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Does Protecting Older Workers from Discrimination Make It Harder to Get Hired? Revised with Additional Analysis of SIPP Data and Appendix of Disability Laws

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Abstract

We explore the effects of disability discrimination laws on hiring of older workers. A concern with anti-discrimination laws is that they may reduce hiring by raising the cost of terminations and – in the specific case of disability discrimination laws – raising the cost of employment because of the need to accommodate disabled workers. Moreover, disability discrimination laws can affect nondisabled older workers because they are fairly likely to develop work-related disabilities, yet are not protected by these laws. Using state variation in disability discrimination protections, we find little or no evidence that stronger disability discrimination laws lower the hiring of nondisabled older workers. We similarly find no evidence of adverse effects of disability discrimination laws on hiring of disabled older workers.

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I. Introduction

In coming decades the share of the population aged 65 and older will rise sharply – from 17 percent of those aged 20 and older in 2000, to 28 percent in 2050 (projected) – and will approach equality with the share aged 45-64 by the middle of the century (Neumark, 2008). The aging of the population creates an imperative to increase the employment of older workers – lowering dependency ratios, raising tax revenues, and decreasing public expenditures on health insurance, retirement benefits, and income support.

Supply-side policy to encourage longer work lives – such as the 1983 Social Security reforms that reduced benefits at the early retirement age of 62 and raised the full retirement age (the FRA, at which full benefits are available) – can potentially help. However, such policy reforms to increase the employment of older workers may be frustrated by discrimination against older workers. Discrimination against older workers in hiring is a particularly important issue, since serious progress in extending work lives of older individuals is likely going to have to come from employment in new part-time or shorter-term "partial retirement" or "bridge jobs," rather than from continued employment of workers in their long-term career jobs (e.g., Cahill et al., 2006; Johnson et al., 2009), in part because some older workers will need to make transitions to jobs that are less physically taxing.

The natural response to the potential for hiring (and more general) discrimination against older workers is to strengthen laws against age discrimination. Earlier research on the effects of age discrimination laws on employment of older workers found that when age discrimination laws were passed, they increased employment of protected workers, likely in large part by reducing opportunistic terminations of higher-cost older workers (Neumark and Stock, 1999; Adams, 2004). More recently, Neumark and Song (2013) found that stronger state-level age discrimination protections enhanced the impact of the 1983 Social Security reforms; for older individuals for whom early retirement benefits fell and the FRA increased, stronger state protections were associated with delayed benefit claiming and increases in employment.

However, age discrimination laws could boost employment of older workers by reducing

terminations, without necessarily increasing their hiring, and could even reduce hiring of older workers. Because in hiring cases it is difficult to identify a class of affected workers, and economic damages are smaller than in termination cases, age discrimination laws may not spur much enforcement against hiring discrimination. Moreover, if age discrimination laws mainly raise the costs of terminating older workers, and the laws are not effective on the hiring side, then age discrimination protections could end up deterring hiring of older workers (Bloch, 1994; Lahey, 2008b; Posner, 1995).[1] Some studies conclude that there is age discrimination in hiring (Bendick et al., 1996, 1999; Lahey, 2008a), while research that tries to directly estimate the effects of age discrimination laws on hiring is sparse and mixed. Lahey (2008b) argues that there is some evidence that stronger state age discrimination laws deter hiring. Neumark and Song (2013) find evidence – although it is weak – that stronger state age discrimination protections boosted hiring of older workers affected by increases in the FRA. Neumark and Button (2014) find that stronger state age discrimination protections were associated with less hiring of older workers during and after the Great Recession, which they suggest could reflect uncertainty about future demand facing firms enhancing the fear of higher termination costs that stronger age discrimination protections can impose.

In this paper, we turn our attention to disability discrimination laws, exploring whether these laws are ultimately likely to be a help or a hindrance in achieving the goal of significant lengthening of the work lives of older individuals, via their effect on hiring. Although disability discrimination laws do not specifically define older disabled workers as a protected class, the incidence of disabilities that can limit work and hence trigger protection by disability discrimination laws rises steeply with age, especially past age 50 or so; see Rowe and Kahn, 1997, and Figure 1 below). This is recognized in the Americans with Disabilities Act (ADA), which notes that the number of disabled "is increasing as the population as a whole is growing older." The implication is that older workers may be disproportionately affected by disability discrimination laws. Moreover, the perception that a potential worker has a disability or is

[1] This is consistent with more general research on employment protection legislation. For example, Behaghel et al. (2004) find that when firing costs were eliminated in France for hiring workers over age 50 were eliminated, hiring of older workers increased.

likely to have one in the near future should also rise steeply with age, and that perception – for reasons argued in this paper – may be particularly likely to affect older workers adversely.

Scholars have argued that disability discrimination laws may do more to protect older workers than age discrimination laws. In discussing the Americans with Disabilities Act (ADA), Sterns and Miklos (1995) suggest that "Many of the ailments associated with older adulthood are now classified as disabilities. Arthritis and back ailments are examples. ADA provides equal protection to workers of all ages and … will benefit older workers without directly protecting them at a certain age" (1995, pp. 251-2). One consequence of the overlap between age and disability is that many aggrieved older workers may have the option of pursuing discrimination claims under either the Age Discrimination in Employment Act (ADEA) or the ADA. Claims filed under the ADA may be more successful because, unlike the ADEA, the ADA does not include an exception for bona fide occupational qualifications (BFOQs).[2] (Under the ADEA, BFOQ exceptions arise when age is strongly associated with other factors that pose legitimate business or safety concerns.) Because the ADA does not have a BFOQ exception, it may offer greater protection to older workers suffering from some of the milder adverse consequences of aging that, under the ADEA, might be grounds for discharge or failure to hire (Posner, 1995). That is, age discrimination laws, in contrast to disability discrimination laws, do not rule out factors associated with age – such as physical impairments – as grounds for discrimination, under a "business necessity" defense (Starkman, 1992). Further, the age-related disability might still be judged as amenable to "reasonable accommodation" by employers in the language of the ADA or state disability laws, which usually require "reasonable accommodation" of the worker, making it much harder to justify an apparently discriminatory practice on the basis of business necessity (Gardner and Campanella, 1991). Moreover, because of the relationship between age and disability, as the population ages, more of those individuals protected by the ADEA are also likely to come under the protection of the ADA.

But this can cut two ways. Specifically, the concern that antidiscrimination laws may deter hiring of older workers is potentially more powerful with respect to disability discrimination laws than age

[2] See Stock and Beegle (2004) for similar arguments.

discrimination laws, for two reasons – one having to do with the relationship between aging and disability, and one having to do with the nature of disability discrimination laws. First, as noted above, disability discrimination laws have important features that may make them more powerful than age discrimination laws at protecting workers from discrimination. But these features may also raise the cost of employing an older worker who is disabled or who might become disabled, perhaps most notably because of the requirement for reasonable accommodation of disabilities. As such, disability discrimination laws can pose higher potential costs to employers than do age discrimination laws – with both more grounds for a discrimination claim resulting from a termination decision, and direct costs from having to accommodate an older worker with a disability or who develops a disability. Moreover, an employer would likely regard the probability that an older worker becomes disabled and requires accommodation as higher than the probability that an older worker is terminated and files a spurious age discrimination claim.

Second, disability discrimination protections could affect hiring of *nondisabled* older workers because employers know that older workers have a higher likelihood of developing a physical impairment by virtue of their age, and the disability laws do not protect them if they are not yet disabled. Indeed consistent with this conjecture, research on age stereotypes notes that experimental subjects were more likely to reject the request of an older worker for a transfer to a physically-demanding job (Rosen and Jerdee, 1976), and that there were negative stereotypes about older workers' mental health (Hummert, 1990; Goebel, 1984).

We would not expect employers to be very responsive to the possibility that a younger worker will become disabled, because the probability is low (although it could be magnified by the prospect of longer tenure compared to older workers). However, this probability is considerably higher for older workers, and hence in studying whether disability discrimination laws deter hiring or older workers, it is particularly interesting to look at hiring of nondisabled older workers.

Like age discrimination laws, disability discrimination laws vary across states, perhaps in ways that are more significant than variation in age discrimination laws. The research strategy we use in this

paper exploits this state variation in disability discrimination laws, and how it is associated with hiring of older workers. While past research studied the effects of much earlier variation in state disability discrimination laws (e.g., Beegle and Stock, 2003) or variation induced by the implementation of the Americans with Disabilities Act or the ADA (e.g., Acemoglu and Angrist, 2001), our paper is the first to study the effects of contemporaneous variation in state disability discrimination laws.

In the post-ADA period covered by our data there is virtually no variation in state disability discrimination laws.[3] Hence, we are constrained to study cross-state hiring variation associated with these laws. Moreover, because – as we have argued – disability discrimination laws can affect both the disabled and the nondisabled, we cannot use effects on protected versus unprotected groups to provide a second level of differencing that might control for some sources of variation that confound cross-state differences between outcomes (hiring rates, in our case). Despite our limited ability to test the effects of disability discrimination laws in as compelling a fashion that is more commonly used to study the effects of variation in laws across states, we believe our paper broaches an important question regarding disability discrimination laws and older workers, and provides some interesting first evidence.

II. Related Research

Existing research on the effects of disability discrimination laws on labor market outcomes considers different questions from those we study.[4] Studies by Acemoglu and Angrist (2001) and Deleire (2000) suggest that the ADA reduced employment among disabled individuals. This could stem from the firing costs associated with wrongful termination suits or from the costs of accommodating disabled workers, along with difficulties in reducing discrimination in hiring. Both studies identify the effects of the ADA from time-series changes in the employment of the disabled (relative to the nondisabled). With this identification strategy, however, different trends in the employment rates of these groups can

[3] We use the HRS, which begins in 1992. We also use the Survey of Income and Program Participation (SIPP) for the same period. We could take the SIPP data back further, exploiting pre-ADA variation in state laws (the ADA was passed in 1991); pre-ADA variation is studied by Beegle and Stock (2003) and Stock and Beegle (2004), discussed below.

[4] See the review in Jones (2008).

incorrectly be attributed to the effects of the ADA, and effects on the nondisabled could contaminate the results. As in other areas of policy research, it is preferable – when possible – to examine sub-national variation in laws, using developments in the states that do not pass laws as controls for the states that do. Beegle and Stock (2003) also point out that when the ADA was enacted all but two states had laws barring discrimination against the disabled, although there was heterogeneity in these laws. This raises questions about what is identified from time-series changes in employment of the disabled and nondisabled around the passage of the ADA. On the other hand, Acemoglu and Angrist (2001) do report some confirming cross-state variation, in that the declines in employment of the disabled were larger in states with more ADA-related discrimination charges.

Beegle and Stock (2003) estimate the effects of disability discrimination laws using variation in state laws barring discrimination against the disabled passed at different times between 1970 and 1990 (prior to the ADA). They do not find that these laws reduced employment of the disabled (nor do they find positive employment effects). They also seek to identify the incremental effect of "reasonable accommodation" provisions in state laws and find none. Kruse and Schur (2003) present additional evidence raising doubts about the conclusions from the time-series approach, showing that the answer differs depending on how disability is defined (as well as exploring some other issues regarding differential trends in employment of the disabled and nondisabled). And Hotchkiss (2004) argues that the apparent decline in employment of the disabled does not reflect lower demand – due to increased barriers – but rather a decline in labor force participation among the disabled, mainly from (self) reclassification of nonparticipants as disabled.

Jolls and Prescott (2005) explored these issues further, exploiting the variation in state laws when the ADA was passed to identify the "reasonable accommodation" and firing cost effects of the ADA. For example, because of state variation, the ADA added the reasonable accommodation provision in some states but not others. Their conclusions are a bit more mixed, finding that the reasonable accommodation provision does reduce employment, but only in the short term.[5] Thus, for the longer-term effects that are

[5] They suggest that the effects of the reasonable accommodation provision may fade over time because of an

more relevant, their conclusions are similar to those of Beegle and Stock in suggesting that there is little evidence of adverse employment effects of the ADA.

The study by Stock and Beegle (2004) is most closely related to ours. This paper extends the analysis of the literature discussed above to the nondisabled, arguing – echoing the discussion in the Introduction – that older workers who are not disabled may receive greater protection from age discrimination when there are disability discrimination laws. Moreover, they test for interactions between age and disability discrimination laws. They find a positive interactive effect on employment of nondisabled workers aged 40-64, but a net effect of disability discrimination laws that is very small and statistically insignificant.

There are limitations of this existing evidence in terms of the questions on which we focus. First, the research on disability laws does not focus on those aged 65 and older,[6] even though this is the group that is of considerable interest in terms of extending work lives, and for which disability rates are quite high (see Figure 1, discussed below). Thus, the existing research may speak more to the consequences of disability-related discrimination laws for those with "traditional" disabilities rather than to disabilities that are more the result of aging. Second, the past research studied implementation of state discrimination protections prior to the federal ADA, or implementation of the ADA, rather than the more recent period when there is a federal law but some state laws are stronger. Third, past research did not consider the types of variation in these laws that the proposed research will consider, although some of it addresses earlier heterogeneity in state disability discrimination laws. Fourth, only one of the past studies considers a key issue we study – which is how these laws affect nondisabled older workers. And fifth, the existing research does not address hiring per se, which we have suggested is important because of the role it can play in extending work lives of older workers, and because it is the

increased flow of disabled workers into the workplace as attitudes change, declining costs of accommodation due to technological change and judicial refinements of the ADA's requirements, and more enforcement regarding discrimination in hiring based on accommodation costs sometime after the law was passed.

[6] Beegle and Stock (2003) use an age cutoff of 64, and Jolls and Prescott (2005) use a cutoff of 58.

outcome that may be most likely to be *deterred* – albeit as an unintended consequence – by disability discrimination protections.

III. Disability Discrimination Laws

To study the effects of disability discrimination laws, we first needed to code up these laws. To do this, we followed the procedure developed in Neumark and Song (2013) to code state age discrimination laws. This required extensive background research on state statutes and their histories, culled from legal databases including Lexis-Nexis, Westlaw, and Hein Online, as well as many other sources. The first step in assembling information on state disability discrimination laws was to identify the appropriate state statute, which can be complicated because the disability discrimination law can be listed under various sections of state law (a fair employment act, a separate disability discrimination act, etc.). After the appropriate statute was identified, we traced the history of the statute using the legal databases to look for changes over time. In some cases we had to look beyond the statutes to information from state agencies, case law, or other sources.

Because it is complicated to read and interpret the law correctly based solely on statutes, we cross-checked our understanding of the statute with other legal references or treatises and additional sources of information on state laws.[7] The other sources were also useful because of a further challenge in reading statutes. In particular, one section may define what a discriminatory act is, while other provisions may be delegated to the Civil Rights Commission, or the remedies may be listed under a different section of the statute.

