

Online Appendix for:

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Online Appendix A: Additional Details on the Prudence Kay

Poppink Act

The Prudence Kay Poppink Act (PKP Act) led to five changes in disability discrimination law in California. The first four broaden who can be considered disabled under California law, while the last, discussed in the next section, seeks to expand reasonable accommodations by forcing employers to discuss reasonable accommodations more diligently with employees.

The first and arguably the most important of the changes in the PKP Act is that the PKP Act made it explicit that the statement in California's Fair Employment and Housing Act (FEHA) that an impairment need only "limit" a major life activity is weaker than the ADA's "substantially limits" requirement. Although FEHA always had a "limits" requirement written in law, even before the PKP Act, the FEHA's "limits" requirement was always interpreted consistently with the ADA's "substantially limits" requirement (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 PKP Act, when FEHA's "limits" was interpreted the same as the ADA's "substantially limits", but he would be considered disabled under FEHA after the PKP Act.

Second, the PKP Act rejected key decisions in the *Sutton* trilogy of U.S. Supreme Court cases²⁶ which restricted who was considered disabled under the ADA and in many states with state laws tied to ADA case law, such as California. These cases deemed individuals to be not disabled if mitigating measures, such as glasses, medication, or assistive devices, made the individual no longer "substantially limited" in a major life activity. The PKP Act, however, explicitly states that: " 'Limits' shall be determined without regard to mitigating measures, such as medications, assistive devices, prosthetics, or reasonable accommodations, unless the mitigating measure itself limits a major life activity." (Cal Gov Code §12926(l)(1)(B)(i)) This further expands who is considered disabled under California's FEHA relative to the ADA.

Third, the PKP Act also added "working" to the list of major life activities in a fashion that

²⁶*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)).

was broader than under the ADA. While “working” was considered as a major life activity under the ADA, and was interpreted as such by the courts²⁷, it was subject to the so-called “single job rule”. Under this rule, it is not enough for plaintiffs to argue that their impairment precludes them from a single job or narrow range of jobs, they must argue that it precludes them from a class of jobs or a broader range of jobs (Long, 2008)²⁸. Because this was a demanding standard, plaintiffs typically only argued that they were substantially limited in the major life activity of working if they could not establish that they were substantially limited in some other major life activity²⁹. When plaintiffs did resort to using “working”, they typically failed because they could only establish that their condition limited the major life activity of working only in their particular job³⁰. The PKP Act resolved this issue by adding to FEHA: “...Further, under the law of this state, ‘working’ is a major life activity, regardless of whether the actual or perceived working limitation implicates a particular employment or a class or broad range of employments.” (Cal Gov Code §12926.1(c)) Thus, the PKP Act’s addition of “working” as a major life activity made it easier for individuals to be deemed disabled.

Fourth, the PKP Act added to FEHA that: “Physical and mental disabilities include, but are not limited to, chronic or episodic conditions such as HIV/AIDS, hepatitis, epilepsy, seizure disorder, diabetes, clinical depression, bipolar disorder, multiple sclerosis, and heart disease.” (Cal Gov Code §12926.1(c)) These conditions were explicitly considered as disabilities after the PKP Act, regardless of if the “limits” requirement was met,³¹ but these conditions were not necessarily covered under the ADA or the FEHA before the PKP Act. Episodic conditions such as epilepsy, seizure disorder, episodic depression, bipolar disorder, and multiple sclerosis were not covered by

²⁷See, e.g., *Rodriguez v. Conagra Grocery Products Co.*, 436 F.3d 468 (5th Cir. 2006)

²⁸The individual must be “... significantly restricted in the ability to perform in a class of jobs or a broad range of jobs in a variety of classes as compared to the average person having comparable training, skills and abilities” (29 C.F.R. 1630.2(j)(3)(i))

²⁹The EEOC suggested this as was the proper course of action in 29 C.F.R. 1630, App. 1630.2(j) and courts generally followed this approach (see, e.g., *Pryor v. Trane Co.*, 138 F.3d 1024 (5th Cir. 1998)) (Taylor, 2009)

