Online Appendix OA: Additional Discussion and Results

Estimating the Difference-in-Differences in a Probit Model

In a simple difference-in-differences model, with two states, the latent variable model corresponding to equation (2) in the main paper is

$$\text{(OA1)}\quad C_{is}^{*} = \alpha + \gamma S_{is} + S_{is}\cdot A_s\gamma' + A_s\gamma'' + X_{is}\delta + \varepsilon_{is},$$

where we have introduced a dummy for the state with a particular law, and X now does not include the state dummy variable. In this case, we compute the marginal effect of $S_{is}\cdot A_s$ by applying the Delta method to the expression

$$\text{(OA2)}\quad \Phi(\hat{\alpha} + \hat{\gamma} + \hat{\gamma}' + \hat{\gamma}'' + \overline{X}\hat{\delta}) - \Phi(\hat{\alpha} + \hat{\gamma}'' + \overline{X}\hat{\delta}) - \{\Phi(\hat{\alpha} + \hat{\gamma} + \overline{X}\hat{\delta}) - \Phi(\hat{\alpha} + \overline{X}\hat{\delta})\},$$

where $\Phi(\cdot)$ denotes the standard normal CDF, and $\overline{X}$ denotes sample means. The first difference is the difference in probabilities of callbacks between old applicants in the state with the law, and young applicants in the same state, and the second difference is between old and young applicants in the state without the law.

Another complication is that, when there are multiple states, the latent variable equation has a vector of state dummy variables, which absorb the main effect of A_s. Unlike in a linear model, where the state dummy variables difference out, we need to construct an average estimated intercept for the states with a law and the states without a law (paralleling the use of $\hat{\alpha} + \hat{\gamma}''$ for treated states and $\hat{\alpha}$ for control states in equation (OA2)). We do this by specifying the model to include dummy variables for every state, and no intercept, and construct the appropriate intercept for states with and without the policy as the sample-weighted averages of state dummy variable coefficients for the states with or without a law, including these averages in the corresponding first difference. Defining $P_{s,A=1}$ as the proportion of observations in state s, relative to all states with A = 1, and similarly for $P_{s,A=0}$, and defining $\hat{\theta}_s$ as the estimated coefficient of the dummy variable for state s, $\hat{\alpha} + \hat{\gamma}''$ in the first difference shown in equation (OA2) is replaced by

$$\text{(OA3)}\quad \sum_{s\in A=1}\{\hat{\theta}_s \cdot P_{s,A=1}\}$$

and $\hat{\alpha}$ in the second difference in equation (OA2) is replaced by

$$\text{(OA4)}\quad \sum_{s\in A=0}\{\hat{\theta}_s \cdot P_{s,A=0}\}.$$[1]

Heckman Critique

This section briefly explains the procedure to correct for the Heckman critique. As explained in Neumark (2012), allowing for different variances of the unobservables for young and old workers requires adding to some of the resumes characteristics that shift the callback probability, which in this study are skill measures described below, and estimating a heteroskedastic probit model. We first estimate a probit model with the controls and their interactions with "Old" included. We then test the overidentifying restriction for the controls, to see whether the data are consistent with the effects for young and old differing in a way that is driven only by the difference in variance of the unobservables

[1] Our comment in the main text about linear probability model estimates being very similar to the probit estimates applies equally well to the estimated interactions between the policy variables and the indicator for older applicants. Of course, with the linear probability model the estimation of interaction effects is much simpler.

(that is, the ratios of effects for young and old workers are equal).[2] It turns out that the overidentifying restriction using all of the controls is not rejected by the data, so we do not have to narrow down the set of variables used to identify the relative variance. We then estimate a heteroskedastic probit model that imposes equal coefficients of the controls in the latent variable model, with the variance of the residual differing between young and old workers. The estimates of this model are used to estimate marginal effects, and – as explained earlier – to decompose the marginal effects to isolate the effects of the variables on the level of the latent variable, which are the unbiased estimates of discrimination.

In this model, the age of applicants has two separate effects. The first effect is the usual discrimination channel we have in mind, exactly paralleling the effect of S in equation (1) of the main paper, which can be interpreted, perhaps most simply, as the effect of age on the employer's valuation of the worker's marginal product – just as in the Becker employer discrimination model. The second effect is via the variance of the unobservable, and as explained in Neumark (2012) this effect is an artifact of the details of the experimental design and is the source of the bias identified by the Heckman critique. Thus, adapting estimation of the effects of age, and its interactions with anti-discrimination laws, requires separating out these two effects and focusing on the first. Denoting by σ the ratio of the standard deviation of the unobservable for older applicants to the standard deviation for younger applicants, the difference-in-difference paralleling equation (OA2) becomes

$$\text{(OA5)}\quad \Phi\left(\frac{\hat{\alpha}+\hat{\gamma}+\hat{\gamma}'+\hat{\gamma}''+\overline{X}\hat{\delta}}{\sigma}\right)-\Phi(\hat{\alpha}+\hat{\gamma}''+\overline{X}\hat{\delta})-\left\{\Phi\left(\frac{\hat{\alpha}+\hat{\gamma}+\overline{X}\hat{\delta}}{\sigma}\right)-\Phi(\hat{\alpha}+\overline{X}\hat{\delta})\right\},$$

where σ appears in the first and third expressions because they apply to older applicants.