To minimize inaccuracies, once all the necessary information was obtained from these sources, we attempted to compare and validate it using other sources. If information obtained from different

[7] These included Beegle and Stock (2003), Buckley and Green (2011, 2009, 2008, 2006, 2002, 1997), Colker and Milani (2002), DRI (2011), Green (1992), Long (2004), Perry (2011), and a 50-state survey of discrimination laws at http://www.navexglobal.com/sites/default/files/uploads/lb_Descrimination-50States.pdf (viewed September 22, 2014).

sources coincided, we were confident that the information was correct. In cases of what should be unambiguous information – in particular the employment level at or above which the law applies – we use the information from the statute regardless. However, in cases of information that can be more easily misinterpreted from the statute, when we found discrepancies, we turned to state agencies or other sources for corroborating information. We also examined case law, using the legal databases, to see if rulings established fixed features of the state laws that were not specified in the statute, such as damages allowed.

As a result of these efforts, we were able to fill in all the information on these laws for our sample period. The only possible exception is for damages. In particular, if our information on damages came not from statutes but rather from case law or other sources, then we did not necessarily have an explicit "reading" on these damages in every year. But since our other sources cover many years, the only variation we could miss was some short-term change between the level of damages we get from other sources. We assume, though, that there is little or no such variation.

There are three major ways in which state disability discrimination laws can be stronger than the federal ADA. Two of these increase the number of individuals who are protected under state law, via the definition of disability, or the minimum firm size for disability discrimination laws to apply. The third is more possible compensation for plaintiffs, through larger or no caps on compensatory and punitive damages, relative to the capped damages available under the ADA. The first three columns of Table 1 display the information on state disability discrimination laws, based on the preceding discussion.[8]

The minimum firm size for the ADA to apply is 15. We create an indicator variable equal to one if the firm size minimum is lower than 10 (i.e., substantially lower than the ADA minimum), and zero otherwise. When the firm size minimum is lower, more workers (and employers) are covered.

Defining disability is of course more complicated than defining other protected groups, like age, race, and sex, and the definition of disability differs across states. Most states adopt the same definition as the ADA, either explicitly or via case law. Under the ADA, an individual can be deemed disabled by satisfying one of three criteria:

[8] Additional information on these laws and how we determined their coding is provided in an on-line appendix (also available from the authors upon request).

1. Has a physical or mental impairment that substantially limits one or more major life activities;[9]
2. Has a record of such an impairment;
3. Is regarded as having such an impairment.

Given that the definition of physical and mental impairment is quite broad, the "substantially limits" requirement can probably be thought of as the main criterion defining disability under the ADA and similar state laws. Moreover, the "substantially limits" phrase has been interpreted by the courts as quite restrictive. The U.S. Supreme Court, in the "Sutton Trilogy" of cases (Sutton v. United Airlines [119 S. Ct. 2139 (1999)]), Murphy v. United Parcel Service, Inc. [119 S. Ct. 2133 (1999)]), and Albertson's, Inc. v. Kirkingburg [119 S. Ct. 2162 (1999)]), deemed individuals to be not disabled if mitigating measures, such as glasses or medication, made the limiting features of the disability dormant. A U.S. Court of Appeals, 4th Circuit, decision also restricted episodic conditions, such as epilepsy, from being considered a disability in EEOC v. Sara Lee Corp., 237 F.3d 349 (4th Cir., 2001).[10]

Some states use a weaker criterion in this regard than the "substantially limits" requirement of the ADA under the first criterion above. In two states this is done by the statutes substituting "materially limits" (MN) or just "limits" (CA) for "substantially limits," with legal interpretations or statutes being explicit that this is a less stringent standard.[11] Several states (CT, IL, NJ, NY, and WA) adopt an even laxer definition, considering an individual to be disabled if their impairment is medically diagnosed, regardless of whether the impairment substantially limits one or more major life activities. Long (2004) argues, as seems quite reasonable, that these medical definitions broaden coverage relative to the ADA. To capture this variation, we create a dichotomous variable called "broader definition," which equals one

[9] Major life activities that have to be substantially limited were not defined in the ADA, but were defined by the EEOC as: "(i) Caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, sitting, reaching, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, interacting with others, and working; and (ii) the operation of a major bodily function…" (29 C.F.R. 1630.2 (i) and (ii)). A list similar to this was included in the ADA Amendments Act (ADAAA), discussed in the next footnote.

[10] These decisions were reversed by the ADAAA, effective in 2009, which is beyond our sample period. Under the ADAAA, states where the ADA's definition of disability prevailed became more like those states using a medical impairment definition, discussed next. In principle we could use data pre- and post-2009 for identifying information on this dimension of variation in disability discrimination laws, but the confounding effects of the Great Recession make this unlikely to be informative.

[11] See the on-line appendix (also available from the authors upon request) for more information on case law supporting these definitions as broader than the ADA.

for states with the medical definition of disability, and zero otherwise. We also considered including California and Minnesota in the broader definition category with the medical definition states, but ultimately decided not to because the definition in these states seems much closer to the ADA definition. Nonetheless, we verified that results with this alternative classification were similar.

Damages are likely to play a major role in the strength of discrimination laws, based in part on evidence from age discrimination laws (Neumark and Song, 2013). The ADA caps the sum of compensatory and punitive damages per claimant based on firm size, as follows:

1. 15-100 employees: $50,000;
2. 101-200 employees: $100,000;
3. 201-500 employees: $200,000;
4. 500 plus employees: $300,000.

Few states follow this exact schedule (AR, CO, DE, and MD from 2007 onward, SC, TX, WI prior to April 20, 2012). Fifteen states allow larger potential damages, either through higher caps (AK, ME, NV, NC) or, more commonly, through no caps at all on both compensatory and punitive damages (CA, DC, HI, MA, MO, NJ, OH, OR , RI, VT, and WV). We create a dichotomous variable called "larger damages," which equals one for the 15 states where potential damages exceed those under the ADA, and zero otherwise. Four states (FL, ID, KS, MN) have lower damage caps than the ADA, and two states (AL and MS) have no law (in which case we code the state as not having the stronger provision). There are 24 states with no punitive damages under state law, most of which allow uncapped compensatory damages. We do not include these states in the larger damages category because compensatory damages require documentation and in many cases seem unlikely to be as large; an example might be medical bills if an employee was terminated unjustly, and dropped from a health

insurance plan. Thus, punitive damages are likely more the driver of large judgments.

IV. Labor Market Data

Health and Retirement Study (HRS) Data

The part of our analysis that focuses exclusively on older workers uses the Health and Retirement Study (HRS), a large, longitudinal dataset that covers older individuals biennially starting in 1992. We use data from nine waves from 1992 through 2008, avoiding the period of the Great Recession by ending the sample in 2008. The initial HRS cohorts were born from 1931 to 1941, but other cohorts have been added to the study, so that currently the oldest cohort in the HRS was born in 1924 and the youngest cohort was born in 1955. In addition, although the sampling frame for the HRS depends on birth year, spouses of the respondents are also included, with birth years that range from 1890 to 1983. We restrict our data (for almost all of our analyses) to respondents aged 53 to 69, and avoid spouses outside these age ranges who can be highly nonrepresentative of their ages.[13] We study men only to avoid complications from the very different labor force participation patterns of men and women in the covered cohorts. The HRS oversamples Hispanic, blacks, and residents of Florida, and since much of our analysis can be viewed as descriptive, we use sampling weights to strive for representativeness.

The dependent variable of interest is hiring. To measure this as accurately as possible, we use more information than simply employment status and other information about the job at each HRS interview, by using responses to interview questions that provide information on labor market transitions

[12] For reasons explained below, some of our analyses incorporate information on two features of state age discrimination laws – larger damages, and the firm-size cut-off – in some of our analyses. This information (from Neumark and Song, 2013) is listed in the last two columns of Table 1. As the table shows, firm-size minimums are similar for disability and age discrimination laws, but there are nine states that have a different minimum (AL, AR, DE, GA, KY, IN, LA, NE, and SD). With regard to damages, we focus on whether compensatory or punitive damages are allowed, which they are not under federal age discrimination law (the ADEA). Some states require proof of intent to discriminate in order for compensatory or punitive damages to be awarded, whereas others require "willful" violation. Because the federal law allows additional liquidated, nonpunitive damages (double back pay and benefits) when there is "willful" violation, the question of whether the state requires intent or willful violation may seem to be potentially relevant in deciding whether a state law offers greater protection. However, willful violation is a much stricter standard than intent (Moberly, 1994). Moreover, compensatory or punitive damages are almost certainly greater than liquidated damages, and they can be much greater. As a consequence, a state law that provides compensatory or punitive damages, whether or not this requires proof of intent or willful violation, clearly entails stronger remedies than the federal law, so our classification captures whether either is allowed.

[13] We impose the minimum wage restriction of 53 because members of the HRS initial cohort were between age 51and 61 when they were first interviewed in 1992. We can only observe their hiring outcomes starting with the second wave, which is two years later.

between the interviews, which we refer to as "inter-wave" information. Specifically, employment transitions from self-employed or not working to employed are coded as hires, as are transitions from employed at wave t-2 to working for a different employer at wave t (HRS waves are two years apart). Respondents who make transitions from nonemployment at wave t-2 to self-employed or nonemployment at wave t are coded as hires if they report working for a wage or salary between waves. Otherwise respondents are coded as nonhires.[14] The control variables we include are described in the notes to the tables and figures discussed below.

Although we have coded hiring for every observation for which it is possible, in the paper we focus attention on those initially nonemployed (in period t-2), asking if they were hired as of period t. We do this because a job-to-job transitions are harder to interpret. They capture new hiring, of course. But they can also capture adverse outcomes at the previous job, whereas we can assume that nonemployed workers who become employed were definitely looking to get hired. Thus, we think that the estimated effects of disability discrimination laws on hiring of the previously nonemployed better isolates the effects of these laws on hiring. Nonetheless, we have examined all of the analyses we report in this paper using all hiring instead. In general, qualitative conclusions about the effects of disability discrimination laws are unchanged; these results are available from the authors upon request.

Survey of Income and Program Participation (SIPP) Data

We also use SIPP data so that we can look at a larger age range, in part to exploit differences between younger and older workers to learn more about the potential effects of disability discrimination laws, as explained in the next section. To correspond to the years covered by the HRS, we use data from the 1992, 1993, 1996, 2001, and 2004 SIPP panels; the last panel extends into 2008.

We exploit the longitudinal nature of the data to construct person-month hiring data. We implement a similar method as we do with HRS where our hiring measure is mainly based on

[14] In some cases, we made our best determination as to whether there was an inter-wave hire even when the information available is not completely decisive. Specifically, the questions on work between waves were not asked for respondents who went from self-employed to not employed or self-employed, if they do not know when they stopped the initial self-employed job; we assumed these individuals were not hired between waves. Also, many observations are missing the inter-wave information and classified as "inapplicable or partial interview" in the codebook. For cases with missing data and transitions from wave t-2 to t between disabled, retired, and not in the labor force (based on the RAND HRS labor force status code), we assumed no hire occurred.

respondents' employment status and the information on whether a worker reported changing employer and when they began working for the new employer. Although respondents report their employment status at both a weekly and monthly frequency, the information on when they began working for the new employer is only available at the monthly level. Thus, our hiring measure is at the monthly level. Paralleling our decision regarding the HRS, we did not use the most recent SIPP 2008 panel to avoid the Great Recession. We also restrict our sample to males, for reasons described earlier, and use sampling weights since the SIPP oversamples from high poverty areas.

To be more specific, to measure hiring we use the monthly employment status data to categorize respondents as employed, self-employed, or not working. If respondents report having a job for at least one week during the reference month, we record them as employed. If they report having a job for at least one week during the reference month and own their own business, we define them to be self-employed. If they report having no job, we define them to be not working. If they make a transition from self-employed or not working at t-1 to employed at t (which here denotes a monthly frequency), we code them as hired. If they are employed at t-1 and employed at t and report that they started their job at t, then we code them as hired at t. As for the HRS analysis, we focus on the sample not employed at period t-1, and estimate models for whether these respondents were hired as of period t.[15]

The SIPP interviews respondents every four months and reports about their previous four months. A well-known limitation of the SIPP is a strong tendency for individuals to report the same value within a four-month interview period. This is called seam bias, which exaggerates the changes across waves and smooths out the changes within each four-month reference period (Ham et al., 2011). To address this seam bias, we include an indicator for being on a seam between two interview waves. Other control variables we include are described in the notes to the tables and figures discussed below.

Disability Definitions

We focus more of our results on self-reported, work-impairing disabilities. In the HRS, the

[15] There is other information that could in principle be used to identify hiring, in particular the unique job identification number across waves. However, we do not use this information due to reported inconsistency in implementation (Stinson, 2003).

disability definition is based on the question "Do you have any impairment or health problem that limits the kind or amount of paid work you can do?" In the SIPP, the disability definition is based on the question "[Do you] have a physical, mental, or other health condition that limits the kind or amount of work [you] can do?"[16] These questions are, fortuitously, very similar.

We also examine key results (and report additional results in an appendix available upon request) using an alternative definition based on self-reported fair or bad health (with the additional options being good, very good, or excellent). These are not identical. In the HRS data about 59 percent of those who report a work-limiting disability report that they are in fair or bad health, and about 64 percent of those who report fair or bad health also report a work-limiting disability. However, Appendix Table A1 shows that, in the HRS data, these two measures have similar relationships with difficulties in activities and instrumental activities, with functional limitations, and with doctor-diagnosed medical problems.

V. Empirical Analysis

We study the effects of disability discrimination laws on hiring in a number of ways. For the most part, we rely on cross-state variation in the strength of state disability discrimination laws to try to assess how stronger laws affect hiring, because there are virtually no changes in these laws during the periods we study. We do, nonetheless, present a quite rich analysis that reveals differences in hiring rates by single-year age cells, for both the nondisabled and the disabled, in states with stronger and weaker disability discrimination laws along each of the dimensions discussed earlier and categorized in Table 1.

To try to get more compelling identification for some of our analyses, we also estimate difference-in-differences models. In particular, one of the key questions we study is the effect of disability discrimination protections on the hiring of nondisabled older workers, who we speculated could be adversely affected because of expectations of a reasonable probability that such workers will develop a disability and become protected by disability discrimination laws. Given that there is a rather sharp rise in disability rates (as measured in the SIPP – see Figure 1 discussed below) at or soon after age 50, we construct difference-in-differences estimates for the effects of disability discrimination laws on hiring of

[16] This disability variable in the SIPP is asked only for individuals who are 69 years or younger, so we restrict the SIPP sample to 15 to 69 years of age.

nondisabled workers over and under cutoffs near 50. The idea is that differences in hiring rates for those who are nondisabled and younger than age 50 (or similar thresholds) capture state differences arising from factors unrelated to state disability discrimination laws and hence can control for these factors, so that differences associated with these laws for those who are nondisabled and older than age 50 relative to those who are nondisabled and younger than are 50 are more likely to reflect the actual effects of these laws. Of course this is not completely clean because even younger nondisabled workers could, in principle, be affected by disability discrimination laws. And it would not make any sense to implement this strategy for the disabled because hiring of the disabled of all ages could be affected by disability discrimination laws.