³⁰See e.g., *Sutton v. United Airlines* (119 S. Ct. 2139 (1999)); *Diffey v. Riverside County Sheriff’s Dept.*, 101 Cal. Rptr. 2d 353 (2000); *Toyota Mfg., Ky., inc. v. Williams* (00-1089) 534 U.S. 184 (2002) 224 F.3d 840, *Squibb v. Memorial Medical Center*, 497 F.3d 775(7th Cir. 2007); *Zwygart v. Board of Commissioners of Jefferson Co.*, 483 F.3d 1086 (10th Cir.2007); *Williams v. Philadelphia Housing Authority Police Dept.*, 380 F.3d 751 (3rd Cir. 2004)

³¹For example, *Maureen K. v. Tuschka* (2013, 2d Dist) 2013 Cal App states that the jury should never have been consulted as to if the plaintiff’s HIV positive status made her legally disabled, as she was disabled as a matter of law.

the ADA or the FEHA before the PKP Act, since these episodic conditions were deemed not to be disabilities by court decisions³². For the less episodic conditions that became covered after the PKP Act: HIV/AIDS, hepatitis, diabetes, depression, and heart disease, these were not explicitly covered under the ADA or the pre-PKP Act FEHA. They were covered if they met the usual requirement of their condition substantially limiting one or more major life activities, but this was often hard to establish.³³

Reasonable Accommodations under the PKP Act

The fifth change in the PKP Act made it a violation of FEHA: “For an employer or other entity covered by this part to fail to engage in a timely, good faith, interactive process with the employee or applicant to determine effective reasonable accommodations...” (Cal. Gov. Code §12940(n)). While the ADA also requires employers to interact in good faith with employees regarding reasonable accommodations, the requirement under FEHA after the PKP Act is different than the ADA. [Byron \(2012\)](#) states: “Under the FEHA, participation is mandatory. Under the ADA, the better practice is to engage in the interactive process because the employer bears the burden of persuasion as to whether participation should be excused by proving that no reasonable accommodation was available.³⁴” Thus, it is possible for an employee to win a claim against an employer for failing to engage in the interactive process to determine reasonable accommodations and at the same time that employee could lose their case that reasonable accommodation was not given³⁵. While the policies of which accommodations are reasonable under the ADA and

³²For bipolar disorder, see a discussion in [Long \(2008\)](#), who cites *Horwitz v. L & J.G. Stickley, Inc.*, 122 F. Supp. 2d 350 (N.D.N.Y. 2000). See *Menchaca v. Maricopa Cmty. Coll.*, 595 F. Supp. 2d 1063, 1077 (D. Ariz. 2009), which is discussed by [Harned and McBride \(2010\)](#), as an example of how episodic conditions were not covered under the ADA. See *Todd v. Academy Corp.* 57 F. Supp. 2d 448, 453 (S.D. Tex. 1999) as an example for epilepsy and see *Pimental v. Dartmouth-Hitchcock Clinic*, 236 F. Supp. 2d 177, 182-83 (D.N.H. 2002) as an example for conditions in remission.

³³For HIV, see a discussion in [Long \(2008\)](#), who cites *Blanks v. Sw. Bell Commc’ns, Inc.*, 310 F.3d 398 (5th Cir. 2002) (HIV). For heart disease, see *Wallace v. Mantych Metalworking*, 189 Ohio App.3d 25, 2010-Ohio-3765, which is discussed in <http://www.ohioemployerlawblog.com/2010/08/real-life-example-of-difference-between.html> (accessed March 1, 2015).

³⁴See *Dark v. Curry County* (9th Cir. 2006) 451 F.3d 1078, 1088 as cited by [Byron \(2012\)](#).