Equation (OA5) can be decomposed in two ways to isolate the effect of age through the level, each of which entails adding and subtracting terms that sum to zero. The first decomposition is

$$\begin{aligned}\text{(OA6)}\quad &\Phi\left(\frac{\hat{\alpha}+\hat{\gamma}+\hat{\gamma}'+\hat{\gamma}''+\overline{X}\hat{\delta}}{\sigma}\right)-\Phi\left(\frac{\hat{\alpha}+\hat{\gamma}''+\overline{X}\hat{\delta}}{\sigma}\right)-\left\{\Phi\left(\frac{\hat{\alpha}+\hat{\gamma}+\overline{X}\hat{\delta}}{\sigma}\right)-\Phi\left(\frac{\hat{\alpha}+\overline{X}\hat{\delta}}{\sigma}\right)\right\}+\\ &+\Phi\left(\frac{\hat{\alpha}+\hat{\gamma}''+\overline{X}\hat{\delta}}{\sigma}\right)-\Phi(\hat{\alpha}+\hat{\gamma}''+\overline{X}\hat{\delta})-\left\{\Phi\left(\frac{\hat{\alpha}+\overline{X}\hat{\delta}}{\sigma}\right)-\Phi(\hat{\alpha}+\overline{X}\hat{\delta})\right\}.\end{aligned}$$

The second decomposition is

$$\begin{aligned}\text{(OA6')}\quad &\Phi(\hat{\alpha}+\hat{\gamma}+\hat{\gamma}'+\hat{\gamma}''+\overline{X}\hat{\delta})-\Phi(\hat{\alpha}+\hat{\gamma}''+\overline{X}\hat{\delta})-\{\Phi(\hat{\alpha}+\hat{\gamma}+\overline{X}\hat{\delta})-\Phi(\hat{\alpha}+\overline{X}\hat{\delta})\}\\ &+\Phi\left(\frac{\hat{\alpha}+\hat{\gamma}+\hat{\gamma}'+\hat{\gamma}''+\overline{X}\hat{\delta}}{\sigma}\right)-\Phi(\hat{\alpha}+\hat{\gamma}+\hat{\gamma}'+\hat{\gamma}''+\overline{X}\hat{\delta})-\left\{\Phi\left(\frac{\hat{\alpha}+\hat{\gamma}+\overline{X}\hat{\delta}}{\sigma}\right)-\Phi(\hat{\alpha}+\hat{\gamma}+\overline{X}\hat{\delta})\right\}.\end{aligned}$$

In either equation (OA6) or (OA6'), the first difference-in-difference isolates the effects of age (corresponding to the parameter estimate $\hat{\gamma}$) and the age-by-law interaction ($\hat{\gamma}'$), and the second difference-in-difference isolates the effect of age via the variance of the unobservable. It is the first effect – the effect via the "level" – that provides unbiased estimates of the effects of age, and of age-by-law interactions, which we obtain by netting out the second effect. There are two alternative decompositions depending on whether we evaluate the first effect based on the variance of the unobservable for older applicants (equation (OA6)) or young applicants (equation (OA6')).[3]

The results are reported in Online Appendix Table OA1, using our preferred weighting from Table 5. Results are shown for women only because, for men, there was no evidence against the

[2] To identify the effect of the old-state law interactions, we have to assume equal coefficients for the state dummy variables, so this restriction is simply imposed. The overidentification test we use pertains to all of the other controls.

[3] This modifies the approach in Neumark (2012), where the marginal effect of group membership (there were no interactions with laws) was calculated treating the indicator of group membership as continuous rather than discrete, which has the advantage of providing a unique decomposition into the effect via the level and via the variance. However, for marginal effects involving interacted variables, this approach is not applicable.

homoskedastic model. For men, the old/young ratio of standard deviations of unobservables was 0.97 (p-value for test that ratio equals 1 = 0.89) for the first specification corresponding to Online Appendix Table OA1, and 0.90 (p-value = 0.56) for the second specification. In contrast, as the second panel of the table shows, the ratio of the standard deviation of the unobservable for old relative to young workers for women exceeds 1.2, and is significantly different from 1 at the 10-percent level, rejecting (at this significance level) the homoskedastic model – which implies that the Heckman critique applies.