Descriptive Statistics

Figure 1 shows self-reported, work-impairing disability rates by age in the HRS and SIPP data. In the HRS data, which cover a narrow age range, these rates rise largely monotonically with age, from around 15 percent near age 55 to 25 percent at age 65-70.[17] In the SIPP data, the larger age range reveals more nonlinearity in this relationship. The disability rates in the range covered by the HRS are quite similar, but the figure reveals quite low and stable disability rates through about age 40, in the 5-8 percent range, a slight steepening during the 40s, and then fairly sharp increases beginning in the 50s.[18] This age pattern is the basis for the difference-in-differences approach mentioned above.

Table 2 reports descriptive statistics – means and standard errors of means – for the variables used in our analysis, beginning with the computed hiring rate and then the controls. For the SIPP, we report these for both the full sample and those aged 53-69, which provides a better comparison for the ages common to the SIPP and the HRS for which we also have the disability question.

Comparing the data sets shows that the measured hiring rate is much higher in the HRS, presumably because of the biennial frequency used for the HRS as opposed to the monthly frequency used for the SIPP. The descriptive statistics for the control variables are fairly comparable in the two datasets, for the same age ranges.

[17] In the following analyses we restrict the HRS sample to be no older than 69, to line up with the oldest age for which this disability question is asked in the SIPP. In this figure, though, we show disability rates through age 80.

[18] The slight dip after age 60 may be related to the relationship between whether one works and how one answers this question.

Hiring Rates by Age and Disability Discrimination Laws

We next present a set of figures (Figures 2 and 3) that provide information on hiring rates by age. Figure 2 covers the HRS, and Figure 3 covers the SIPP. In each figure we show three panels, each with two graphs – one for the nondisabled, and one for the disabled. Each of these panels displays the hiring rates, for single-year age cells, for states with a stronger disability discrimination law provision and states without that stronger provision (or no laws). The three panels for each data set present results, respectively, based on the broader definition of disability, larger damages, and a lower minimum firm-size cutoff for the law to apply.

The estimates displayed in the graphs come from a probit model for the hiring outcome on the controls listed in the notes to the figures, a set of dummies for every age group, and a full set of interactions between these age dummy variables and a dummy variable for the stronger disability discrimination protection under consideration.[19] Using the probit estimates, we compute the predicted hiring probability at each age, for each set of states (with and without the stronger provision), setting the other controls at their sample means. Thus, these figures show the difference in hiring rates by age for otherwise identical workers (evaluated at the sample means), based on whether that worker resides in a state with the stronger disability discrimination protection or not.

Figure 2, Panel A, displays results for the HRS data, focusing on the distinction between states with or without the broader definition of disability than the ADA. For the nondisabled, in the left-hand graph, it appears that hiring rates are for the most part lower in states that use the broader definition. For ages 58 to 69 the hiring rate in these states is always below or about equal to the hiring rate in the states that do not use the broader definition. This is consistent with the conjecture that stronger disability discrimination laws can deter hiring of older nondisabled workers. For the disabled, in the right-hand graph, the evidence looks similar and a bit more pronounced, suggesting that stronger protections for disabled older workers can lower their hiring rate.

Figure 2, Panels B and C, present similar analyses, but for larger damages (Panel B) and a lower firm-size cutoff (Panel C). In these figures there is much less clear evidence of a systematic relationship

[19] Note that we do not control for the unemployment rate or another aggregate labor market indicator, which would be endogenous with respect to hiring (especially of the large nondisabled workforce).

between stronger state laws and hiring of older workers. In the states with larger damages, the hiring rate of the nondisabled is generally lower for those in their 60s, but the difference appears small. And for the disabled there is no clear indication.[20] For the lower firm-size cutoff, in Figure 2, Panel C, there is no clear evidence of a difference in hiring rates for either the nondisabled or the disabled.

Table 3 provides more succinct summary information from these figures, in the columns labeled "HRS." In particular, for different age ranges we report – based on the estimates that underlie Figure 2 – the average difference in hiring rates between states with and without the stronger provision, the percentage of those estimates that are positive, and the p-value for the joint test that the estimated differences in that age range are equal to zero.

For example, recall that Figure 2, Panel A, indicated that hiring rates for the nondisabled were, at older ages, lower in states using the broader definition of disability. This is reflected most strongly in the information reported in the fifth row in column (1), for the 62-69 age range. Here we see that, on average, the difference in the estimated hiring rates was −0.023; as the figure shows, hiring rates at these ages are lower for states using the broader definition, hence the negative sign. The majority of the estimates are negative (37.5 percent are positive), as the figure also shows. However, and something we cannot see in the figure, the hiring rate differences over this age range are not statistically significant; the p-value from the joint test that the differences in this age range are all zero is 0.694.

The remaining information in columns (1) and (2) reports similar information for the disabled as well, and for slightly different age ranges that can be better aligned with the SIPP data. Overall, while the point estimates are consistent with the broader definition of disability lowering hiring rates for older disabled and nondisabled workers (for age ranges that encompass the 60s), the differences are not statistically significant.[21]

The information in columns (5)-(6) and (9)-(10) summarizes the graphs for the other two

[20] We experimented with distinguishing between states with larger damages than the ADA but damages that are still capped, and states with uncapped damages (see Table 1). However, there were no distinct differences between these two groups of states, perhaps in part because there are only four uncapped states and two of them (Alaska and Maine) have very small populations. Thus, all results reported in the paper groups these two sets of states together as having larger damages than the ADA.

[21] Moreover, these joint tests for the age ranges reported in Table 3 do not appear to mask any consistent evidence of significant effects one way or the other for other age ranges (such as smaller ranges within those reported in the table). There is only a smattering of significant coefficient estimates on the age × law interactions at isolated single-year ages.

provisions of state disability discrimination laws (from Panels B and C of Figure 2). We saw that those graphs gave weaker indications of differences in hiring rates at older ages associated with stronger state disability discrimination laws, and that is reflected in these columns. None of the estimated differentials for the age ranges considered in this table are jointly significant, although for larger damages the estimated differentials for all three of the older age ranges for nondisabled workers are negative.

Figure 3 presents results for the SIPP data, which have the advantage of covering a broader age range. Panel A focuses on the distinction between states with or without the broader definition of disability than the ADA. Curiously, for the same age ranges covered by the HRS, the evidence is different, as there is no clear indication that hiring rates for the nondisabled older workers are lower in states that use the broader definition, and for the disabled there is no apparent difference at any ages. This is reflected, for example, in the fifth row (for ages 62-69) of columns (3) and (4) of Table 3, where we see that the average differences in hiring rates are much smaller than those for the same age ranges in columns (1) and (2), and effectively zero. Nonetheless, in the last two rows of the table, for the 53-61 and 53-69 age ranges, for both the broader definition of disability and larger damages the estimates are negative and statistically significant. The estimated differences are very small – in the −0.001 to −0.003 – but these are relative to a SIPP hiring rate for 53-69 year-olds of 0.019, so that the midrange (−0.002) represents about a 10-percent lower hiring rate. On the other hand, the reported percentages of positive estimates is often quite close to 50 percent, suggesting this evidence is not strongly indicative of an effect in one direction.

Panel A of Figure 3 indicates evidence of a systematic difference for younger ages, where the hiring for the nondisabled tends to be lower in the states that use the broader definition of disability – for most ages up to the late 40s. This is reflected in the top rows of columns (3) and (4) of Table 3, where for the nondisabled the average estimated differences in hiring rates between states that use the broader definition and those that do not are negative for ages 20-29, 30-39, and 40-49 – and in all cases the estimates are statistically significant.[22] These estimates range from −0.011 to −0.024 – estimates that are much larger than for the older ranges. (These are, though, relative to a much higher hiring rage [about

[22] Note also that similar differences to those in the HRS data are statistically significant in the SIPP data because of far larger samples.

0.12, as shown in Figure 3], and hence are more similar in terms of relative effects.) For the disabled, though, there are no clear differences in hiring rates in the SIPP at young ages based on the definition of disability. Finally, the differences in hiring rates for older disabled workers are very small and not in a consistent direction, although some of these sets of coefficients are statistically significant.

Figure 3, Panel B, studies larger damages in the SIPP data. In the left-hand panel, there is less clear evidence of lower hiring for the younger nondisabled in states with stronger laws. See also column (7) of Table 3, where the point estimates are smaller in absolute value and not significant, compared to column (3). In the right-hand panel, there is evidence of higher hiring of the disabled at many ages – most pronounced at younger ages. As Table 3, column (8) shows, though, the estimated differences at younger ages are small except for ages 20-29, and generally not statistically significant. Finally, Figure 3, Panel C, reports the results for the lower firm-size minimum, which does not appear to be systematically associated with differential hiring.

To summarize to this point, there is some evidence from the HRS that stronger disability discrimination protections – in terms of a broader definition of disability – reduce hiring of both nondisabled and disabled older workers, and the same is true for the effect of larger damages on older, nondisabled workers. However, this evidence is not statistically significant. The point estimates for the disabled, with the broader definition, are consistent with this stronger disability discrimination protection deterring their hiring, which we might expect as a direct implication of these protections increasing the cost of employing or of terminating a disabled worker. And the point estimates for the nondisabled are consistent with stronger protections also deterring hiring of nondisabled older workers, perhaps because employers regard it as relatively likely that these workers will become disabled and fall under these stronger disability discrimination protections.

The most consistent evidence we could find in the SIPP would be similar lower hiring rates of nondisabled and disabled older workers in states with stronger protections, and perhaps also lower hiring rates of disabled younger workers in states with stronger protections. In contrast, we would not expect lower hiring rates for nondisabled younger workers, because employers should regard them as relatively unlikely to become disabled.

However, the results from the SIPP only partly conform to this. The SIPP results *do* provide

some evidence of lower hiring rates for nondisabled older workers in states with stronger protections – in terms of a broader definition of disability, and larger damages – although this evidence is best regarded as weak. More unexpectedly, the estimates indicate lower hiring rates for nondisabled younger workers in these states, especially for the broader definition of disability. It is conceivable that stronger disability discrimination laws do more to deter hiring of disabled younger workers than to deter hiring of disabled older workers, because younger workers may be more likely to stay with the employer a long time, and hence impose higher accommodation costs. But there is no clear reason that stronger protections should do more to deter hiring of younger nondisabled workers.

To see whether the results are sensitive to the definition of disability, in Table 4 we repeat the analysis – but using a different definition of disability, one based on self-reported fair or bad health (the other choices respondents can report are good, very good, or excellent). This kind of disability measure has the potential advantage of not being tied to whether one is working, although the potential disadvantage is that it does not refer specifically to whether a disability or medical condition limits work.

The results in Table 4 are in many respects qualitatively similar to those in Table 3.[23] Turning to the key results in the HRS data – for older, nondisabled workers – the evidence points to lower hiring when there are stronger protections in the form of a broader definition of disability or larger damages. In columns (1) and (5) all six of the estimates are consistently negative, and the shares positive are low, although again none of the estimates is statistically significant. For the SIPP data, in columns (3) and (7), the evidence is not as clear. The estimates are similar to those in Table 3, but often smaller in absolute value, and less consistently negative. For younger workers in the SIPP data, there is a bit less evidence that stronger state disability discrimination laws reduce employment of nondisabled younger workers (e.g., the smaller estimates for 20-29, 30-39, and especially 40-49 year-olds in column (7), and the fact that all of the estimates for the nondisabled in these age groups are less negative in Table 4 than in Table 3). Overall, though, there are not systematic differences using the alternative disability measure.

An Difference-in-differences Estimates of the Effects of State Disability Discrimination Laws on Hiring of Older Workers

The SIPP sometimes pointing to lower hiring rates of younger, nondisabled workers in states with

[23] The corresponding figures are available in an appendix available from the authors upon request.

stronger protections is puzzling. One interpretation is that this is not causal, but instead reflects unmeasured factors that influence hiring of younger nondisabled workers (which of course is most younger workers) and that are correlated with disability discrimination protections. This helps motivate the final type of analysis we do, which is the difference-in-differences estimation described above that estimates the effect of stronger disability discrimination protection on nondisabled workers from the relative effects of these protections on older versus younger nondisabled workers, effectively using the younger workers to control for other influences on hiring that are correlated with disability discrimination laws. Note that it only makes sense to do this for the nondisabled, since we would expect a direct effect of disability discrimination laws on younger disabled workers (and as noted above, they might even be stronger).

Thus, in Table 5 we report estimates from difference-in-differences specifications. These are based on linear probability models of hiring to avoid the complications from evaluating and reporting interaction coefficients from probit models. The form of the equations we estimate is as follows:

$$H_{ist} = \alpha + LAW_s \cdot OLD_{ist}\beta + X_{ist}\delta + \sum_a A_a\omega_a + \sum_s S_s\theta_s + \sum_t T_t\rho_t + \varepsilon_{ist}.$$

The models include the individual-level (X) and other controls (A, for single-year age dummy variables) as before, with two differences. First, the models include fixed state effects (S) in addition to the fixed year effects (T). And second, rather than including interactions between all of the single-year age dummy variables and the indicator for a stronger state disability discrimination protection (LAW),[24] a simple interaction between the latter indicator and a dummy variable for older workers is included – using alternatively thresholds of 50, 55, and 60 (OLD). The state fixed effects subsume main effects of the disability discrimination law dummy variables, capturing differences among states in hiring rates of younger workers.[25] The LAW × OLD interactions then capture the differential effects of features of state disability discrimination protections on older versus younger workers. In some specifications we include interactions with a single dummy variable for one feature of the disability discrimination law, and in others we include these interactions for all three of these simultaneously. Under the assumption that

[24] We omit a time subscript because there are virtually no changes in the laws in our sample period, as noted earlier.
[25] This is not exactly true since as Table 1 shows there is one change, in Washington, in the definition of disability. So for specifications involving the definition of disability the main effect is included, although not reported in the table because we do not view it as reliable.

variation across states for younger workers does not reflect the effects of these protections, these LAW × OLD interactions capture the effects of the disability protections on older workers.

We use the SIPP data for this analysis because we need the younger workers as controls. We have an indication of what to expect from the earlier analysis of the SIPP data. For example, Panel A of Figure 3 (and column (3) of Table 3) suggested that stronger disability discrimination protections – in the form of a broader definition or larger damages – were associated with lower hiring of younger nondisabled workers, but less so for older nondisabled workers, at least using the work-limiting measure of disability. Thus, when we look at effects on older workers relative to younger workers, we should find positive effects.

The difference-in-differences estimates are reported in Table 5. In columns (1)-(3) we introduce each of our stronger features of state disability discrimination laws one at a time, and then in column (4) we introduce all three simultaneously. The estimates paint a rather clear picture. Regardless of what age threshold we use, state disability discrimination laws that use the broader definition of disability, and in some cases also those with larger damages, appear to raise, rather than to lower, hiring of nondisabled older workers. For the broader definition of disability this is true for each age threshold in column (1), and also for the 55 age threshold in column (4) where we use a more demanding specification that estimates the effect of the broader definition, larger damages, and a lower firm-size cutoff simultaneously. And the estimates are sizable, in the range of a 0.014 higher hiring rate. We find some similar evidence for state laws with larger damages, in two cases (column [2], for the age 50 and age 55 thresholds). We find no such evidence for a lower firm-size cutoff.