³⁵See *Wysinger v. Automobile Club of Southern California* (2007) 157 Cal.App.4th 413, 424-425, which is discussed in <http://www.mondaq.com/unitedstates/x/160950/Discrimination+Disability+Sexual+>

FEHA are the same, this requirement places additional pressure on employers to discuss reasonable accommodations with employees, perhaps making it more likely that accommodation agreements are made. However, [Hill, Maestas and Mullen \(2014\)](#) argue that employer incentives, such as the penalty imposed under the PKP Act, may not be particularly effective at increasing accommodation rates, as they find that accommodations are driven by employee personality characteristics and not employer characteristics.

As discussed above, there were four changes in the PKP Act that broadened coverage of FEHA. For each of the groups newly covered from these changes, the accommodation costs or requirements are likely smaller than they would be for those newly covered by the ADA or similar state laws with reasonable accommodation requirements (as in [Beegle and Stock 2003](#); and [Jolls and Prescott \(2004\)](#)). First, those with impairments that only “limit” but do not “substantially limit” a major life activity likely have lower accommodation costs than those who have impairments that “substantially limit” a major life activity. Second, for individuals with mitigating measures, where the mitigating measure leads to them being no longer be “substantially limited” in a major life activity, their mitigating measure leads them to have only a minor impairment, if any, so accommodations are likely to be less costly or not required, relative to those “substantially limited” as under the ADA. Third, individuals who become covered under the PKP Act because they can only claim a limitation to the major life activity of “working” have a job-specific impairment that does not substantially limit any other major life activities. So while this impairment is milder than one that would “substantially limit” a major life activity, accommodations are much more likely for this individual since the impairment is job-specific. In *Toyota Mfg., Ky., inc. v. Williams* (00-1089) 534 U.S. 184 (2002) 224 F.3d 840 the plaintiff’s was substantially limited in her ability to perform her job duties due to bilateral carpal tunnel syndrome and bilateral tendinitis. She requested accommodations that involved job restructuring, and these are likely the type of accommodations that would be required in this case, along with possibly assistive devices. It is difficult to say for this group if these accommodations would be more likely or most costly relative to those for

Harassment/Disability+Discrimination+And+The+Obligation+To+Provide+Reasonable+Accommodation+The+Interactive+Process (accessed March 8, 2015)

the “substantially limited” under the ADA. Fourth, for the group of impairments covered in the PKP Act regardless of the “limits” requirement (see above), these impairments likely don’t require significant accommodations.

Motivation for the Prudence Kay Poppink Act

The motivation behind the PKP Act was court rulings that diverged from what legislators saw as the intent of California’s FEHA. FEHA always had codified in law that the requirement to be considered disabled was that a condition only “limit” a major life activity, and not substantially limit one. However, courts interpreted FEHA the same as the ADA, thus making the standard in FEHA to be “substantially limits” (Long, 2004). This history of alleged misinterpretation is demonstrated in *Colmenares v. Braemer Country Club, Inc.*, 63 P.3d 220, 223 (Cal. 2003), where the plaintiff was deemed not disabled because his case preceded the PKP Act, when FEHA’s “limits” was interpreted consistent with the ADA’s “substantially limits”, but he would have been considered disabled after the PKP Act. So while the misinterpretation of “limits” to be “substantially limits” was always looming, the breaking point that prompted the PKP Act was likely the “Sutton Trilogy” of United States Supreme Court decisions³⁶. The “Sutton Trilogy” deemed individuals to not be disabled if mitigating measures, such as mobility aids or medication, made their impairment no longer “substantially limit” a major life activity. The PKP Act explicitly overturned the “Sutton Trilogy” in California law, mentioning these cases by name.

This rationale for adopting the PKP Act is listed in the minutes of California’s Assembly Committee on Judiciary hearing on bill A.B. 2222 on April 11, 2000, which was the first time the precursor to the PKP Act was discussed in the legislature³⁷. The rationale section explicitly proposes the measures in the PKP Act in reaction to the court misinterpretations of “limits” and in reaction to the *Sutton* Trilogy. Given all this evidence it is highly unlikely that the PKP Act was

³⁶*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)).

³⁷See http://www.leginfo.ca.gov/pub/99-00/bill/asm/ab_2201-2250/ab_2222_vote_20000411_000002_asm_comm.html (accessed May 23, 2015).

enacted as an endogenous response to labor market conditions.