The upper rows of the table report the marginal effects corrected for bias. The specifications are otherwise the same as those in Table 5, using all the laws simultaneously, and hence can be compared directly. The estimates in the first row indicate that the main effects of "Old," which measure age discrimination in the states where the federal laws bind, become larger by about 3 to 4 percentage points. Thus, for these states the evidence of age discrimination against women strengthens.

The remaining rows of the top panel report the unbiased estimates of the marginal effects of the estimated interactions between "Old" and the features of state anti-discrimination laws. As described in the main text, correcting for this bias, and using our preferred weighting (in Table 5), eliminates the evidence of positive effects of larger damages under age discrimination laws. However, we find statistically significant evidence of positive effects on the relative callback rate for older women of larger damages under disability discrimination laws, for the second specification that uses the more expansive definition of disability to define broader laws. There is also one estimate (in column (1)) suggesting that a broader definition of disability can reduce relative hiring of older workers, but this evidence is generally not statistically significant, nor was there support for this conclusion in the earlier tables.

.

Online Appendix Table OA1: Probit Estimates for Callbacks by Age, and Effects of State Age and Disability Anti-Discrimination Laws, Marginal Effects, with Correction for Bias from Different Variances of Unobservables for Young and Old Applicants, Women Only

	Specification 1		Specification 2	
	(1)	(2)	(3)	(4)
Decomposition	Eq. (8)	Eq. (8')	Eq. (8)	Eq. (8')
Callback estimates (heteroskedastic probit, marginal effect via level)				
Old (64-66)	-0.119*** (0.025)	-0.124*** (0.027)	-0.124*** (0.026)	-0.129*** (0.029)
Old (64-66) x Age and/or disability firm-size cutoff < 10	0.020 (0.020)	0.024 (0.024)	0.023 (0.021)	0.028 (0.025)
Old (64-66) x Age larger damages	0.001 (0.018)	0.003 (0.022)	0.003 (0.018)	0.006 (0.022)
Old (64-66) x Disability larger damages	0.016 (0.017)	0.019 (0.019)	0.027* (0.016)	0.031* (0.019)
Old (64-66) x Broader disability definition (medical only)	-0.037* (0.022)	-0.035 (0.024)		
Old (64-66) x Broader disability definition (medical or limits)			-0.031 (0.020)	-0.029 (0.022)
Overidentification test: ratios of coefficients on skills for old relative to young are equal (p-value, Wald test)	0.96		0.96	
Standard deviation of unobservables, old/young	1.21		1.22	
Test: equal variances of unobservables (p-value, Wald)	0.09		0.10	
Controls				
State, order, unemployed, skills	X	X	X	X
Callback rate for young (29-31)	23.08%		25.51%	
N	7,184		7,184	

Notes: For each city, the observations are weighted by the ratio of QWI Retail Employment, by sex, to the number of observations in the sample. The overidentification test is based on interactions of the skill variables, order of application, and unemployment, with the dummy variable for old. See notes to Tables 3 and 4. Results are shown for women only. For men, there was no evidence against the homoskedastic model. The old/young ratio of standard deviations of unobservables was 0.97 (p-value = 0.89) for specification 1, and 0.90 (p-value = 0.56) for specification 2.

Online Appendix OB: Legal Appendix

Coding of State 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 (e.g., a fair employment act, a separate disability discrimination act). 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.[1] 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 sources matched, we were confident that the information was correct. In cases of what should be unambiguous information – in particular the minimum firm size for laws to apply – 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 (since the statutes did not mention damages) 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.

As noted in the main text, there are three major ways in which state disability discrimination laws can be stronger than the federal ADA. Here we provide some general discussion of these differences, and then we provide state-specific details.

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. The ADA provides three routes for an individual to be considered disabled:

"The term "disability" means, with respect to an individual-

[1] 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).

(A) a physical or mental impairment that substantially limits one or more major life activities of such individual;

(B) a record of such an impairment; or

(C) being regarded as having such an impairment" (42 U.S. Code §12102 (1)).

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[2]. 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).[3]

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. 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 two dichotomous variables called "broader disability definition." The first is a dummy variable for states with the medical definition of disability ("broader disability definition (medical only)"), and the second is a dummy variable that also captures states with the "limits" (CA) definition, or the "materially limits" (MN) definition ("broader disability definition (medical or limits)").

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, MD, SC, and TX). 12 states allow larger potential damages, either through higher caps (AK and ME) or, more commonly, through allowing compensatory damages and uncapped punitive damages (CA, HI, MA, MO, NJ, OH, OR, RI, VT, and WV). We create a dichotomous variable called "larger damages," which equals one for the 12 states where potential damages exceed those under the ADA, and zero otherwise. Three states (FL, ID, and 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 26 states with no punitive damages. We do not include these states in the larger damages category because compensatory damages require

[2] For example, Burgdorf (1997, p. 536-538) cites numerous cases stemming from numerous cases stemming from Forrisi v. Bowen, 794 F.2d 931, 934 (4th Cir. 1986), which interpreted the ADA to only cover the "truly disabled" and not those with more minor impairments.

