RESOURCES 1 (1994) (comparing economic losses of disabled men between the years 1972 and 1984); Marjorie L. Baldwin et al., *Gender Differences in Wage Losses from Impairments: Estimates from the Survey of Income and Program Participation*, 29 HUM. RESOURCES 865 (1994) (measuring gender-based wage effects).

88. See Marjorie L. Baldwin, *Can the ADA Achieve its Employment Goals?*, 549 ANNALS AM. ACAD. POL. & SOC. SCI. 37 (1997).

abilities from social welfare networks into the workforce.<sup>89</sup> Burkhauser points out that the success of these initiatives correlates directly to the degree that any given national policy provides incentives or harbors expectations about disabled individuals' workplace participation.<sup>90</sup>

Although both Burkhauser's and Baldwin's work is laudable, their findings underscore the need for greater qualitative and quantitative study into how environmental factors effect levels of participation by disabled people in the workplace. Much research needs to be done toward understanding the extent and/or degree of disincentives that keep people with disabilities from the workplace. Catalysts to encourage the disabled's labor market participation should also be explored. Delving into factors exogenous to the law will provide a richer and more complete knowledge base from which to develop policy initiatives.

## 2. Alternative Metrics

Exploring alternative measures by which to gauge Title I's success can also enhance our understanding of the post-ADA employment experiences of workers with disabilities. Other metrics could include research into employment effects upon individuals with particular types of disabilities and/or those employed outside the traditional labor market.

The currently utilized gauge directly links the ADA's efficacy to aggregate employment rate levels. Thus, it lacks sufficient nuance to yield more than a cursory (albeit serviceable) understanding.<sup>91</sup> Accordingly, the overall post-ADA employment rate for people with disabilities, as reported in the employment and wage effect studies, paints a universally dismal picture.<sup>92</sup> Accordingly, it should provoke concern and examination.<sup>93</sup> At the same time, however, SIPP data indicates an increase in the overall employment level of individuals with "severe" disabilities from 23.2% in 1991 to 26.1% in 1994.<sup>94</sup> If we believe the sociological<sup>95</sup> or empirical<sup>96</sup> studies that corre-

89. See, e.g., Richard V. Burkhauser, *Post-ADA: Are People with Disabilities Expected to Work?*, 549 ANNALS AM. ACAD. POL. & SOC. SCI. 71 (1997); Richard V. Burkhauser & Petri Hirvonen, *United States Disability Policy in a Time of Economic Crises: A Comparison with Sweden and the Federal Republic of Germany*, 67 MILBANK Q. 166 (Supp. 2, pt. 1, 1989).

90. See generally Burkhauser, *supra* note 89; Burkhauser & Hirvonen, *supra* note 89.

91. A recent paper by a Census Bureau member corroborates this point. See John M. McNeil, *Employment, Earnings, and Disability* (July 3, 2000), available at <http://www.census.gov/hhes/www/disable/emperndis.pdf>. See also Baldwin & Johnson, *Labor Market Discrimination Against Men with Disabilities in the Year of the ADA*, *supra* note 87 (asserting that the debate preceding the ADA's enactment was not based upon empirical estimates that could be subsequently used to measure future performance).

92. Discussed *supra* Part III. For a less bleak picture, see Schwochau & Blanck, *supra* note 43; Peter David Blanck, *Studying Disability, Employment Policy and the ADA*, in AMERICANS WITH DISABILITIES: EXPLORING IMPLICATIONS OF THE LAW FOR INDIVIDUALS AND INSTITUTIONS, *supra* note 8, at 209.

93. See generally Stein, *Employing People with Disabilities*, *supra* note 8.

94. Compare CENSUS BUREAU, U.S. DEP'T OF COM., P70-61, CURRENT POPULATION REPORT 3 fig.3 (1997), with CENSUS BUREAU, U.S. DEP'T OF COM., P70-33, CURRENT POPULATION REPORT 12 fig.6 (1993).

95. See, e.g., Harlan Hahn, *Advertising the Acceptably Employable Image: Disability and Capi-*

late severity of disability inversely to likelihood of employment, this rise translates into an increase of 800,000 of the most difficult to employ individuals in the workforce.<sup>97</sup> Tracking the workplace experiences of severely disabled individuals, either longitudinally or periodically, could yield knowledge as to why their employment gains are more favorable than those of people with disabilities in the aggregate. Further quantitative research might, for example, shed light on whether or how type of disability,<sup>98</sup> education,<sup>99</sup> race,<sup>100</sup> and technological facility<sup>101</sup> affect labor market participation rates. At the same time, in-depth qualitative study could provide information about the types of corporate cultures most conducive to hiring or retaining employees with disabilities,<sup>102</sup> as well as the decisionmaking process disabled workers engage in when determining whether to enter or return to the workplace.<sup>103</sup> Examination of this cohort could also build upon

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*talism*, 15 POL'Y STUD. J. 551 (1987).