If this evidence implies that stronger disability discrimination protections increase hiring of nondisabled older workers, it is inconsistent with one of the conjectures with which we began – that such laws could deter hiring of older, nondisabled workers because employers fear they will become disabled and fall under these stronger protections. The evidence points in the opposite direction from this conjecture. A positive effect of stronger disability protections on the hiring of older nondisabled workers might seem counterintuitive. But the disability reflected in self reports need not be the same as the disabilities or characteristics of older workers that employers might perceive as making older workers likely to later qualify for protections under disability discrimination laws. Hence the increase in hiring of

those who do not self-report as disabled might still come among those with disabilities that, because of stronger disability discrimination protections, boost hiring of older workers with these disabilities.

To try to assess whether this result is sensitive to the definition of disability, in columns (1)-(4) of Table 6 we repeat this analysis – but using the different definition of disability based on self-reported fair or bad health. Fair or bad health could be more likely to be reflected in an employer's perception of the likelihood of future disabilities of older workers. The results, reported in Table 6, indicate that we no longer find significant positive effects of the stronger state laws with broader definitions of disability on the hiring or nondisabled older workers; the estimates are still positive, but smaller than in Table 4 and no longer statistically significant.

Thus, with this alternative definition of disability, the counterintuitive finding of strong disability discrimination protections helping nondisabled older workers is no longer present. The most significant and broader point, however, is that we find no evidence – in either analysis – of adverse effects of disability discrimination laws on older workers. Finally, note that some of earlier results using only cross-state variation (in Tables 3 and 4) gave some indication that stronger disability discrimination protections reduce hiring or older nondisabled workers. The difference-in-differences analysis, in contrast, gives no such indication.

One possible confounder is that age discrimination laws may affect outcomes for older and younger workers, and also be correlated with disability discrimination laws (see Table 1). To see whether this affects the conclusions from our difference-in-differences analysis, columns (5)-(8) of Tables 5 and 6 add interactions between our older worker thresholds and the two indicators of stronger age discrimination laws that were significant in the results reported in Neumark and Song (2013) – larger damages and a firm-size minimum of fewer than 10 employees.[26] The estimates for the effects of disability discrimination laws are similar in magnitude, indicating that they are robust to controlling separately for state age discrimination protections.

[26] There are a few more changes in age discrimination laws over the sample period, but still not enough to reliably identify the main effects (see Neumark and Song, 2013).

Finally, we have also re-estimated these models dropping 40-49 year-olds, to get a cleaner distinction between older ages at which disability is rising and younger ages when it is not (see Figure 1). The results are qualitatively very similar; results are reported in an appendix available upon request.

VI. Conclusions

We explore the effects of disability discrimination laws on hiring of older workers. These laws are, of course, supposed to help disabled workers find employment and remain employed, but there is a long-standing concern in the discrimination literature that antidiscrimination laws can have unintended, adverse effects on hiring by raising the cost of terminations and – in the specific case of disability discrimination laws – by raising the cost of employment because of the need to accommodate disabled workers. This unintended adverse effect could arise for disabled workers of any age, and indeed, could be stronger for younger disabled workers because of longer projected tenure with an employer. The new hypothesis we also explore in this paper – which has potentially larger implications for the challenge of extending work lives – is that disability discrimination laws can even deter hiring of *older* nondisabled workers, because the probability of developing a work-related disability is fairly high for older workers.

There is very little research on whether stronger antidiscrimination laws reduce hiring; the findings are inconsistent, and are limited to age discrimination laws. (There are, in contrast, a number of studies of the effects of antidiscrimination laws on *employment*.) We argue if there is an adverse effect of discrimination protections on hiring, it is most likely to arise for disability discrimination laws, because the accommodation requirements of disability laws can imply higher costs, and there are weaker defenses available to employers.

We use state variation in disability discrimination protections, which can strengthen the coverage of these laws by using a broader definition of disability than the ADA or applying to smaller firms, or can entail higher costs of discrimination via larger damages.

The evidence is somewhat nuanced and not always consistent across datasets, but does appear to support some conclusions. First, our best evidence suggests that stronger state disability discrimination

laws do not lower the hiring of nondisabled older workers, using either of two definitions of disability. And when we use a work-limiting measure of disability, we find some evidence that stronger disability discrimination laws based on using the broader definition of disability or larger damagers may boost their hiring. This evidence comes from difference-in-differences specifications that compare differences across states with stronger and weaker disability discrimination protections – estimating the effects for older nondisabled workers (who have high probabilities of becoming disabled) relative to younger nondisabled workers (for whom these probabilities are low). All of this evidence is inconsistent with the conjecture that such laws deter hiring of older, nondisabled workers because employers fear they will become disabled and fall under these stronger protections.

Evidence from cross-state variation in laws and hiring rates – which could be less likely to reflect causal effects – suggests that stronger state disability protections may reduce hiring of older, nondisabled workers, more consistent with this conjecture. However, this evidence on its own is not statistically or substantively strong, and it is contradicted by the difference-in-differences analysis using the SIPP. And there is no indication that stronger disability discrimination laws deter hiring of disabled workers.

Overall, we read the evidence as providing little or no evidence of adverse effects of disability discrimination laws on older workers – either from weaker tests we can use to study the disabled, or the more-compelling difference-in-differences tests we can use to study the nondisabled. Moreover, the latter evidence, which we view as most compelling, sometimes points to positive effects.

In our view, these results may also have more general implications for thinking about antidiscrimination laws. We have argued that there are unusual features of disability discrimination laws that make the unintended consequence of deterring hiring – in this case, for older workers – more likely. In that sense, this paper can be interpreted as a particularly informative test of the proposition that discrimination laws may end up reducing hiring of protected groups. That is, one might think that if labor economists were *ever* going to find evidence that a discrimination protection deters hiring, it would be for disability discrimination laws owing to the potential higher cost of employing this group, which is in addition to the potential higher termination costs that any antidiscrimination law can pose. Moreover, it might be strongest for nondisabled older workers for whom employers could fear future costs from disability, but who are not yet protected by disability discrimination laws. By the same token, the fact

that we do not find such evidence could be viewed as mitigating the concern that antidiscrimination laws have the unintended consequence of deterring hiring from the groups protected by these laws.

On the other hand, one potential offset to this argument is that the potentially higher termination costs that discrimination protections generate may be less relevant for older workers who are unlikely to have long tenure with the employer anyway. This may explain why it was only in the period *after* the Great Recession that Neumark and Button (2014) found evidence that stronger age discrimination laws reduced hiring of older workers; in a period of extreme uncertainty about product and hence labor demand, employers may have been more concerned that they would want to terminate an older worker well before that worker wanted to leave the firm.

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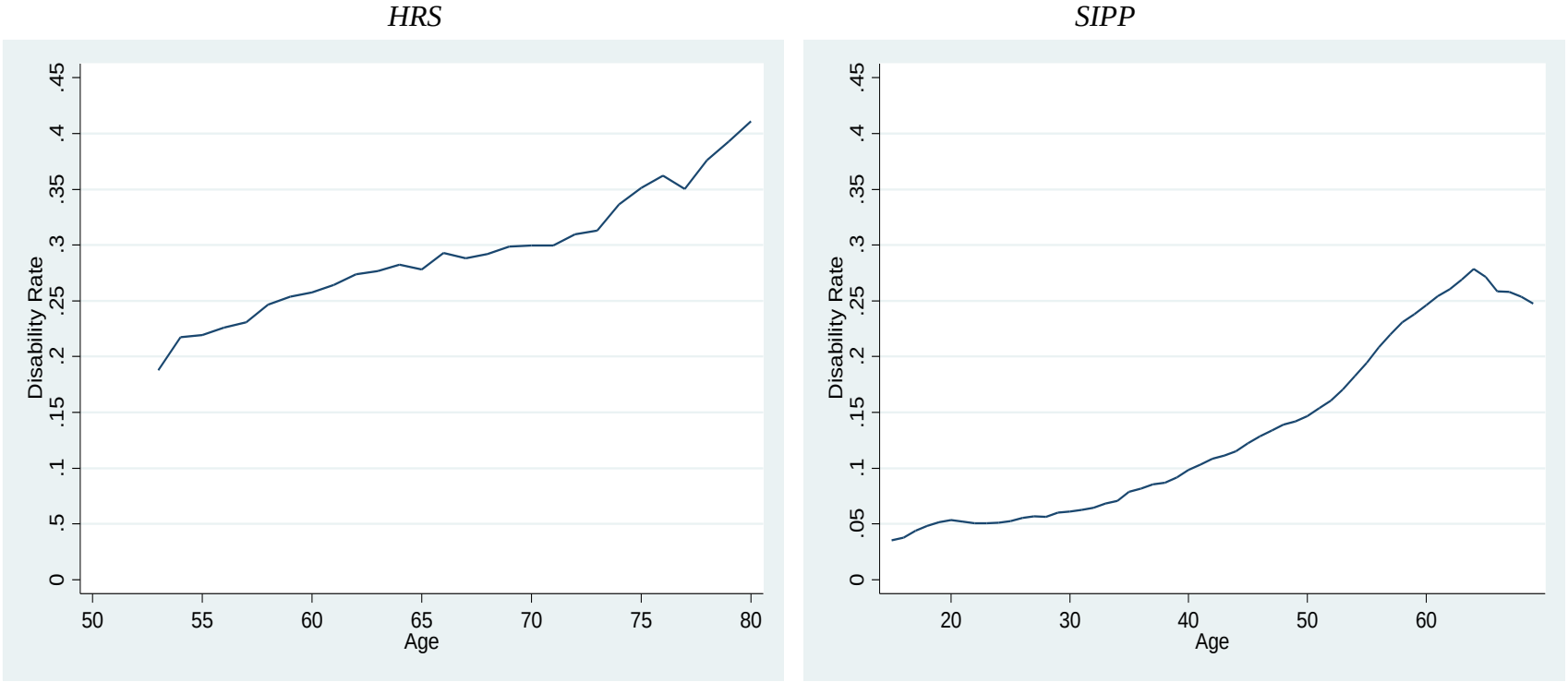
Figure 1: Disability by Age in HRS (Left) and SIPP (Right) Data

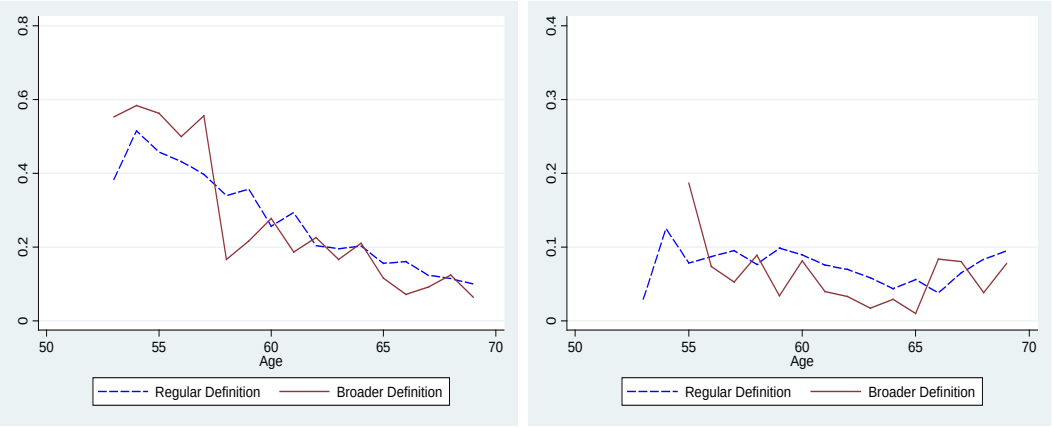


Notes: The disability rates are based on raw data, without adjustment. In the HRS, the disability definition is based on the question "Do you have any impairment or health problem that limits the kind or amount of paid work you can do?" In the SIPP, the disability definition is based on the question "[Do you] have a physical, mental, or other health condition that limits the kind or amount of work [you] can do? In the SIPP, this question is asked only for respondents aged 69 or younger.

Figure 2: HRS Hiring Rates (from Nonemployment) Using Inter-Wave Information, for Nondisabled and Disabled

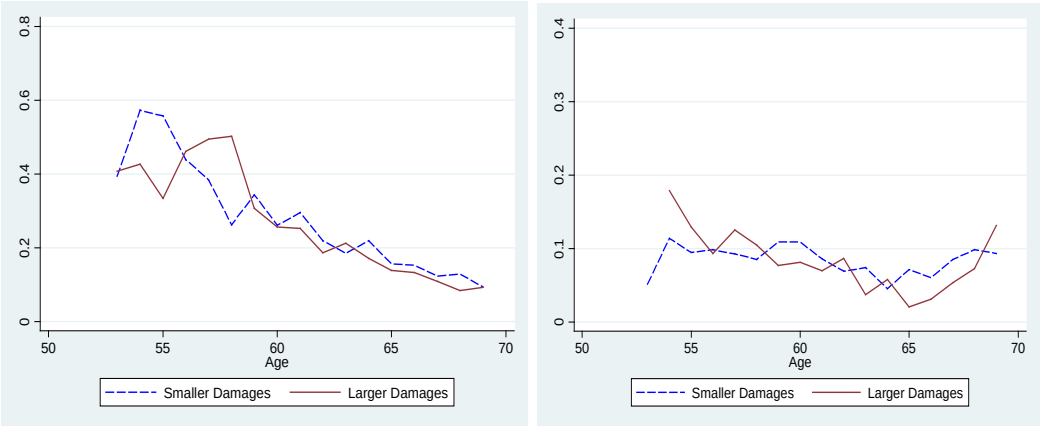
A. By Definition of Disability under Disability Discrimination Laws

Nondisabled *Disabled*



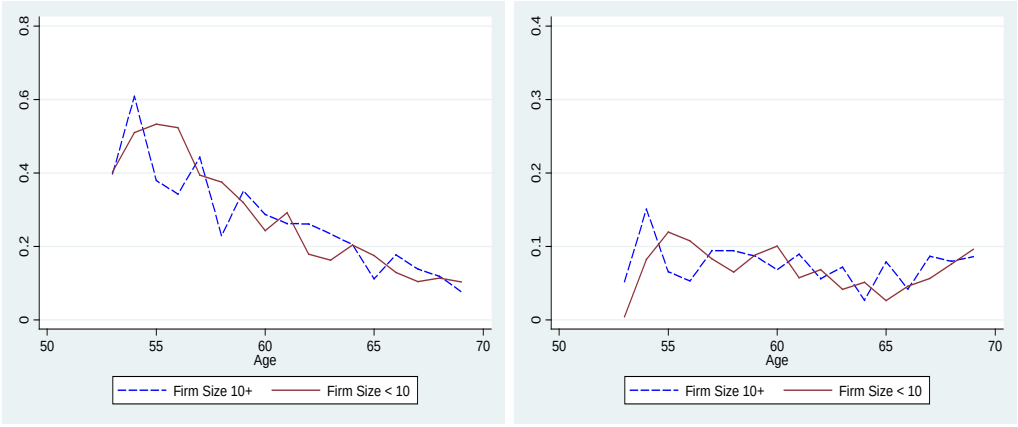
B. By Damages under Disability Discrimination Laws