[3] These decisions were reversed by the ADA Amendments Act (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.

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.[4,5]

The coding of the state age and disability discrimination laws is summarized in Table 2 in the main text. Online Appendix Table OB1 lists the year of adoption of these laws.

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's disability discrimination law is discussed in further detail by Button (2018), but we provide a summary here. 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. 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."

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

[4] 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 11 states that have a different minimum (AL, AR, GA, IL, IN, KY, LA, NE, OR, SD, and VA). Regarding 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, non-punitive 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.

[5] In principle one might classify states with combinations of the three dimensions of laws tabulated in Table 2 as having the strongest laws. However, this would provide virtually no difference in variation, and hence almost no additional variation. As Table 2 shows, the set of states with the broader definition is quite small, and only one state (New Jersey) overlaps this dimension of state laws with larger damages. Similarly, for the overlap between broader definition and smaller firm size, no states differ. And finally, if we look at the overlap between larger damages and smaller firm size, only one state with larger damages leaves its firm size cutoff at 10 or greater (West Virginia); the independent variation in firm size cutoffs comes from the states that do not have larger damages.

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 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.[6] 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 12 states as having damages that exceed those provided by the ADA. Of these 12 larger damages states, two states (AK and ME) have caps on either compensatory or on punitive damages, but these caps exceed those of the ADA caps on the sum of compensatory and punitive damages. The remaining ten states (CA, HI, MA, MO, NJ, OH, OR, RI, VT, and WV) allow compensatory damages and allow punitive damages that are uncapped. Of the 38 states that we classify as not having damages that exceed the ADA, six states (AR, CO, DE, MD, SC, and TX) have the exact same damage caps as the ADA, three (FL, ID, MN) have lower damage caps, 26 do not allow punitive damages (AZ, GA, IA, IL, IN, KS, KY, LA, MI, MT, NC, ND, NE, NH, NM, NV, NY, OK, PA, SD, TN, UT, VA, WA, WI, and WY), two (AL, MS) do not have an employment non-discrimination law for disability, and CT had an ambiguous law at the time of data collection, such that we code it is not having larger damages since this category is a much better fit.

States with Compensatory Damages and Uncapped Punitive Damages

Ten states (CA, HI, MA, MO, NJ, OH, OR, RI, VT, and WV) offer both compensatory damages and uncapped punitive damages. 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 non-discrimination law is vague as to what damages are available, and this had to be clarified in case law. The Fair Employment and Housing Act (Cal. Govt. Code §§12900–12996) provides no mention of 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.[7] The National Conference of State Legislatures (2015) (henceforth NCSL) also indicates that punitive damages are available.

Hawaii

Hawaii's employment non-discrimination 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) and NCSL (2015) confirm that there are in fact no caps. Jury instructions mention punitive

[6] See Pulcino v. Fed. Express Corp., 9 P.3d 787, 794 (Wash. 2000) as discussed by Long (2004).
[7] See http://scocal.stanford.edu/opinion/commodore-home-systems-inc-v-superior-court-28300 (viewed February 2,015).

damages but do not mention caps.[8] Punitive damages are discussed in-depth by Antolini (2004) who notes that punitive damages are not capped (p. 159).

Massachusetts

Massachusetts' employment non-discrimination 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 (DRI, 2011, p. 191; Sperino, 2010). NCSL (2015) and Guide to Employment Law & Regulation (2016) (henceforth GELR) also indicates that punitive damages are available.

Missouri

Missouri's employment non-discrimination 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, p. 709), NCSL (2015), and GELR (2016) also indicate that punitive damages are uncapped.

New Jersey

New Jersey's employment non-discrimination 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). NCSL (2015) and GELR (2016) also indicate that punitive damages are available.

Ohio

Ohio law allows for "…damages, injunctive relief, or any other appropriate relief." (OH ST. § 4112.99). According to DRI (2011, p. 311), this includes uncapped compensatory and punitive damages for civil actions, but these damages are capped if the case is handled by the Ohio Civil Rights Commission. NCSL (2015) also indicates that punitive damages are available.

Oregon

Oregon's employment non-discrimination 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. NCSL (2015) and GELR (2016) also indicate that punitive damages are available.

Rhode Island

Rhode Island's employment non-discrimination law states that: "Any person with a disability

[8] See http://www.courts.state.hi.us/docs/legal_references/jury_instructions_civil.pdf (viewed February 5, 2017).

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). NCSL (2015) and GELR (2016) confirm that punitive damages are available for a private action. 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 non-discrimination 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. NCSL (2015) similarly confirms that punitive damages are available. 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 as to if punitive damages were covered. This ambiguity prior to the 1999 amendment 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.

West Virginia

West Virginia's employment non-discrimination 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. NCSL (2015) lists both compensatory and punitive damages.