Online Appendix B: Details on Law Change Controls

There were three states other than California that changed their disability discrimination laws during the sample period of 1994 to 2007, with these changes being non-trivial but less important than California's PKP Act. These changes occurred in Maine in 2006 and 2007, Rhode Island in 2000, Washington in 2007. Because of these changes, I include four control variables: one each for Washington and Rhode Island, and two for Maine, with each variable equaling one when that state has the new law in effect.

Maine

Maine's disability discrimination laws followed those of the ADA until *Whitney v. Wal-Mart* 2006 ME 37³⁸ where the Maine Supreme Judicial Court ruled that Maine's definition of disability did not require the "substantially limits" requirement of the ADA. In response to *Whitney*, Maine's legislature passed a bill in 2007 (Laws 2007 c. 385, §3), effective June 21, 2007, which overturned *Whitney*, while also modifying the definition of disability slightly beyond that of the ADA at the time. These changes mirror a portion of the changes in the PKP Act.

One change in this act was to deem individuals with certain impairments disabled regardless of if their impairments "substantially limit" a major life activity. These conditions are:

"...absent, artificial or replacement limbs hands, feet or vital organs; alcoholism; amyotrophic lateral sclerosis; bipolar disorder blindness or abnormal vision loss; cancer; cerebral palsy; chronic obstructive pulmonary disease; Crohn's disease; cystic fibrosis; deafness or abnormal hearing loss diabetes; substantial disfigurement; epilepsy; heart disease HIV or AIDS; kidney or renal diseases; lupus; major depressive disorder; mastectomy mental retardation; multiple sclerosis; muscular dystrophy;

³⁸See https://scholar.google.com/scholar_case?case=12271024718339929818&hl=en&as_sdt=6&as_vis=1&oi=scholar (accessed Apr. 18, 2015)

paralysis; Parkinson’s disease; pervasive developmental disorders; rheumatoid arthritis; schizophrenia and acquired brain injury;” (MRSA §4553-A (1)(B))

Another change was to ignore mitigating measures, contrary to the *Sutton* trilogy. To control for both *Whitney* and the subsequent act, I include an indicator variable for Maine in 2006 (the year of *Whitney*) and another indicator variable for Maine in 2007, when the act took effect.

Rhode Island

Rhode Island amended their disability discrimination law (Laws 2000, c. 507, §2) effective July 22, 2000, to ensure that mitigating measures were not considered in the determination of disability. The act stated that: “...whether a person has a disability shall be determined without regard to the availability or use of mitigating measures, such as reasonable accommodations, prosthetic devices, medications or auxiliary aids.” (RI ST §42-87-1 (A)(1)(e)) This corresponds to one of the changes in the PKP Act.

Washington

Washington’s definition of disability was vague before an amendment (Laws 2007, c. 317), effective May 4, 2007, changed Washington’s definition to follow a medical diagnosis definition like Connecticut, Illinois, New Jersey, and New York. These medical diagnosis definitions deem individuals to be disabled without requiring them to show that their condition “substantially limits” a major life activity (Neumark, Song and Button 2016; Long 2004). Prior to this amendment, Wash. Rev. Code §49.60.180 prohibited discrimination on the basis of physical disability, but the term was not well defined (Long, 2004). It appears that Washington’s lack of definition caused courts to rely on the federal definition of disability, which included the “substantially limits” requirement. After the 2007 amendment, Washington law stated 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 $\hat{\text{A}}\text{g}$ 49.60.040 (7)(a))

Online Appendix C: Conley-Taber Confidence Intervals

As is common in studies of state-level policies, I present regression result where I cluster my standard errors at the level of policy variation, which here is the state level (Bertrand, Duflo and Mullainathan, 2004). This is to account for arbitrary serial correlation within states. However, Conley and Taber (2011) show using Monte Carlo experimental evidence that when a DD is used in a setting with few treated groups, confidence intervals constructed using clustered standard errors significantly over-reject the null hypothesis, leading to increased Type I Error.