Nondisabled *Disabled*



C. By Firm-Size Minimum under Disability Discrimination Laws

Nondisabled *Disabled*

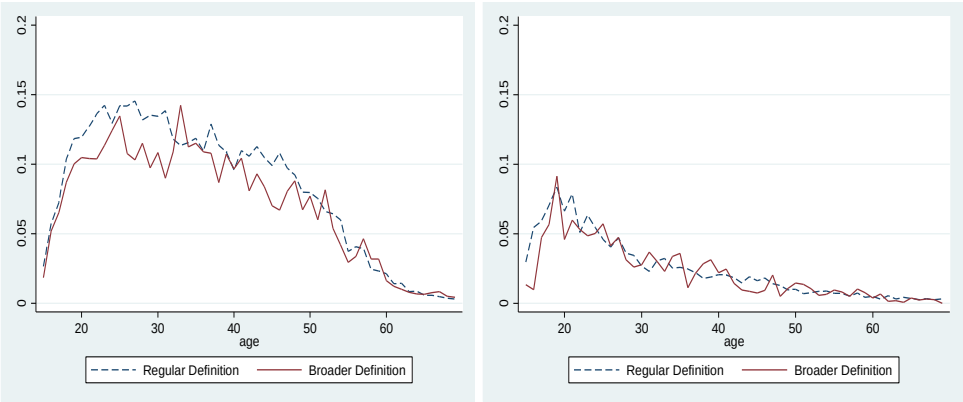


Notes: We use 1992-2008 HRS data for this analysis. HRS restricted data with state identifiers are used. The sample period for this analysis is 1992 through 2008. We restrict the sample to males who are 53 to 69 and use person-level HRS sampling weights. We use probit models to calculate the predicted hiring probability for each age group conditional on respondents being not working at t-1. The models are estimated separately for the nondisabled and the disabled. Each specification includes year fixed effects, single-year age dummy variables, and interactions between these age dummy variables and a dummy variable for the stronger disability discrimination protection indicated in the graph. The individual-level controls include urban-rural status, race, marital status, education level. Urban-rural status includes urban, suburban, or ex-urban residence; race includes white, black, and other; marital status includes married and married with spouse absent, partnered, separated/divorced/ widowed, and never married; education includes less than high school, GED or high school graduate, some college, and college and above. The predicted probability of hiring at each age is evaluated at the sample means of the controls. See the text and Table 1 for discussion and classification of states by characteristics of disability discrimination laws. See the notes to Figure 1 for the definition of disability in the HRS.

Figure 3: SIPP Hiring Rates (from Nonemployment), for Nondisabled and Disabled

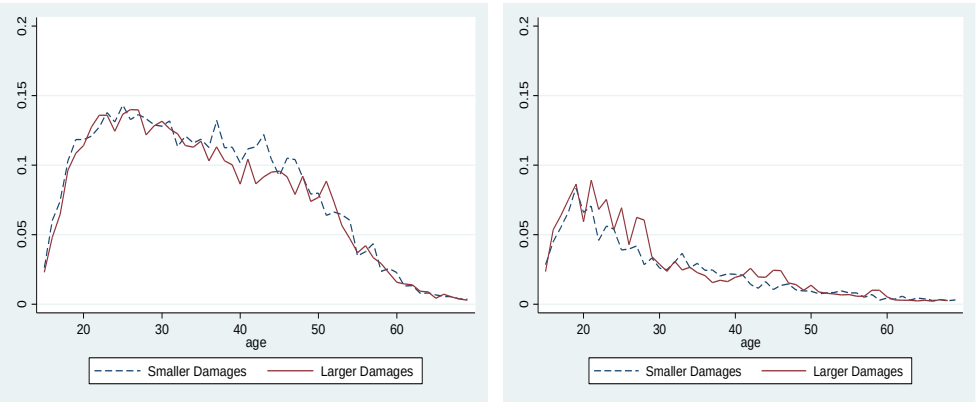
A. By Definition of Disability under Disability Discrimination Laws

Nondisabled *Disabled*



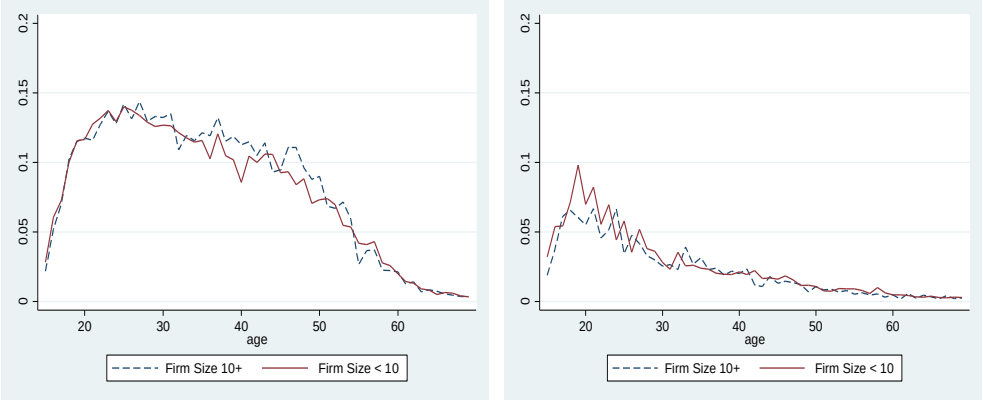
B. By Damages under Disability Discrimination Laws

Nondisabled *Disabled*



C. By Firm-Size Minimum under Disability Discrimination Laws

Nondisabled *Disabled*



Notes: We use SIPP 1992, 1993, 1996, 2001, and 2004 for this analysis, so the sample period for this analysis is October, 1991 through December, 2007. We use probit models to calculate the predicted hiring probability for each age group conditional on respondents being not working at t-1. The models are estimated separately for the nondisabled and the disabled. We restrict the sample to adult males who are 15 or older and use person-level SIPP sampling weights. Each specification includes year fixed effects, single-year age dummy variables, and interactions between these age dummy variables and a dummy variable for the stronger disability discrimination protection indicated in the graph. The individual level controls include education, marital status, SMSA status, and race. Education includes high school graduate, some college, and college; marital status includes married, widowed, divorced; SMSA status includes metropolitan, and not-identified; race includes black, Asian, or other. All analyses include a dummy variable whether the hiring occurred during the last month of each wave to control for the seam bias. The predicted probability of hiring at each age is evaluated at the sample means of the controls. The disability definition is based on self-reported variable "[Do you] have a physical, mental, or other health condition that limits the kind or amount of work [you] can do?" This question is asked only for those 69 years or younger. See the text and Table 1 for discussion and classification of states by characteristics of disability discrimination laws. See the notes to Figure 1 for the definition of disability in the SIPP.

Table 1: State Disability and Age Discrimination Laws, 2008

	Disability discrimination laws			Age discrimination laws	
State	Minimum firm size	Broader definition of disability	Larger damages than ADA	Minimum firm size	Larger damages than ADEA
Alabama	No law	No law	No law	20	No
Alaska	1	No	Yes	1	Yes
Arizona	15	No	No (no punitive)	15	No
Arkansas	9	No	No (same as ADA)	No law	No law
California	5	No ("limits" only, effective 2001)	Yes (uncapped)	5	Yes
Colorado	1	No	No (same as ADA)	1	No
Connecticut	3	Yes	No (no punitive)	3	No
Delaware	15	No	No (same as ADA)	4	Yes
D.C.	1	No	Yes (uncapped)	1	Yes
Florida	15	No	No (punitive capped at $100k)	15	Yes
Georgia	15	No	No (no punitive)	1	No
Hawaii	1	No	Yes (uncapped)	1	Yes
Idaho	5	No	No (punitive capped at $10k)	5	Yes
Illinois	15	Yes	No (no punitive)	15	Yes
Indiana	15 (was 25 before July 25, 1994)	No	No (no punitive)	1	No
Iowa	4	No	No (no punitive)	4	Yes
Kansas	4	No	No (damages capped at $2k)	4	Yes
Kentucky	15	No	No (no punitive)	8	Yes
Louisiana	20	No	No (no punitive)	20	Yes
Maine	1	No	Yes	1	Yes
Maryland	15	No	No (same as ADA)	15	Yes
Massachusetts	6	No	Yes (uncapped)	6	Yes
Michigan	1	No	No (no punitive)	1	Yes
Minnesota	1	No ("materially limits" only)	No (punitive capped at $25k)	1	Yes
Mississippi	No law	No law	No law	No law	No law
Missouri	6	No	Yes (uncapped)	6	Yes
Montana	1	No	No (no punitive)	1	Yes
Nebraska	15	No	No (no punitive)	20	No
Nevada	15	No	Yes	15	No
New Hampshire	6	No	No (no punitive)	6	Yes
New Jersey	1	Yes	Yes (uncapped)	1	Yes
New Mexico	4	No	No (no punitive)	4	Yes
New York	4	Yes	No (no punitive)	4	Yes
North Carolina	15	No	Yes	15	No
North Dakota	1	No	No (no damages)	1	No
Ohio	4	No	Yes (uncapped)	4	Yes
Oklahoma	15	No	No (no punitive)	15	No
Oregon	1	No	Yes (uncapped)	1	Yes
Pennsylvania	4	No	No (no punitive)	4	No
Rhode Island	4	No	Yes (uncapped)	4	Yes
South Carolina	15	No	No (same as ADA)	15	No
South Dakota	1	No	No (no punitive)	No law	No law
Tennessee	8	No	No (no punitive)	8	Yes
Texas	15	No	No (same as ADA)	15	Yes
Utah	15	No	No (no punitive)	15	No
Vermont	1	No	Yes (uncapped effective May 13, 1999, previously no punitive damages)	1	Yes
Virginia	5	No	No (no punitive)	5	No
Washington	8	Yes (effective May 4, 2007)	No (no punitive)	8	Yes
West Virginia	12	No	Yes (uncapped)	12	No
Wisconsin	1	No	No (no damages)	1	No

	Disability discrimination laws			Age discrimination laws	
State	Minimum firm size	Broader definition of disability	Larger damages than ADA	Minimum firm size	Larger damages than ADEA
Wyoming	2	No	No (no punitive)	2	No

Notes: State laws are as of 2008. Age discrimination laws from Neumark and Song (2013). For the states listed as "Yes" under Larger Damages than ADA, but not uncapped, detailes are as follow: Alaska – uncapped compensatory damages, punitive damages capped above ADA levels; Maine – exceeds ADA cap for firms of 201+ employees; Nevada – uncapped compensatory damages except against government, punitive damages capped at maximum of $300k and three times compensatory damages; North Carolina – uncapped compensatory damages except against government, punitive damages capped at maximum of $250k and three times compensatory damages.

Table 2: HRS and SIPP Descriptive Statistics

	HRS			SIPP			
	Age 53 - 69			Full sample (age 15 to 69)		Age 53 to 69	
	Nondisabled (1)	Disabled (2)		Nondisabled (1)	Disabled (2)	Nondisabled (1)	Disabled (2)
Dependent variable:							
Hired from non-employment	0.217 (0.008)	0.079 (0.005)	Hired from non-employment	0.070 (0.0004)	0.016 (0.0003)	0.019 (0.0004)	0.006 (0.0002)
Individual-level controls:							
High school	0.355 (0.008)	0.380 (0.009)	High school	0.253 (0.001)	0.339 (0.001)	0.330 (0.001)	0.315 (0.002)
Some college	0.227 (0.076)	0.192 (0.008)	Some college	0.185 (0.001)	0.168 (0.001)	0.196 (0.001)	0.158 (0.001)
College	0.256 (0.008)	0.118 (0.006)	College	0.116 (0.0004)	0.066 (0.001)	0.223 (0.001)	0.083 (0.001)
Partnered (Unmarried)	0.044 (0.004)	0.048 (0.005)	Married	0.316 (0.001)	0.467 (0.001)	0.778 (0.001)	0.659 (0.002)
Divorced	0.164 (0.007)	0.239 (0.009)	Widow	0.016 (0.0002)	0.029 (0.0004)	0.054 (0.001)	0.053 (0.001)
Single	0.048 (0.005)	0.062 (0.005)	Divorced	0.073 (0.0004)	0.189 (0.001)	0.110 (0.001)	0.195 (0.001)
Black	0.081 (0.004)	0.154 (0.006)	Black	0.173 (0.001)	0.199 (0.001)	0.091 (0.001)	0.144 (0.001)
Other race	0.032 (0.003)	0.047 (0.004)	Asian	0.045 (0.0003)	0.022 (0.0003)	0.024 (0.0004)	0.023 (0.001)
Suburban	0.234 (0.007)	0.246 (0.008)	Other race	0.011 (0.0001)	0.017 (0.0003)	0.005 (0.0001)	0.015 (0.0004)
Ex-urban	0.314 (0.008)	0.394 (0.009)	Metro	0.780 (0.001)	0.716 (0.001)	0.751 (0.001)	0.698 (0.002)
			On seam	0.260 (0.001)	0.259 (0.001)	0.257 (0.001)	0.259 (0.001)
N	5,240	4,802	N	746,676	312,098	205,110	153,164

Notes: Standard errors of means are reported in parentheses. Person-level sampling weights are used.

Table 3: Estimation Results and Significance Tests for Disability Discrimination Law Provisions, Hiring from Nonemployment

		Broader definition of disability				Larger damages				Firm-size minimum < 10			
		HRS		SIPP		HRS		SIPP		HRS		SIPP	
		Non-disabled (1)	Disabled (2)	Non-disabled (3)	Disabled (4)	Non-disabled (5)	Disabled (6)	Non-disabled (7)	Disabled (8)	Non-disabled (9)	Disabled (10)	Non-disabled (11)	Disabled (12)
Age 20-29	Avg. diff.	...	...	-0.024	-0.006	...	...	-0.001	0.014	...	...	0.0003	0.007
	% pos.			0%	40%			40%	80%			50%	80%
	p-value			0.000	0.000			0.197	0.225			0.361	0.061
Age 30-39	Avg. diff.	...	...	-0.011	0.003	...	...	-0.005	-0.004	...	...	-0.007	-0.002
	% pos.			10%	60%			20%	30%			10%	40%
	p-value			0.000	0.000			0.239	0.485			0.115	0.149
Age 40-49	Avg. diff.	...	...	-0.017	-0.003	...	...	-0.013	0.005	...	...	-0.011	0.002
	% pos.			10%	40%			20%	80%			10%	70%
	p-value			0.000	0.000			0.201	0.017			0.000	0.200
Age 50-61	Avg. diff.	...	...	-0.002	0.002	...	...	0.0001	0.001	...	...	0.002	0.002
	% pos.			33.3%	67.7%			50%	50%			66.7%	83.3%
	p-value			0.000	0.000			0.000	0.003			0.023	0.243
Age 62-69	Avg. diff.	-0.023	-0.016	0.0003	-0.001	-0.019	-0.013	0.0001	-0.001	-0.019	-0.008	0.0002	-0.0001
	% pos.	37.5%	25.0%	62.5%	12.5%	12.5%	37.5%	62.5%	25%	22.2%	44.4%	50.0%	62.5%
	p-value	0.694	0.396	0.000	0.000	0.860	0.504	0.319	0.952	0.221	0.417	0.000	0.545
Age 40-52	Avg. diff.	…	…	-0.014	0.001	...	...	-0.008	0.004	...	...	0.0002	0.002
	% pos.			15.4%	53.8%			30.8%	76.9%			23.1%	61.5%
	p-value			0.000	0.000			0.000	0.000			0.000	0.083
Age 53-61	Avg. diff.	0.019	-0.003	-0.003	0.001	-0.007	0.014	-0.003	0.0005	0.033	-0.005	-0.010	0.002
	% pos.	66.7%	28.6%	33.3%	55.6%	44.4%	50%	44.4%	44.4%	62.5%	50.0%	66.7%	100%
	p-value	0.539	0.509	0.001	0.000	0.418	0.976	0.001	0.010	0.690	0.442	0.039	0.759
Age 53-69	Avg. diff.	-0.001	-0.011	-0.001	-0.0003	-0.013	-0.000	-0.002	-0.0001	0.008	-0.007	0.001	0.001
	% pos.	52.9%	26.7%	47.1%	35.3%	29.4%	43.8%	52.9%	35.3%	41.2%	47.1%	58.8%	82.4%
	p-value	0.704	0.469	0.000	0.000	0.729	0.890	0.000	0.001	0.437	0.452	0.000	0.307

Notes: The estimates and tests in this table are based on the model estimates used to construct Figures 2 and 3. See notes to Figures 2 and 3 for details. For each age range, in each entry the table reports: (1) the average across the covered ages of the estimated differences in hiring rates between states with stronger and weaker disability discrimination laws; (2) the share of ages in the range for which the estimated hiring rate is higher with the stronger law; and (3) p-values for a joint (Wald) test of no difference for each age in the range between states with and without the stronger law.