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."

These caps are just caps on punitive damages, and these caps are even above the ADA caps which are caps on the sum of compensatory and punitive damages. NCSL (2015) lists that compensatory and punitive damages are available.

Maine

Maine's compensatory damages, as described in 5 M.R.S.A. §4613(2)(B)(8)(e), exceed those of the combined damages allowed under the ADA for firms with 201 or more employees, and are equal for all other firm sizes.

> "(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."

The statute also allows for punitive damages "A complaining party may recover punitive damages under this subparagraph against a respondent if the complaining party demonstrates that the respondent engaged in a discriminatory practice or discriminatory practices with malice or with reckless indifference to the rights of an aggrieved individual protected by this Act." (5 M.R.S.A. §4613(2)(B)(8)(c)) This is confirmed both by DRI (2011, p. 170) and NCSL (2015).

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. The statute allows for a minimum employer size of one for the law to apply in Baltimore County, but punitive damages are not allowed in Baltimore County in cases with employers of size one to 14 employees.

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)).

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 non-discrimination law does not mention compensatory or punitive damages, only mentioning non-monetary 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." This suggests that compensatory and punitive damages are in fact not available. DRI (2011) and GERL (2015) do not mention punitive damages, with DRI (2011) mentioning that "A successful plaintiff under the ACRA may recover damages similar to those available under Title VII prior to it being amended by the 1991 Civil Rights Act." (p. 13) Before the 1991 Civil

Rights Act, punitive damages were not available.

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, which is echoed by DRI (2011, p. 88) and NCSL (2015). GELR (2016) also does not mention punitive damages.

Illinois

The statute allows for "actual damages, as reasonably determined by the Commission, for injury or loss suffered by the complainant" (775 ILCS 5/8A-104). No punitive damages are mentioned. Smith, O'Callaghan, and White[9] and DRI (2011, p. 111) state that in the Illinois Human Rights Act (775 ILCS 5/1-101 et seq.), punitive damages are not allowed but the actual damages allowed are uncapped. Sezer and Epting (2012) also state that punitive damages are not allowed. GELR (2016) also does not list punitive damages. Although this law was amended in 2007 to allow a private right of action, this did not change the available remedies. However, NCSL (2015) lists punitive damages as being available, so there is some contradiction in the secondary sources. Given this, case law could help resolve this uncertainty. Case law confirms the lack of punitive damages, with the Illinois Supreme Court striking a punitive damages award in *Crittenden v. Cook County Commission on Human Rights*, 2013 IL 114876 on June 20, 2013. While punitive damages may have been unclear before this case, it is clear since then that they are not allowed.

Indiana

The Indiana Civil Rights Law (Ind. Code §22-9-1-1, et seq.) 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). NCSL (2015) also indicates that punitive damages are not available, DRI (2011, p. 121) does not mention punitive damages, and GELR (2016) does not mention damages as being available.

Iowa

Case law indicates that punitive damages are not allowed under Iowa's employment non-discrimination law, but compensatory damages are allowed and are 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). NCSL (2015) and GELR (2016) also do not list punitive damages.

Kansas

[9] See http://www.socw.com/pdfs/Summary_of_new_IHRA.pdf (accessed January 9, 2017).

The Kansas Act Against Discrimination (K.S.A. §44-1001, et seq.) caps damages at $2,000 and does not list punitive damages. 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. Neither DRI (2011) not GELR (2016) nor NCSL (2015) indicate that punitive damages are available.

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)." Neither NCSL (2015) nor GELR (2016) list punitive damages.

Louisiana

Louisiana allows compensatory damages, and the statute mentions no caps (La. R.S. §23:303(A)). DRI (2011, p. 160) also 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." (This case also cites Richard v. State, 390 So. 2d 882 (La. 1980); Killebrew v. Abbott Labs., 359 So. 2d 1275 (La. 1978) on this point). NCSL (2015) and GELR (2016) also do not mention that punitive damages are available.

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. The lack of punitive damages is confirmed in Dorsey v City of Detroit, 157 F Supp 2d 729 (ED Mich 2001). NCSL (2015) and GELR (2016) also list punitive damages.

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)). The lack of punitive damages is also noted by NCSL (2015) and GELR (2016) does not list punitive damages.

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) provides an in-depth discussion of punitive damages in Nebraska and both Gradwohl (1995) and DRI (2011, p. 235) state that punitive damages are generally unavailable in Nebraska. Other secondary sources suggest the

lack of punitive damages in Nebraska for employment discrimination (NCSL, 2015; GELR, 2016)[10].

Nevada

The section of the statute detailing employment non-discrimination law does not discuss damages (Nev. Rev. Stat. §613.330 et seq.) Nev. Rev. Stat. §233.170 which lists the powers of the Nevada Equal Rights Commission only mentions "actual damages for any economic loss and no more." No secondary sources suggest that punitive damages are available (Green 1992; Buckley and Green 1997, 2002, 2006, 2008, 2009, and 2011; NCSL, 2015; GELR, 2016).