They propose a method to create confidence intervals (“Conley-Taber confidence intervals”) that provide much more accurate inference. Their method does not require the typical asymptotic assumption that both the number of treated and untreated groups is large but rather assumes only that the number of untreated groups is large, but the number of treated groups and the time span of the data are held fixed. To construct the Conley-Taber confidence intervals, information from the untreated groups is used to consistently estimate the distribution of the DD point estimator. Their method performs significantly better in Monte Carlo experiments, particularly when there is only one treated unit. See Conley and Taber (2011) for a more technical and thorough explanation.

This appendix provides additional details on my construction of Conley-Taber confidence intervals. For the DD (Equation 2), I follow the procedure outlined by Conley and Taber (2011) exactly, using their code and only making minor modifications (e.g., adding sampling weights). The general procedure, closely following the exposition in Conley and Taber (2011), is as follows. Consider the following DD regression:

$$Y_{jt} = \alpha d_{jt} + X'_{jt}\beta + \theta_j + \gamma_t + \epsilon_{jt} \quad (6)$$

In this equation, groups are denoted by j , where group $j = 1$ is treated, and all others $j = 2 \dots N$ are untreated, and time is denoted by t , ranging from $t = 1 \dots T$. The indicator variable d denotes treatment status. X_{jt} is a vector of regressors, θ_j are group fixed effects and γ_t are time fixed effects.

Consider a generic variable Z_{jt} . Then define the following averages:

$$\begin{aligned} \bar{Z}_j &= \frac{1}{T} \sum_{t=1}^T Z_{jt} \\ \bar{Z}_t &= \frac{1}{N} \sum_{j=1}^N Z_{jt} \\ \bar{Z} &= \frac{1}{NT} \sum_{j=1}^N \sum_{t=1}^T Z_{jt} \end{aligned} \quad (7)$$

Then define variable \tilde{Z}_{jt} such that it equals the residual of the projection of Z_{jt} on the group and time indicators:

$$\tilde{Z}_{jt} = Z_{jt} - \bar{Z}_j - \bar{Z}_t + \bar{Z} \quad (8)$$

The DD regression can be re-written using this notation:

$$\tilde{Y}_{jt} = \alpha \tilde{d}_{jt} + \tilde{X}'_{jt}\beta + \tilde{\epsilon}_{jt} \quad (9)$$

After running the above regression, group the residuals, $\hat{\tilde{\epsilon}}_{jt}$, by each group j . Conley-Taber confidence intervals can be created by calculating the following for each group's residuals:

$$\hat{\Gamma} = \frac{\sum_{t=1}^T (d_{1t} - \bar{d}_1) \hat{\tilde{\epsilon}}_{jt}}{\sum_{t=1}^T (d_{1t} - \bar{d}_1)^2} \quad (10)$$

The distribution of $\hat{\Gamma}$ can be used to construct Conley-Taber confidence intervals by taking per-

centiles of this distribution. In my DD application, j indexes states, of which there are 50, plus DC. Given that there are only 51 groups, it is not possible to calculate 99% confidence intervals, but 95% are possible.

The procedure to construct Conley-Taber confidence intervals for the DDD is only slightly different. \tilde{Y}_{jt} is instead the projection of Y_{jt} on disabled by state, state by year, and disabled by year indicators. Instead of the groups, j , being states, as in the DD, the groups in the DDD are defined by disabled by state, which is 102 groups. Thus this added disabled versus non-disabled dimension doubles the number of groups, although there are still not enough to calculate 99% confidence intervals (at least 200 would be required).

One thing to note is that my results show that Conley-Taber confidence intervals are much larger without time trends. This occurs because the time trends soak up a significant amount of the state-by-year (DD) or state-by-disabled-by-year (DDD) variation. Suppose linear time trends are included in Equation 6 and \tilde{X}_{jt} in Equation 9, both in Online Appendix C. Then the estimated error term, $\hat{\epsilon}_{jt}$, has significantly less variance, making the distribution of $\hat{\Gamma}$ in Equation 10, and thus the Conley-Taber confidence interval, less wide.