96. See, e.g., Pamela Loprest et al., *Gender, Disabilities, and Employment in the Health and Retirement Survey*, 30 HUM. RESOURCES S293 (1995).

97. See Current Population Survey, *supra* note 4.

98. See generally Walter Y. Oi, *Disability and a Workfare-Welfare Dilemma*, in DISABILITY AND WORK: INCENTIVES, RIGHTS, AND OPPORTUNITIES 31 (Carolyn L. Weaver ed., 1991) (corroborating type and severity of functional limitation to likelihood of gainful employment). For another challenge to Oi's inverse scale, which has become paradigmatic in much of the rehabilitation literature, see DAVID S. SALKEVER & MARISA E. DOMINO, WITHIN GROUP "STRUCTURAL" TESTS OF LABOR-MARKET DISCRIMINATION: A STUDY OF PERSONS WITH SERIOUS DISABILITIES (Nat'l Bureau of Econ. Research Working Paper No. 5931, 1997) (positing from a national sample of adults with "serious" disabilities a direct correlation between severity and probability of employment).

99. See generally Wallace Hendricks & Emir Broadbent, *Labor Market Outcomes for Persons with Long Term Disabilities and College Outcomes*, INDUS. REL. (forthcoming publication, on file with author) (finding mixed correlative results in light of an absence of data regarding individual productivity and the effects of prejudice). See also 1998 National Organization on Disability/Harris Survey of Americans with Disabilities, available at <http://www.nod.org/pressurvey.html> (reporting that in 1986 39% of the disabled polled had not completed high school, as compared with 20% in 1998).

100. One study of physically disabled women, for example, found that only 25% of black women with disabilities were employed as compared to 44% of white women, 57% of black men, and 77% of white men with disabilities. See William John Hanna & Elizabeth Rogovsky, *On the Situation of African-American Women with Physical Disabilities*, J. APPLIED REHAB. COUNSELING, Winter 1992, at 39 (special issue). See generally JOHN BOUND ET AL., RACE DIFFERENCES IN LABOR FORCE ATTACHMENT AND DISABILITY STATUS (Nat'l Bureau of Econ. Research Working Paper No. 5536, 1996) (correlating effects of disability and racial status to labor market participation).

101. See generally ALAN KRUEGER & DOUGLAS KRUSE, LABOR MARKET EFFECTS OF SPINAL CORD INJURIES IN THE DAWN OF THE COMPUTER AGE (Nat'l Bureau of Econ. Research Working Paper No. 5302, 1995) (finding a strong correlation between computer technology and likelihood of employment).

102. See BLANCK, COMMUNICATING THE ADA, *supra* note 10, at 10 (discussing in-depth studies conducted before and after implementation of Title I of the ADA).

103. See Lata Chatterjee & Monika Mitra, *Evolution of Federal and State Policies for Persons with Disability in the United States: Efficiency and Welfare Impacts*, 32 ANNALS REGIONAL SCI. 347, 361 (1998) (asserting that public policy measures exert work disincentive pressures against disabled people). See generally Baldwin, *supra* note 88; Richard V. Burkhauser, *Post-ADA: Are People with Disabilities Expected to Work?*, 549 ANNALS AM. ACAD. POL. & SOC. SCI. 71 (1997)

earlier accommodation cost studies by yielding evidence about the percentage of individuals with severe disabilities requiring accommodations, the cost of all requested accommodations, and the dynamics underlying employer compliance (both voluntary and involuntary) in providing accommodations. These types of enquiries, which have been rare because they fall outside the traditional labor market model, would provide added information and insight to an area in need of greater clarity.<sup>104</sup>