New Hampshire

According to New Hampshire's employment non-discrimination law, compensatory damages are available (N.H. R.S.A. 354A-21(d)). Punitive damages are not mentioned in this statute, but a more general statute on punitive damages states: "No punitive damages shall be awarded in any action, unless otherwise provided by statute." (N.H. R.S.A. 507:16) DRI (2011, p. 247) and NCSL (2015) also state that New Hampshire law does not allow punitive damages, and GELR (2016) lists compensatory damages only. Case law appears to indicate that punitive damages are not available[11].

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 mean that there are uncapped compensatory damages.[12] 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). See also Behrmann v. Phototron Corp. 795 P.2d 1015 (1990) ("The treatises affirm that the phrase actual damages is synonymous with compensatory damages and that compensatory damages are exclusive of punitive damages.") Neither NCSL (2015) nor GELR (2016) mention punitive damages.

New York

According to New York Executive Law §297(4)(c), punitive damages are not allowed: "(iii) awarding of compensatory damages to the person aggrieved by such practice; (iv) awarding of punitive damages, in cases of housing discrimination only…" DRI (2011, p. 274), GELR (2016), and NCSL (2015) also indicate that punitive damages are not available.

North Carolina

Neither compensatory nor punitive damages are mentioned in the "Persons with Disabilities Protection Act" (N.C.G.S.A. §168A-11). Rather this statute states "(b) Any relief granted by the court shall be limited to declaratory and injunctive relief, including orders to hire or reinstate an aggrieved person or admit such person to a labor organization. In a civil action brought to enforce provisions of this Chapter relating to employment, the court may award back pay." and reasonable attorney's fees are also

[10] See also, e.g., http://www.workplacefairness.org/file_NE (accessed January 11, 2017).
[11] See Evans v. Work Opportunities Unlimited, Inc., 927 F. Supp. 554 (D.N.H. 1996) and The State of New Hampshire v. Daniel P. Hynes.
[12] Also see http://www.lawatbdb.com/employee-rights/file_NM?agree=yes (viewed February 2, 2015).

available under part (d). NCSL (2015), GELR (2016), and DRI (2011, p. 289) also do not indicate that punitive damages are available.

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). Neither NCSL (2015) nor DRI (2011, p. 305) nor GELR (2016) indicate that these damages are available.

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 2011, c. 270, § 21) repealed Okla. Stat. tit. 25, §§1901. NCSL (2015) does not mention punitive damages as being available after this legal change. It appears that punitive damages were never available before this change, as neither the statute nor DRI (2011, p. 317) mention them as having been available. GELR (2016) and NCSL (2015) also do not list punitive damages.

Pennsylvania

There is no mention of punitive damages in the Pennsylvania Human Relations Act (43 P.S. §§ 951 et seq.). 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." NCSL (2015) and GELR (2016) also do not indicate that punitive damages are available.

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, these listed sections where punitive damages are allowed do not apply to employment discrimination based on disability. NCSL (2015) also does not indicate that punitive damages are available.

Tennessee

Neither the Tennessee Human Rights Act (THRA, T.C.A. §§4-21-401 *et seq.*) nor the Tennessee Handicap Act (THA, T.C.A. §§4-21-401 *et seq.*) mention punitive damages (the later refers to the former for the damages 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). NCSL (2015) also indicates that punitive damages are not allowed and GELR (2016) does not list punitive damages.

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)).

Punitive damages are not mentioned. According to DRI (2011, p. 391), NCSL (2015), and the Labor Commission of the State of Utah[13], they are not allowed. GELR (2016) also does not list 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).). DRI (2011, p. 407), GELR (2016), and NCSL (2015) also confirm that punitive damages are not available.

Washington

Washington's employment non-discrimination 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). DRI (2011, p. 491), NCSL (2015), and other sources[14] state that punitive damages are not allowed, and GELR (2016) does not list punitive damages. The lack of punitive damages is confirmed explicitly, with case law citations, in the Washington Civil Jury Instructions[15]:

> "Exemplary or punitive damages are generally not recoverable under Washington law unless expressly authorized by statute. Grays Harbor County v. Bay City Lumber Co., 47 Wn.2d 879, 289 P.2d 975 (1955); Anderson v. Dalton, 40 Wn.2d 894, 246 P.2d 853, 35 A.L.R.2d 302 (1952).

Punitive damages are contrary to Washington's public policy. E.g., Dailey v. North Coast Life Ins. Co., 129 Wn.2d 572, 574, 919 P.2d 589 (1996). The Supreme Court held that the Legislature, in enacting the state Law Against Discrimination (RCW Chapter 49.60), which allows for "any other remedy authorized by … the United States Civil Rights Act of 1964 as amended," had not unambiguously manifested an intention to make punitive damages available. Dailey v. North Coast Life Ins. Co, 129 Wn.2d at 575–77."