Table 4: Estimation Results and Significance Tests for Disability Discrimination Law Provisions, Hiring from Nonemployment, Substituting Fair or Bad Health as a Disability Measure

		Broader definition of disability				Larger damages				Firm-size minimum < 10			
		HRS		SIPP		HRS		SIPP		HRS		SIPP	
		Non-disabled (1)	Disabled (2)	Non-disabled (3)	Disabled (4)	Non-disabled (5)	Disabled (6)	Non-disabled (7)	Disabled (8)	Non-disabled (9)	Disabled (10)	Non-disabled (11)	Disabled (12)
Age 20-29	Avg. diff.	...	...	-0.017	-0.004	...	...	0.001	0.011	...	...	0.0003	0.005
	% pos.			10%	30%			60%	80%			50%	70%
	p-value			0.000	0.000			0.271	0.002			0.221	0.064
Age 30-39	Avg. diff.	...	...	-0.005	0.005	...	...	-0.002	0.0004	...	...	-0.007	-0.003
	% pos.			30%	60%			30%	60%			10%	40%
	p-value			0.000	0.000			0.005	0.445			0.034	0.059
Age 40-49	Avg. diff.	...	...	-0.014	0.001	...	...	-0.002	0.002	...	...	-0.008	-0.0003
	% pos.			0%	50%			30%	60%			10%	50%
	p-value			0.000	0.000			0.038	0.095			0.049	0.498
Age 50-61	Avg. diff.	...	...	0.001	0.002	...	...	-0.001	0.002	...	...	-0.001	0.002
	% pos.			58.0%	41.7%			50%	66.7%			50%	83.3%
	p-value			0.000	0.000			0.000	0.196			0.047	0.044
Age 62-69	Avg. diff.	-0.029	-0.008	0.0003	-0.001	-0.024	0.005	-0.0004	-0.0004	-0.002	0.004	0.000	0.0004
	% pos.	14.3%	42.9%	62.5%	50%	12.5%	57.1%	37.5%	37.5%	12.5%	50%	75%	62.5%
	p-value	0.694	0.396	0.000	0.000	0.860	0.504	0.191	0.000	0.221	0.417	0.021	0.000
Age 40-52	Avg. diff.	…	…	-0.010	0.002	...	...	-0.001	0.003	...	...	-0.008	0.0004
	% pos.			15.4%	46.2%			38.5%	69.2%			23.1%	61.5%
	p-value			0.000	0.000			0.000	0.014			0.024	0.505
Age 53-61	Avg. diff.	-0.015	-0.029	-0.0004	0.001	-0.028	0.010	-0.004	0.0004	0.023	0.020	0.000	0.002
	% pos.	16.7%	66.7%	55.6%	44.4%	33.3%	44.4%	44.4%	55.6%	44.4%	75%	44.4%	77.8%
	p-value	0.539	0.509	0.000	0.000	0.418	0.976	0.008	0.363	0.690	0.442	0.331	0.141
Age 53-69	Avg. diff.	-0.033	-0.020	-0.0001	-0.0001	-0.026	0.009	-0.002	0.000	0.002	0.013	0.0001	0.001
	% pos.	15.4%	53.8%	58.8%	47.1%	23.5%	50%	41.2%	47.1	29.4%	62.5%	58.8%	70.6%
	p-value	0.704	0.469	0.000	0.000	0.729	0.890	0.000	0.000	0.437	0.452	0.000	0.000

Notes: Notes from Table 3 apply, with the exception that the definition of disability used is based on self-reported health being fair or bad (and not good, very good, or excellent)

Table 5: Difference-in-Differences Estimates of Effects of Stronger Disability Discrimination Laws on Hiring of Nondisabled Older Workers, SIPP Data, Hiring from Nonemployment

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age ≥ 50 × broader definition of disability	0.016**	…	…	0.017	0.016**	…	…	0.019**
	(0.007)			(0.008)	(0.006)			(0.008)
Age ≥ 50 × larger damages	…	0.010**	…	0.011	…	0.008	…	0.012**
		(0.005)		(0.005)		(0.006)		(0.006)
Age ≥ 50 × firm size < 10	…	…	0.008	0.002	…	…	0.002	-0.004
			(0.005)	(0.004)			(0.005)	(0.005)
Age ≥ 50 × age disc. larger damages	…	…	…	…	-0.001	0.0003	0.002	-0.003
					(0.005)	(0.005)	(0.005)	(0.004)
Age ≥ 50 × age disc. firm size < 10	…	…	…	…	0.008	0.006	0.006	0.009*
					(0.005)	(0.005)	(0.005)	(0.004)
Age ≥ 55 × broader definition of disability	0.016**	…	…	0.016**	0.015**	…	…	0.018**
	(0.007)			(0.007)	(0.006)			(0.008)
Age ≥ 55 × larger damages	…	0.008*	…	0.008	…	0.006	…	0.009
		(0.005)		(0.005)		(0.005)		(0.006)
Age ≥ 55 × firm size < 10	…	…	0.009*	0.004	…	…	0.002	-0.003
			(0.005)	(0.005)			(0.004)	(0.004)
Age ≥ 55 × age disc. larger damages	…	…	…	…	-0.002	-0.0004	0.0004	-0.004
					(0.005)	(0.006)	(0.005)	(0.005)
Age ≥ 55 × age disc. firm size < 10	…	…	…	…	0.010*	0.008	0.008	0.010**
					(0.005)	(0.006)	(0.005)	(0.004)
Age ≥ 60 × broader definition of disability	0.012*	…	…	0.013	0.013**	…	…	0.015**
	(0.006)			(0.007)	(0.005)			(0.007)
Age ≥ 60 × larger damages	…	0.007	…	0.008	…	0.006	…	0.009*
		(0.004)		(0.004)		(0.006)		(0.005)
Age ≥ 60 × firm size < 10	…	…	0.004	0.0003	…	…	-0.002	-0.007**
			(0.005)	(0.005)			(0.003)	(0.003)
Age ≥ 60 × age disc. larger damages	…	…	…	…	-0.004	-0.002	-0.001	-0.005
					(0.004)	(0.005)	(0.004)	(0.004)
Age ≥ 60 × age disc. firm size < 10	…	…	…	…	0.006	0.005	0.008	0.010***
					(0.004)	(0.005)	(0.004)	(0.004)
N	312,224	312,224	312,224	312,224	312,224	312,224	312,224	312,224

Notes: The linear probability model is used for estimation conditional on respondents begin not working at t-1. Standard errors reported in parentheses are clustered at the state level. ***, **, and * indicate that the estimates are statistically significant at the one-, five-, or ten-percent level. Each panel reports estimates of separate specification using the different specified age groups. The models are estimated separately for the nondisabled and the disabled. We use the SIPP 1992, 1993, 1996, 2001, and 2004 panels for this analysis, so the sample period is October 1991 through December 2007. We restrict the sample to adult males who are 31 or older and use person-level SIPP sampling weights. Each specification includes state and year fixed effects, single-year age dummy variables, and the same individual-level controls described in the notes to

Figure 3. All analyses include a dummy variable whether the hiring occurred during the last month of each wave to control for the seam bias. The main effects of the discrimination law dummy variables are not reported as they are either subsumed in the state fixed effects or identified from a very small number of states and hence are not reliable. Maine, Vermont, North Dakota, South Dakota, and Wyoming are deleted from the sample because they are not uniquely identified in SIPP 1992, 1993, 1996 and 2001 panels. The disability definition is based on self-reported variable "[Do you] have a physical, mental, or other health condition that limits the kind or amount of work [you] can do?" This question is asked only for those 69 years or younger. See the text and Table 1 for discussion and classification of states by characteristics of disability (and age) discrimination laws.

Table 6: Difference-in-Differences Estimates of Effects of Stronger Disability Discrimination Laws on Hiring of Nondisabled Older Workers, SIPP Data, Hiring from Nonemployment, Substituting Fair or Bad Health as a Disability Measure

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age ≥ 50 × broader definition of disability	0.012 (0.008)	…	…	0.012 (0.008)	0.012 (0.007)	…	…	0.012 (0.008)
Age ≥ 50 × larger damages	…	0.003 (0.005)	…	0.003 (0.005)	…	0.001 (0.006)	…	0.003 (0.006)
Age ≥ 50 × firm size < 10	…	…	0.007 (0.004)	0.005 (0.004)	…	…	0.007 (0.005)	0.005 (0.005)
Age ≥ 50 × age disc. larger damages	…	…	…	…	0.001 (0.004)	0.003 (0.005)	0.002 (0.004)	0.000 (0.004)
Age ≥ 50 × age disc. firm size < 10	…	…	…	…	0.004 (0.004)	0.004 (0.005)	-0.001 (0.004)	-0.0003 (0.004)
Age ≥ 55 × broader definition of disability	0.010 (0.008)	…	…	0.010 (0.008)	0.010 (0.008)	…	…	0.010 (0.008)
Age ≥ 55 × larger damages	…	0.003 (0.005)	…	0.002 (0.006)	…	0.001 (0.006)	…	0.002 (0.006)
Age ≥ 55 × firm size < 10	…	…	0.008 (0.005)	0.006 (0.005)	…	…	0.006 (0.004)	0.004 (0.004)
Age ≥ 55 × age disc. larger damages	…	…	…	…	-0.001 (0.004)	0.001 (0.005)	0.0001 (0.004)	-0.002 (0.004)
Age ≥ 55 × age disc. firm size < 10	…	…	…	…	0.007 (0.004)	0.007 (0.006)	0.001 (0.004)	0.002 (0.004)
Age ≥ 60 × broader definition of disability	0.008 (0.007)	…	…	0.007 (0.007)	0.008** (0.006)	…	…	0.008 (0.007)
Age ≥ 60 × larger damages	…	0.002 (0.004)	…	0.002 (0.004)	…	0.001 (0.005)	…	0.002 (0.005)
Age ≥ 60 × firm size < 10	…	…	0.005 (0.004)	0.004 (0.005)	…	…	0.003 (0.003)	0.001 (0.003)
Age ≥ 60 × age disc. larger damages	…	…	…	…	-0.002 (0.003)	-0.001 (0.004)	-0.001 (0.003)	-0.003 (0.004)
Age ≥ 60 × age disc. firm size < 10	…	…	…	…	0.005 (0.004)	0.005 (0.004)	0.002 (0.003)	0.003 (0.003)
N	322,110	322,110	322,110	322,110	322,110	322,110	322,110	322,110

Notes: Notes from Table 5 apply, with the exception that the definition of disability used is based on self-reported health being fair or bad (and not good, very good, or excellent).

Appendix Table A1: Relationships between Alternative Disability Measures, Difficulties in Activities, Functional Limitations, and Doctor-Diagnosed Medical Problems

	Various difficulties in activities and instrumental activities in daily living											
	Walking across room	Dressing	Bathing	Eating	Getting in and out of bed	Using toilet	Using map	Using phone	Managing money	Taking medicine	Grocery shopping	Preparing meals
Health limits work												
No	1.07%	2.52%	1.13%	0.44%	1.43%	1.28%	8.77%	1.12%	1.95%	0.96%	1.53%	1.05%
Yes	19.16%	24.49%	19.77%	9.68	18.05%	15.77%	25.49%	12.13%	17.12%	10.26%	27.31%	19.27%
Fair/bad health												
No	2.61%	4.21%	2.77%	1.22%	2.34%	2.49%	9.82%	2.33%	3.65%	1.8%	4.21%	2.94%
Yes	20.29%	24.81%	20.41%	9.81%	18.65%	15.53%	27.35%	12.39%	17.53%	10.72%	28.14%	19.85%

	Functional limitations											
	Walking several blocks	Jogging one mile	Walking one block	Sitting for 2 hours	Getting up from chair	Climbing several flights of stairs	Climbing one flight of stairs	Stooping, kneeling, crouching	Lifting, carrying 10 lbs.	Picking up a dime	Reaching or extending arms up	Pushing or pulling large objects
Health limits work												
No	11.45%	54.35%	3.53%	11.18%	24.98%	28.15%	6.00%	29.01%	9.23%	2.83%	7.66%	11.03%
Yes	63.29%	86.99%	35.91%	37.14%	64.85%	76.66%	41.66%	73.38%	53.01%	15.6%	34.38%	56.87%
Fair/bad health												
No	16.40%	57.92%	6.05%	12.95%	28.76%	32.44%	8.79%	33.91%	13.44%	3.97%	9.40%	15.44%
Yes	62.83%	77.47%	36.75%	35.15%	62.70%	76.00%	43.88%	69.62%	51.68%	15.64%	34.37%	54.74%

	Doctor-diagnosed medical problems							
	High blood pressure	Diabetes	Cancer	Lung disease	Heart problem	Stroke	Psychological problem	Arthritis
Health limits work								
No	44.86%	13.01%	9.57%	5.11%	14.00%	2.99%	9.57%	44.20%
Yes	64.13%	26.49%	15.72%	18.16%	36.07%	13.79%	28.48%	73.66%
Fair-bad health								
No	45.66%	12.09%	10.24%	5.60%	15.92%	3.95%	10.49%	46.91%
Yes	66.77%	29.97%	16.62%	18.9%	38.62%	14.56%	27.3%	68.81%

Notes: These calculations are based on HRS raw data, without adjustment. We are reporting conditional distribution of "health limits work" and "fair/bad health" for respondents who report having difficulty doing the specified activities or specified doctor-diagnosed medical problems.