A practical example of utilizing an alternative metric to assess post-ADA employment effects on disabled workers is offered elsewhere in this volume by members of the Law, Health Policy & Disability Center.<sup>105</sup> Blanck and his colleagues studied the employment experiences of entrepreneurs with disabilities (EWD study). This is an infrequently examined group<sup>106</sup> despite the fact that the disabled are about twice as likely to be self-employed as their nondisabled peers.<sup>107</sup> Among the findings of the EWD study, one especially underscores the value of using metrics outside the traditional model. Small business owners were often willing to provide accommodations because of first hand experience with disabled workers' capabilities.<sup>108</sup> Under the neoclassical labor market model, rational employers are unwilling to hire workers with disabilities because of their inately lower efficiency. This disincentive should be compelling in the absence of a statute or regulation preempting employers' considered personal choices and directing that disabled applicants be hired, retained, or promoted.<sup>109</sup> Because many, if not most, small businesses fall beneath the fifteen employee requirement of Title I's employment provisions,<sup>110</sup> the traditional paradigm would reckon small business owners among the employers least likely to hire workers with disabilities. Nevertheless, the EWD study demonstrates that employers' personal experience with disabled workers was often a sufficient motive to include disabled individuals in their workforces.<sup>111</sup> As such, the EWD study corroborates the findings of two previous

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(commenting on disability policies).

104. See generally Frederick C. Collignon, *Is the ADA Successful? Indicators for Tracking Gains*, 549 ANNALS AM. ACAD. POL. & SOC. SCI. 129 (1997) (suggesting alternative tracking indicators for employment and income).

105. See generally Blanck et al., *The Emerging Workforce of Entrepreneurs with Disabilities*, *supra* note 2.

106. But see SELF-EMPLOYMENT IN VOCATIONAL REHABILITATION: BUILDING ON LESSONS LEARNED FROM RURAL AMERICA (Nancy Arnold ed.), available at <http://ruralinstitute.umt.edu/rtrcrural/SelEm/monograph/IntroSelEm.htm> (reporting the results of utilizing self-employment in rural Montana as a vocational rehabilitation scheme).

107. See FUTUREWORK, *supra* note 83.

108. See Blanck et al., *The Emerging Workforce of Entrepreneurs with Disabilities*, *supra* note 2, at 1572.

109. See Stein, *Labor Markets*, *supra* note 8, at 34.

110. See 42 U.S.C. § 12111(5)(A) (1994) (stating that Title I applies to employers with fifteen or more employees).

111. See also John F. Newman & Roxan E. Dinwoodie, *Impact of the Americans with Disabilities Act on Private Sector Employers*, 20 J. REHABILITATION ADMIN. 3 (1996) (reporting on a study of 20,000 private sector employers in Georgia, which found that employers lacked information about both the ADA and workers with disabilities).

analyses. The first found that newly disabled workers at large firms received accommodations.<sup>112</sup> The second, a review of Canadian workers covered by provisions similar to the ADA, reported the same.<sup>113</sup> Taken together, these three examinations present a view of the dynamics underlying employers' decisions regarding workers with disabilities that is very different from the traditional labor market paradigm. Although subject to the same types of critiques leveled at earlier cost accommodation studies,<sup>114</sup> these analyses of alternative metrics provide important information not ordinarily garnered through traditionally directed research.

#### CONCLUSION

As part of a continuing research agenda into the conundrum of post-ADA employment effects, this essay evaluated both accommodation cost and employment and wage effect studies. It is clear that, absent additional empirical evidence, neither the conclusions reached by these studies, nor my critiques, are dispositive. Operating from an expedient working assumption that the studies examined were accurate, however, the implications of each set of findings were considered. The accommodation cost studies provide a means to recalibrate the metric by which employees with disabilities' economic efficiency is measured. The employment and wage effect studies raise important policy implications if Title I is, in fact, causing a decline in the relative employment levels of disabled workers. I suggest that future research assessing post-ADA employment effects on workers with disabilities would benefit from examining aspects of employment policies beyond the traditional labor market paradigm. These considerations include the influence of environmental factors upon the ADA's efficacy and the use of alternative measures by which to gauge Title I's success. Making these enquiries will add insight to the continuing puzzle of whether the ADA really is "working," as well as the attendant concern of what policies should therefore be pursued.

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112. See generally Nancy R. Mudrick, *Employment Discrimination law for Disability: Utilization and Outcome*, 549 ANNALS AM. ACAD. POL. & SOC. SCI. 53 (1997) (discussing the costs associated with accommodating disabled workers).

113. See generally Morley Gunderson & Douglas Hyatt, *Do Injured Workers Pay for Reasonable Accommodation?*, 50 INDUS. & LAB. REL. REV. 92 (1996) (discussing the cost of accommodations for workers with disabilities and whether the burden falls on the employer or the employee).

114. See *supra* Part II (setting forth these critiques).