---

[13] See https://laborcommission.utah.gov/divisions/Adjudication/EmploymentDiscrimationDetermination.html (accessed January 12, 2017).

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

[15] See https://govt.westlaw.com/wciji/Document/I2c8b44cce10d11dab058a118868d70a9?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default) (accessed January 13, 2017).

Wisconsin

For most of its history, the Wisconsin Fair Employment Act (Wis. Stats. §§111.31–111.397) did not mention 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, which could be recovered in circuit court after the completion of administrative proceedings. But punitive damages were removed by 2011 Act 219. Wisconsin's Department of Workforce Development also notes that punitive damages are not currently available under state law[16] and GELR (2016) does not mention punitive damages.

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. NCSL (2015) and Hickox (1996) also notes that punitive damages are not available, and GELR (2016) does not mention punitive damages.

States with No Law

Alabama

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

Mississippi

Mississippi does not have an employment non-discrimination law.

Unclear Cases

Connecticut

The statute does not mention compensatory or punitive damages: "The court may grant a complainant in an action brought in accordance with section 46a-100 such legal and equitable relief which it deems appropriate including, but not limited to, temporary or permanent injunctive relief, attorney's fees and court costs. The amount of attorney's fees allowed shall not be contingent upon the amount of damages requested by or awarded to the complainant." (Conn. Gen. Stat §46a-104)

The failure to mention compensatory and punitive damages made it unclear if these damages really were not allowed. The case Michael Tomick v. United Parcel Service, Inc. clarified if punitive damages were available under this statute. The court originally authorized punitive damages for disability discrimination in this case, but the defendant's motion to set aside the award of punitive damages was granted on October 28, 2010. The Supreme Court of Connecticut then ruled on December 30, 2016 that punitive damages were not available under Conn. Gen. Stat §46a-104 (Tomick *v.* United Parcel Service, Inc., SC19505 (Conn. 2017)). NCSL (2015) indicates that punitive damages are available ("litigated in court") but this is rather vague, providing little information. The confusion on punitive damages up until the final Tomick case at the end of 2016 is discussed thoroughly by Michael D. Colonese and Cassie N.

[16] See https://dwd.wisconsin.gov/er/discrimination_civil_rights/publication_erd_6160_p.htm (accessed January 13, 2017).

Jameson in an article in the Connecticut Law Tribune[17]. This ambiguity in case law was also mentioned by the Williams Institute, who referenced difference cases.[18]

As for compensatory damages, there were not allowed in employment cases since a 1995 Supreme Court of Connecticut ruling that the Connecticut Commission on Human Rights and Opportunities does not have the statutory authority to provide for these damages (Bridgeport Hospital v. Commission on Human Rights and Opportunities 232 Conn. 91). See also C*ommission on Human Rights & Opportunities v. Truelove & Maclean, Inc.*,238 Conn. 337, 350, 680 A.2d 1261 (1996). NCSL (2015) indicates that neither compensatory or punitive damages are expressly provided for in the statute and further notes that the Connecticut Supreme Court did not provide for compensatory damages in 1995 (referencing the above case).

In this case, we code Connecticut as not having larger damages than the federal ADA on the grounds that compensatory damages are not available, and it was not sufficiently likely that punitive damages were either, especially after the reversal of the punitive damages in the Tomick case in 2010.

A Brief Note on Age Discrimination Laws

As Table 1 in the paper shows, firm-size minimums are similar for disability and age discrimination laws, but there are 12 states that have a different minimum (AL, AR, DE, GA, KY, IL, IN, LA, NE, OR, SD, VA). Regarding 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, non-punitive 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. For more details see Neumark and Song (2013).

[17] See http://ppg.brownjacobson.com/wp-content/uploads/2014/12/punitive-damages-claimed.pdf (accessed January 9, 2017).
[18] See https://williamsinstitute.law.ucla.edu/wp-content/uploads/15_ENDAvStateLaws2.pdf (accessed January 11, 2017).

Online Appendix OB References

Antolini, Denise E. 2004. "Punitive Damages in Rhetoric and Reality: An Integrated Empirical Analysis of Punitive Damages Judgements in Hawaii, 1985-2001." *Journal of Law & Politics*, Vol. 20, pp. 143-341.

Beegle, Kathleen, and Wendy A. Stock. 2003. "The Labor Market Effects of Disability Discrimination Laws." *Journal of Human Resources*, Vol. 38, pp. 806-59.

Buckley, John, and Ronald Green. 2011. State by State Guide to Human Resources Law. Aspen Publishers: New York.

Buckley, John, and Ronald Green. 2009. State by State Guide to Human Resources Law. Aspen Publishers: New York

Buckley, John, and Ronald Green. 2008. State by State Guide to Human Resources Law. Aspen Publishers: New York.