Disability Laws Appendix

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Definition of Disability

Some state laws bypass the requirement that a mental or physical impairment "substantially limits" one or more major life activities. This occurs either by replacing "substantially limits" with either just "limits" (California) or "materially limits" (Minnesota), or by defining disability as a medical diagnosis (Connecticut, Illinois, New Jersey, New York, Washington effective May 4, 2007). These state laws are discussed in more detail below.

California

California adopts a similar definition of disability to the ADA, but specifies in statute that the impairment must "limit" instead of "substantially limit" a major life activity. For mental disability this is described as "Having any mental or psychological disorder or condition, such as intellectual disability, organic brain syndrome, emotional or mental illness, or specific learning disabilities, that limits a major life activity" (CAL GOV CODE § 12926 (j)(1)). The language is similar for physical disability.

Although dropping the word "substantially" may seem trivial, this did in fact make establishing that a disability exists less burdensome, but not initially. The Prudence Kay Poppink Act took effect in California in 2001, and this act made it explicit that the "limits" requirement in California was less burdensome than the federal ADA. Before this act passed however, the "limits" requirement was interpreted in the same way as the federal ADA (Long, 2004). For example, in Colmenares v. Braemer Country Club, Inc., 63 P.3d 220, 223 (Cal. 2003), the plaintiff was deemed not disabled because his case preceded the Poppink Act, when California's "limits" was interpreted the same as the ADA's "substantially limits." However, other decisions claimed that the Poppink Act applied retroactively.[1]

Connecticut

In Connecticut, a diagnosis of a physical or mental impairment makes the individual disabled under law, bypassing the "substantially limits" requirement. CONN. GEN. STAT. § 46a-51(15). states that "'Physically disabled' refers to any individual who has any chronic physical handicap, infirmity or impairment, whether congenital or resulting from bodily injury, organic processes or changes or from illness, including, but not limited to, epilepsy, deafness or hearing impairment or reliance on a wheelchair or other remedial appliance or device."

Connecticut is even more explicit in its definition of mental disability (Long, 2004), as CONN. GEN. STAT. § 46a-51(20) states that " 'Mental disability' refers to an individual who has a record of, or is regarded as having one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's 'Diagnostic and Statistical Manual of Mental Disorders.'"

Illinois

775 ILL. COMP. STAT. 5/1-103(I) defines a disability as "…a determinable physical or mental characteristic of a person, including, but not limited to, a determinable physical characteristic which necessitates the person's use of a guide, hearing or support dog, the history of such characteristic, or the perception of such characteristic by the person complained against, which may result from disease, injury, congenital condition of birth or functional disorder…"

Minnesota

Similar to California, MINN. STAT. § 363.01(12) defines disability as "…any condition or characteristic that renders a person a disabled person. A disabled person is any person who (1) has a physical, sensory, or mental impairment which materially limits one or more major life activities; (2) has a record of such an

[1] See http://www.larryminsky.com/article1.aspx (viewed February 2, 2015).

impairment; or (3) is regarded as having such an impairment." While the distinction between materially and substantially may seem trivial, Long (2004) notes that the Minnesota Supreme Court, in Sigurdson v. Carl Bolander & Sons, Co., 532 N.W.2d 225, 228 n.3 (Minn. 1995), stated that the Minnesota definition is less stringent.

New Jersey

N.J. STAT. ANN. § 10:5-5(q) defines disability as a "…physical disability, infirmity, malformation or disfigurement which is caused by bodily injury, birth defect or illness including epilepsy and other seizure disorders, and which shall include, but not be limited to, any degree of paralysis, amputation, lack of physical coordination, blindness or visual impediment, deafness or hearing impediment, muteness or speech impediment or physical reliance on a service or guide dog, wheelchair, or other remedial appliance or device, or any mental, psychological or developmental disability, including autism spectrum disorders, resulting from anatomical, psychological, physiological or neurological conditions which prevents the normal exercise of any bodily or mental functions or is demonstrable, medically or psychologically, by accepted clinical or laboratory diagnostic techniques. Disability shall also mean AIDS or HIV infection."

New York

New York's Executive Law § 292(21)(a) defines a disability as "a physical, mental or medical impairment resulting from anatomical, physiological, genetic or neurological conditions which prevents the exercise of a normal bodily function or is demonstrable by medically accepted clinical or laboratory diagnostic techniques." The requirement that the impairment be "demonstrable by medically accepted clinical or laboratory diagnostic techniques" bypasses the "substantially limits" requirement and makes New York disability discrimination law more broadly applicable (Long, 2004).

Washington

Washington's definition of disability was rather vague before an amendment, effective May 4, 2007, changed Washington's definition to follow a medical diagnosis definition like Connecticut, Illinois, New Jersey, and New York. Prior to this amendment, WASH. REV. CODE § 49.60.180 prohibited discrimination on the basis of physical disability, but the term was not defined. Noting this, Long (2004) could not categorize Washington's laws and instead put them in a "miscellaneous" category. It appears that Washington's lack of definition caused courts to rely on the federal definition of disability, which included the "substantially limits" requirement.[2] After the 2007 amendment, Washington law states that "'Disability' means the presence of a sensory, mental, or physical impairment that:

(i) Is medically cognizable or diagnosable; or
(ii) Exists as a record or history; or
(iii) Is perceived to exist whether or not it exists in fact" (Wash. Rev. Code § 49.60.040 (7)(a)).

Compensatory and Punitive Damages

As discussed in the main text, we classify 15 states as having damages that exceed those provided by the ADA. Of these 15 larger damages states, four states (AK, ME, NV, NC) have compensatory and/or punitive damage caps that exceed those of the ADA, while the remaining eleven (CA, DC, HI, MA, MO, NJ, OH, OR, RI, VT, WV) have compensatory and punitive damages that are both uncapped. Of the 36 states that we classify as not having damages that exceed the ADA, six states (AR, CO, DE, MD, SC, TX) have the exact same damage caps as the ADA, four (FL, ID, KS, MN) have lower damage caps, 24 do not allow punitive damages (AZ, CT, GA, IA, IL, IN, KY, LA, MI, MT, NE, NH, NM, NY, ND, OK, PA,

[2] See Pulcino v. Fed. Express Corp., 9 P.3d 787, 794 (Wash. 2000) as discussed by Long (2004).

SD, TN, UT, VA, WA, WI, WY), and two (AL, MS) do not have an employment nondiscrimination law for disability.

States with Uncapped Compensatory and Punitive Damages

Ten states (CA, HI, MA, MO, NJ, OH, OR, RI, VT, and WV, plus DC) offer both compensatory and punitive damages that are uncapped. Determining that these damages were in fact uncapped was difficult. For all these states, statutes did not mention explicit caps on damages, nor was there explicit mention that damages were uncapped. While it seemed likely that these states allowed uncapped damages, we confirmed this conjecture with various sources.

California

California's employment nondiscrimination law is vague as to what damages are available, and this had to be clarified in case law. As mentioned by Defense Research Institute, Inc. (DRI, 2011, p. 27), the Fair Employment and Housing Act (Cal. Govt. Code §§12900–12996) provides no statutory caps on civil damages. The case Commodore Home Sys., Inc. v. Superior Court, 32 Cal. 3d 211, 221 (1982) concluded that allowable damages fell under Cal. Civ. Code, § 3294, which provides no caps.[3]

District of Columbia

As mentioned by DRI (2011, p. 67), D.C. law (D.C. Mun. Regs. 4 §§210–212) allows for both compensatory and punitive damages. Caps, or lack thereof, are not explicitly mentioned. DRI (2011, p. 67) confirms that there are in fact no caps.

Hawaii

Hawaii's employment nondiscrimination law states that compensatory and punitive damages are available, but no caps, or lack thereof, are explicitly mentioned (HI ST § 378-5, HI ST § 368-17). DRI (2011, p. 97) confirms that there are in fact no caps.

Massachusetts

Massachusetts' employment nondiscrimination law states that compensatory and punitive damages are available, but no caps, or lack thereof, are explicitly mentioned (MA ST 151B). These damages can only be obtained from trial court and not through the Massachusetts Commission Against Discrimination (MCAD) (DRI, 2011, p. 191) (Sperino, 2010).

Missouri

Missouri's employment nondiscrimination law states that compensatory and punitive damages are available, but no caps, or lack thereof, are explicitly mentioned (MO ST 213). According to case law mentioned by DRI (2011, p. 223) "…the Missouri Courts of Appeals have indicated that, in most situations, the courts should not allow punitive damages in excess of a single digit ratio to actual damages. State ex rel. Bass Pro Outdoor World, LLC v. Schneider, 302 S.W.3d 103 (Mo. App. 2009). At least one court has held, however, that in appropriate circumstances a punitive damage award could significantly exceed a single digit ratio. Lynn v. TNT Logistics North America, Inc., 275 S.W.3d 304 (Mo. App. 2008)" (Sperino, 2010).

[3] See http://scocal.stanford.edu/opinion/commodore-home-systems-inc-v-superior-court-28300 (viewed February 2,015).

New Jersey

New Jersey's employment nondiscrimination law states that "All remedies available in common law tort actions shall be available to prevailing plaintiffs" (N.J.S.A. 10:5-13). This includes compensatory and punitive damages (DRI, 2011, p. 254) but there is no explicit mention of caps, or lack thereof. Case law, such as Baker v. National State Bank, 801 A.2d 1158 (N.J. App. Div. 2002) indicates that these damages are uncapped (DRI, 2011, p. 253).

Ohio

According to DRI (2011, p. 311), uncapped compensatory and punitive damages are allowed under civil actions. These damages are capped if the case is handled by the Ohio Civil Rights Commission.

Oregon

Oregon's employment nondiscrimination law states: "The court may award, in addition to the relief authorized under subsection (1) of this section, compensatory damages or $200, whichever is greater, and punitive damages…" (OR ST § 659A.885(3)(a)). DRI (2011, p. 326) confirms that damages are uncapped, noting that there are caps only if the action is against a government entity.

Rhode Island

Rhode Island's employment nondiscrimination law states that: "Any person with a disability who is the victim of discrimination prohibited by this chapter may bring an action in the Superior Court against the person or entity causing the discrimination for equitable relief, compensatory and/or punitive damages or for any other relief that the court deems appropriate" (RI ST § 42-87-4). DRI (2011, p. 352) confirms that there are no caps, but notes that judges may intervene in cases when juries wish to award punitive damages that are deemed excessive, as in Mazzaroppi v. Tocco, 533 A.2d 203 (R.I. 1987).

Vermont

Vermont's employment nondiscrimination law states that: "Any person aggrieved by a violation of the provisions of this subchapter may bring an action in superior court seeking compensatory and punitive damages or equitable relief, including restraint of prohibited acts, restitution of wages or other benefits, reinstatement, costs, reasonable attorney's fees and other appropriate relief" (21 V.S.A. §495b). DRI (2011, p. 399) interprets this to mean that both compensatory and punitive damages are uncapped. The language "compensatory and punitive damages" was added by 1999, No. 19, § 5. Before this, the statute just said "damages" and it was left ambiguous if punitive damages were covered. This question was settled in Fernot v. Crafts Inn, Inc., 895 F. Supp. 668, 682 (D. Vt. 1995), where it was deemed that punitive damages were not allowed. Thus, we interpret that while Vermont has consistently had uncapped compensatory damages, punitive damages only became available (uncapped) effective on the amendment's approval on May 13, 1999. Since we use annual data we code the change as effective 2000.

West Virginia

West Virginia's employment nondiscrimination law does not directly state that compensatory and punitive damages are available. It states that remedies include: "…reinstatement or hiring of employees, granting of back pay or any other legal or equitable relief as the court deems appropriate. In actions brought under this section, the court in its discretion may award all or a portion of the costs of litigation, including reasonable attorney fees and witness fees, to the complainant" (W. Va. Code §5-11-13). DRI (2011, p. 428) deems punitive damages to be available, citing Haynes v. Rhone-Poulenc, Inc.,521 S.E.2d 331 (W. Va. 1999) as an example. The question of if compensatory damages were available was settled in State Human Rights Commission v. Pauley, 212 S.E.2d 77 (W. Va. 1975), where the West Virginia Supreme Court deemed compensatory damages to be available.

States with Caps that Exceed the ADA

Alaska

Alaska's damages, as described in AS § 09.17.020(h), exceed those of the ADA for all firm sizes:

"(h) Notwithstanding any other provision of law, in an action against an employer to recover damages for an unlawful employment practice prohibited by AS 18.80.220, the amount of punitive damages awarded by the court or jury may not exceed

(1) $200,000 if the employer has less than 100 employees in this state;
(2) $300,000 if the employer has 100 or more but less than 200 employees in this state;
(3) $400,000 if the employer has 200 or more but less than 500 employees in this state; and
(4) $500,000 if the employer has 500 or more employees in this state."

Maine

Maine's damages, as described in 5 M.R.S.A. §4613(2)(B)(8), exceed those of the ADA for firms with 201 or more employees.

"(e) The sum of compensatory damages awarded under this subparagraph for future pecuniary losses, emotional pain, suffering, inconvenience, mental anguish, loss of enjoyment of life, other nonpecuniary losses and the amount of punitive damages awarded under this section may not exceed for each complaining party:

(i) In the case of a respondent who has more than 14 and fewer than 101 employees in each of 20 or more calendar weeks in the current or preceding calendar year, $50,000;
(ii) In the case of a respondent who has more than 100 and fewer than 201 employees in each of 20 or more calendar weeks in the current or preceding calendar year, $100,000;
(iii) In the case of a respondent who has more than 200 and fewer than 501 employees in each of 20 or more calendar weeks in the current or preceding calendar year, $300,000; and
(iv) In the case of a respondent who has more than 500 employees in each of 20 or more calendar weeks in the current or preceding calendar year, $500,000."

Nevada

The section of the statute detailing employment nondiscrimination law does not discuss damages, but the statute describing damages in general does apply (NV ST 42.001).

"…Except as otherwise provided in this section or by specific statute, an award of exemplary or punitive damages made pursuant to this section may not exceed:

a) Three times the amount of compensatory damages awarded to the plaintiff if the amount of compensatory damages is $100,000 or more; or
b) Three hundred thousand dollars if the amount of compensatory damages awarded to the plaintiff is less than $100,000."

Compensatory damages are allowed and uncapped (Green 1992; Buckley and Green 1997, 2002, 2006, 2008, 2009, and 2011) while punitive damages are capped as described above, such that, regardless of firm size, punitive damages strictly exceed the sum of both punitive and compensatory damages available under the ADA.

North Carolina

Compensatory damages are allowed and uncapped (Perry, 2011), while punitive damages are capped pursuant to NC ST § 1D-25:

"§ 1D-25. Limitation of amount of recovery.

(a) In all actions seeking an award of punitive damages, the trier of fact shall determine the amount of punitive damages separately from the amount of compensation for all other damages.
(b) Punitive damages awarded against a defendant shall not exceed three times the amount of compensatory damages or two hundred fifty thousand dollars ($250,000), whichever is greater. If a trier of fact returns a verdict for punitive damages in excess of the maximum amount specified under this subsection, the trial court shall reduce the award and enter judgment for punitive damages in the maximum amount."

Theses damages exceed those under the ADA except in the extremely rare case where firm size is greater than 500 but compensatory damages are less than $50,000. In this case the ADA would allow slightly more punitive damages.

States with the Same Damage Caps as the ADA

Arkansas

The Arkansas Civil Rights Act (Ark. Code Ann. §§16-123-101 et seq.) specifies the same damage caps as the ADA (§§16-123-107(c)(2)(A)). However, since firms of size nine to 14 are also covered under this law, the damage cap for this group is set at $15,000.

Colorado

The Colorado Anti-Discrimination Act (C.R.S. §§24-34-301 et seq.) allows both compensatory and punitive damages, but explicitly mentions that they are capped at ADA levels (see 42 U.S.C. sec. 1981a(b)(3)). Since the firm size minimum is one, damage caps are $10,000 for one to four employees, and $25,000 for five to 14 employees (C.R.S. §§24-34-405(d)).

Delaware

The Delaware Discrimination in Employment Act (19 Del. C. §711 et seq.) specifies that damages are capped at the same level as Title VII of the Civil Rights Act of 1964, which are the same damage caps that apply to the ADA.

Maryland

The Maryland Fair Employment Practices Act (Md. Code Ann., State Gov't §20–601 et seq.) provides for the same damage caps as the ADA (Md. Code Ann., State Gov't §20–1009(3)). Prior to the passage of Acts 2007, c. 176, however, the Maryland Fair Employment Practices Act did not allow punitive damages.

South Carolina

The South Carolina Human Affairs Law (S.C. Code §§1-13-10 et seq.) does not explicitly mention compensatory or punitive damages. DRI (2011, p. 363) argues that the damages are identical to those under Title VII / ADA cases, noting case law which states: "Thus, Title VII cases which interpret provisions or procedures essentially identical to those of the Human Affairs Law are certainly persuasive if not controlling in construing the Human Affairs Laws" (Orr v. Clyburn, 290 S.E.2d 804 (S.C. 1982)).

Texas

The Texas Commission on Human Rights Act (Tex. Lab. Code §§21.001 et seq.) lists the same damage caps as the ADA.

States with Lower Damage Caps than the ADA

Florida

The Florida Civil Rights Act of 1992 (Fla. Stat. §§760.01 et seq.) allows uncapped compensatory damages, but it caps punitive damages at $100,000 (Fla. Stat. §§760.11(5)).

Idaho

Idaho allows "actual damages," and the statute does not mention caps, or a lack thereof (Idaho Code §67-5908(c)). Secondary sources were uninformative as to if this meant that actual damages were uncapped (DRI, 2011, p. 105; Green 1992; Buckley and Green 1997, 2002, 2006, 2008, 2009, and 2011). However, punitive damages are capped at $1,000 per willful violation (Idaho Code §67-5908(e)).

Kansas

The Kansas Act Against Discrimination (K.S.A. §44-1001, et seq.) caps damages at $2,000. DRI (2011, p. 139), citing Labra v. Mid-Plains Constr., Inc., 32 Kan. App. 2d 821, 823, 90 P.3d 954 (2004), notes that it is unclear if this cap applies only to administrative proceedings or if it also applies to private actions.

Minnesota

The Minnesota Human Rights Act (Minn. Stat. §363A) allows for compensatory damages capped at three times actual damages and punitive damages capped at $25,000 (Minn. Stat. §363A.29 Subd.4(a)).

States that Do Not Allow Punitive Damages

Arizona

Arizona's employment nondiscrimination law does not mention compensatory or punitive damages, only mentioning nonmonetary remedies, back pay, and that there is available "… any other equitable relief as the court deems appropriate" (A.R.S. §41-1481(G)). The history preamble to H.B. 2319 (Ariz. 45th legislature, 2001), an unpassed bill that attempted to amend this law, states that "Under Arizona law, the Attorney General's Civil Rights Division may only seek relief on behalf of a victim of discrimination in the name of the aggrieved party. Compensatory and punitive damages are not currently available to an aggrieved party under Arizona employment law, although under Arizona's housing law an aggrieved party may be awarded compensatory and punitive damages, and under the Arizonans with Disabilities Act, compensatory damages."

Connecticut

Punitive damages are capped as the amount equal to reasonable attorney's fees and costs (DRI, 2011, p. 49) as in Ford v. Blue Cross & Blue Shield of Conn., Inc., 216 Conn. 40 (1990).

Georgia

O.C.G.A. §45-19-38(d) states that "Any monetary award ordered pursuant to this article shall be for actual damages only." This rules out punitive damages (DRI, 2011, p. 88).

Iowa

Case law indicates that punitive damages are not allowed under Iowa's employment nondiscrimination law, but compensatory damages are allowed an uncapped. Case law notes via WestLaw (2013a, p. 156) for IA ST § 216.6 states: "Whereas Title VII places cap on compensatory and punitive damages recoverable by plaintiff who prevails on sex discrimination claims, the Iowa Civil Rights Act (ICRA) allows no punitive damages, but does not place cap on amount of compensatory damages. Baker v. John Morrell & Co., N.D.Iowa2003, 266 F.Supp.2d 909, affirmed 382 F.3d 816, rehearing and rehearing en banc denied." Other case law supports a lack of punitive damages: City of Hampton v Iowa Civil Rights Comm'n, 554 N.W.2d (referenced by DRI, 2011, p. 131), Ewing v. Federal Home Loan Bank of Des Moines, S.D.Iowa2009, 645 F.Supp.2d 707, Pospisil v. O'Reilly Automotive, Inc., N.D.Iowa2007, 619 F.Supp.2d 614, and Faust v. Command Center, Inc., S.D.Iowa2007, 484 F.Supp.2d 953, 100 Fair Empl.Prac.Cas. (BNA) 1238. Civil Rights (all three also mentioned in Westlaw, 2013a).

Illinois

Both Geslewitz (2007) and Smith, O'Callaghan, and White (2007) state that in the Illinois Human Rights Act (775 ILCS 5/1-101 et seq.), punitive damages are not allowed but uncapped compensatory damages are available. Although this law was amended in 2007 to allow a private right of action, this did not change the available remedies.

Indiana

The Indiana Civil Rights Law does not mention compensatory or punitive damages. Case law clarified that the Indiana Civil Rights Commission (ICRC) is authorized to award damages to compensate for both economic and emotional distress losses but is not authorized to award punitive damages. See Indiana Civil Rights Com'n v. Alder, 1999, 714 N.E.2d 632 (referenced by Westlaw, 2013b, p. 39 and p. 67).

Kentucky

Kentucky allows for compensatory damages (K.R.S. §344.230 (3); K.R.S. §344.450). No caps are mentioned in statute and other sources do not mention caps except to confirm that caps are not codified in statute (DRI 2011, p. 153; Buckley and Green 1997, 2002, 2006, 2008, 2009, and 2011; Green 1992). The availability of punitive damages was unclear until the Kentucky Supreme Court investigated this in 2003 and 2004. DRI (2011, p. 154) notes that: "The Kentucky Supreme Court recently clarified, in contrast to earlier decisions, that punitive damages are not available under the KCRA statutes. Kentucky Dep't of Corrs. v. McCullough, 123 S.W.3d 130, 138–39 (Ky. 2003); Brooks v. Lexington-Fayette Urban County Hous. Auth., 132 S.W.3d 790 (Ky. 2004)."

Louisiana

Louisiana allows compensatory damages, and the statute mentions no caps (La. R.S. §23:303(A)). DRI (2011, p. 160) states that there are no caps. Punitive damages are not available, as DRI (2011, p. 160) notes that "… punitive damages are not available under Louisiana law unless expressly authorized by statute. See, e.g., Ross v. Conoco, Inc., 2002-0299 (La. 10/15/02); 828 So. 2d 546, 555."

Michigan

The Michigan's Persons with Disabilities Civil Rights Act (M.CL. §§37.1101 et seq.) is not explicit about compensatory and punitive damages, stating that: "… "damages" means damages for injury or loss caused by each violation of this act, including reasonable attorneys' fees." (M.CL. §§37.1606(3)) DRI (2011, p. 201) states that while compensatory damages are allowed and uncapped, punitive damages (exemplary damages) are not allowed.

Montana

The Montana Human Rights Act does not explicitly mention compensatory damages. DRI (2011, p. 229) and Perry (2011) both state that compensatory damages are allowed and uncapped. However, punitive damages are not allowed for employment discrimination and this is noted explicitly in statute (Mont. Code Ann. §§49-2-506(2)).

Nebraska

The Nebraska Fair Employment Practice Act (Neb. Rev. Stat. §§48-1101 et seq.) does not explicitly indicate if compensatory or punitive damages are available. Gradwohl (1995) and DRI (2011, p. 235) state that punitive damages are generally unavailable in Nebraska. Buckley and Green (2002, 2008) state that compensatory damages are available, but do not mention caps or a lack thereof.

New Hampshire

According to New Hampshire's employment nondiscrimination law, compensatory damages are available (N.H. R.S.A. 354A-21(d)). Punitive damages are not mentioned, but DRI (2011, p. 247) states that New Hampshire law does not allow them.

New Mexico

The New Mexico Human Rights Act provides for "actual damages" with no caps mentioned (NMSA §§28-1-11-E). DRI (2011, p. 265) indicates that this meanS that there are uncapped compensatory damages.[4] Punitive damages, however, are not available: "The NMHRA provides that an employee may recover actual damages and reasonable attorneys' fees." NMSA 1978, §§28-1-11(E), 28-1-13(D). This has been interpreted to be confined to compensatory damages. See Trujillo, 2001-NMSC-004, ¶30 ("[T]he Human Rights Act does not permit the award of punitive damages."); Gandy v. Wal-Mart Stores, Inc., 117 N.M. 441, 443, 872 P.2d 859, 861 (1994) ("Punitive damages… are not recoverable under the Human Rights Act.")" (DRI, 2011, p. 266).

New York

According to the New York law (N.Y. Executive Law §297(4)(c)) "(iii) awarding of compensatory damages to the person aggrieved by such practice; (iv) awarding of punitive damages, in cases of housing discrimination only…" However, according to DRI (2011, p. 274), the compensatory damages that are available are uncapped, and there are civil fines available that mirror capped punitive damages: "As of July 6, 2009, the HRL was amended to provide for the assessment of civil fines and penalties against any employer found to have engaged in an unlawful discriminatory practice. The fines may be imposed in an amount up to $50,000, or up to $100,000 where the conduct is found to be willful, wanton or malicious" (DRI, 2011, p. 274).

North Dakota

"Neither the department nor an administrative hearing officer may order compensatory or punitive damages under this chapter" (N.D. Cent. Code §14-02.4-20).

Oklahoma

Unlike for other protected classes in Oklahoma, aggrieved employees with claims of disability discrimination were previously able to pursue a private action and receive compensatory damages (DRI, 2011, p. 317). However, this was removed effective November 1, 2011, when an amendment (Laws

[4] Also see http://www.lawatbdb.com/employee-rights/file_NM?agree=yes (viewed February 2, 2015).

2011, c. 270, § 21) repealed Okla. Stat. tit. 25, §§1901. It appears that punitive damages were never available, as neither statute nor DRI (2011, p. 317) mention them as having been available.

Pennsylvania

According to the Pennsylvania Human Relations Act (43 P.S. §§ 951–63), compensatory damages are available but there is no mention of punitive damages. DRI (2011, p. 340) argues that they are not available, citing Hoy v. Angelone, 554, Pa. 134, 720 A.2d 745 (1998), which stated: "[i]n sum, we are of the view that the Legislature's silence on the issue of punitive damages, together with the statutory language, interpreted consistent with the laws of statutory construction and in the context of the nature and purpose of the Act, requires the conclusion that the Legislature did not intend to permit the award of exemplary damages."

South Dakota

According to South Dakota's discrimination law, compensatory damages are available, but punitive damages are not available. More specifically, the statute states that "…In a civil action, if the court or jury finds that an unfair or discriminatory practice has occurred, it may award the charging party compensatory damages. The court may grant as relief any injunctive order, including affirmative action, to effectuate the purpose of this chapter. Punitive damages may be awarded under § 21-3-2 for a violation of §§ 20-13-20 to 20-13-21.2, inclusive, 20-13-23.4, or 20-13-23.7" (SDCL §20-13-35.1). However, the listed sections where punitive damages are allowed do not apply to employment discrimination based on disability.

Tennessee

According to case law notes from Westlaw (2013c, p. 18), under both the Tennessee Human Rights Act (THRA) and Tennessee Handicap Act (THA), compensatory damages are allowed. DRI (2011, p. 379) argues that punitive damages are not available, citing Carver v. Citizen Utils. Co., 954 S.W.2d 34 (Tenn. 1997). See also Forbes v. Wilson County Emergency Dist. 911 Bd., 1998, 966 S.W.2d 417, as cited by Westlaw (2013c, p. 18).

Utah

The Utah Anti-Discrimination Act states that the following relief is available for those successful in an employment discrimination claim:

"(b) provide relief to the complaining party, including:

(i) reinstatement;
(ii) back pay and benefits;
(iii) attorneys' fees; and
(iv) costs" (U.C.A. §34A-5-107(9)(b)).

Neither compensatory or punitive damages are mentioned. According to DRI (2011, p. 391), Utah does not allow compensatory or punitive damages.

Virginia

According to Virginians with Disabilities Act: "Any circuit court having jurisdiction and venue pursuant to Title 8.01, on the petition of any person with a disability, shall have the right to enjoin the abridgement of rights set forth in this chapter and to order such affirmative equitable relief as is appropriate and to award compensatory damages and to award to a prevailing party reasonable attorneys' fees, except that a defendant shall not be entitled to an award of attorneys' fees unless the court finds that the claim was frivolous, unreasonable or groundless, or brought in bad faith. Compensatory damages shall not include

damages for pain and suffering. Punitive or exemplary damages shall not be awarded" (Va. Code §51.5-46(A).).

Washington

Washington's employment nondiscrimination law (R.C.W. §49.60.030) states that "actual damages" are available, which has been interpreted to be uncapped compensatory damages (DRI, 2011, p. 491; online source). DRI (2011, p. 491) states that punitive damages are not allowed.[5]

Wisconsin

For most of its history, the Wisconsin Fair Employment Act allowed neither compensatory nor punitive damages. For a brief period between the passage of 2009 Act 20 (effective June 8, 2009) and the passage of 2011 Act 219 (effective April 20, 2012), the Wisconsin Fair Employment Act allowed the same damages as the ADA.

Wyoming

The Wyoming Fair Employment Practices Act (Wyo. Stat. 27-9-101 et seq.) does not mention compensatory or punitive damages, or a lack thereof. DRI (2011, p. 449) seems to suggest that these damages are not available.

States with No Law

Alabama

Alabama only has an employment nondiscrimination law that protects older workers, but not any other groups.

Mississippi

Mississippi does not have an employment nondiscrimination law.

[5] See also http://www.workplacefairness.org/file_WA (viewed February 3, 2014).