Buckley, John, and Ronald Green. 2006. State by State Guide to Human Resources Law. Aspen Publishers: New York.

Buckley, John, and Ronald Green. 2002. State by State Guide to Human Resources Law. Aspen Publishers: New York.

Buckley, John, and Ronald Green. 1997. State by State Guide to Human Resources Law. Aspen Publishers: New York.

Burgdorf, Robert L. 1997. "Substantially Limited: Protection from Disability Discrimination: The Special Treatment Model and Misconstruction of the Definition of Disability." *Villanova Law Review*, Vol. 42, pp. 409-586

Button, Patrick. 2018. "Expanding Disability Discrimination Protections for Individuals with Disabilities: Evidence from California." *Industrial and Labor Relations Review*, Vol. 71, pp. 365-93.

Colker, Ruth and Adam Milani. 2002. "The Post-Garrett World: Insufficient State Protection Against Disability Discrimination" *Alabama Law Review*, Vol. 53, pp. 1075-166.

DRI. 2011. *Employment and Labor Law State by State Compendium*. DRI: Chicago.

Gradwohl, John M. 1995. "Current Dimensions of the Federal Arbitration Act in Nebraska." *Nebraska Law Review*, Vol. 74, pp. 304-23.

Green, Ronald. 1992. State by State Guide to Human Resources Law. Panel Publishers.

Hickox, Stacy A. 1996. "Reduction of Punitive Damages for Employment Discrimination: Are Courts Ignoring our Juries?" *Mercer Law Review*, Vol. 54, pp. 1081-1132.

Long, Alex. 2004. "State Anti-Discrimination Law as a Model for Amending the Americans with Disabilities Act." *University of Pittsburgh Law Review*, Vol. 65, pp. 597-653.

Moberly, Michael D. 1994. "Reconsidering the Discriminatory Motive Requirement in ADEA Disparate Treatment Cases." *New Mexico Law Review*, Vol. 24, pp. 89-124.

Neumark, David, and Joanne Song. 2013. "Do Stronger Age Discrimination Laws Make Social Security Reforms More Effective?" *Journal of Public Economics*, Vol. 108, pp. 1-16.

Perry, John. 2011. Equal Employment of Persons with Disabilities. American Bar Association Publishing: Washington.

Sezer, Kent and Jacinta Epting. 2012. "Rights, Remedies, and Procedures Under Illinois Law" in Adrianne C. Mazura (Ed.) Employment Discrimination. Chicago: Illinois Institute for Continuing

Legal Education

Sperino, Sandra F. 2010. "The New Calculus of Punitive Damages for Employment Discrimination Cases." *Oklahoma Law Review*, Vol. 62, 701-734

Westlaw. 2013a. "IA ST § 216.6" Retrieved from Westlaw Campus on July 26, 2013.

Westlaw. 2013b. "IN ST 22-9-1-3" Retrieved from Westlaw Campus on July 26, 2013.

Westlaw. 2013c. "TN ST § 8-50-103" Retrieved from Westlaw Campus on July 31, 2013.

Online Appendix Table OB1: Years of Enactment of State Age and Disability Discrimination Laws

State	Year of adoption	
	Age discrimination law	Disability discrimination law
Alabama	1997	No law
Alaska	1960	1987
Arizona	1980	1985
Arkansas	No law	1987
California	1961	1973
Colorado	1986	1982
Connecticut	1959	1973
Delaware	1960	1988
Florida	1977	1974
Georgia	1971	1981
Hawaii	1963	1975
Idaho	1965	1988
Illinois	1967	1971
Indiana	1965	1975
Iowa	1972	1975
Kansas	1983	1974
Kentucky	1972	1976
Louisiana	1934	1980
Maine	1965	1975
Maryland	1968	1974
Massachusetts	1937	1978
Michigan	1965	1976
Minnesota	1977	1978
Mississippi	No law	No law
Missouri	1986	1986
Montana	1974	1986
Nebraska	1963	1973
Nevada	1973	1973
New Hampshire	1971	1977
New Jersey	1962	1972
New Mexico	1969	1974
New York	1958	1974
North Carolina	1977	1985
North Dakota	1965	1983
Ohio	1961	1976
Oklahoma	1985	1981
Oregon	1959	1973
Pennsylvania	1956	1978
Rhode Island	1956	1977
South Carolina	1979	1983
South Dakota	No law	1985
Tennessee	1980	1976
Texas	1983	1975
Utah	1975	1979
Vermont	1981	1978
Virginia	1987	1975
Washington	1961	1977
West Virginia	1971	1978
Wisconsin	1959	1976
Wyoming	1984	1985

Notes: Age discrimination laws come from Neumark and Stock (1999), cross-referenced with records used to compile law data for Neumark and Song (2013). Disability discrimination laws come from Beegle and Stock (2004).