Online Appendix D: Additional Estimates

Table A1 presents employment results using weeks worked last year (Panel (a)), and the employment indicator (Panels (b) and (c)), but under a logit model instead of a linear probability model. Panel (b) presents results using a linear probability model to ensure that results are not sensitive to the particular functional form used. Also presented are logit regression results but without the use of population weights (Panel (c)), which are used in all other regressions. The unweighted logit results are included because the Conley-Taber procedure does not work for logit regressions with population weights³⁹ Because the unweighted estimates are similar to the weighted estimates, the Conley-Taber confidence intervals for the unweighted estimates suggest that the confidence intervals for the weighted estimates would be similar if they could be calculated. Unfortunately, Conley-Taber confidence intervals could not be calculated after marginal effects calculations, although these confidence intervals should be the same in terms of inference as the Conley-Taber confidence intervals for the corresponding logit estimates. As the results in Table A1 show, the employment effect estimates are similar to those presented in Table 4. The statistical significance of the logit results are also no longer sensitive in statistical significance to the inclusion or exclusion of state-specific linear time trends, although the magnitude of the estimates is still sensitive. Tables A2 and A3 present logit regression results for unemployment and labor force non-participation, respectively, and these estimates are similar to those in Table 4. Table A7 presents DDD estimates but with unemployment rate control included interacted with the disability indicator variable. Table A8 presents DD-Disabled and DDD estimates with Maine, Rhode Island, and Washington dropped instead of controlling for their legal changes using indicator variables.

³⁹To employ the Conley-Taber procedure, residuals need to be saved to be used in computations. However, the Stata “predict” command that would be used to do this is not allowed after logit regressions that use population weights (“pweights”). Alternative strategies, such as using the “glm” command did not work. More information is available upon request.

Table A1: Effects on Employment - Weeks Worked and Logit Regressions

(1)	(2)	(3)	(4)	(5)	(6)
		Identification:			
DD	DD	DD	DD	DDD	DDD
Disabled vs Not Pre vs Post (Within CA)		CA vs. Not CA Pre vs Post (Disabled Only)		Disabled vs Not CA vs. Not CA Pre vs Post	
		Includes Linear Time Trends:			
No	Yes	No	Yes	No	Yes
(a) Weeks Worked Last Calendar Year					
-2.07	1.72	0.52	1.42	0.36	1.32
[-2.88, -1.26]**	[1.59, 1.86]***	[-0.05, 1.09]*	[0.63, 2.21]***	[-0.16, 0.88]	[0.43, 2.22]***
(N/A)	(N/A)	(-1.73, 5.52)	(0.24, 3.35)**	(-1.22, 4.67)	(0.53, 2.11)**
(b) Employed - Logit					
-0.227	0.238	0.141	0.232	0.112	0.190
[-0.367, -0.086]***	[-0.043, 0.519]*	[0.066, 0.221]***	[0.131, 0.332]***	[0.040, 0.184]***	[0.086, 0.293]***
(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
<i>Average Marginal Effect</i>					
-0.034	0.035	0.023	0.037	0.018	0.029
[-0.055, -0.013]***	[-0.006, 0.077]*	[0.011, 0.035]***	[0.021, 0.053]***	[0.009, 0.028]***	[0.013, 0.045]***
(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
(c) Employed - Logit (Unweighted)					
-0.201	0.262	0.143	0.264	0.138	0.225
[-0.333, -0.070]***	[-0.001, 0.525]*	[0.081, 0.206]***	[0.181, 0.348]***	[0.082, 0.195]***	[0.138, 0.313]***
(N/A)	(N/A)	(0.014, 0.358)**	(0.220, 0.373)**	(0.035, 0.277)**	(0.169, 0.288)**
<i>Average Marginal Effect</i>					
-0.030	0.039	0.023	0.043	0.020	0.033
[-0.050, -0.011]***	[-0.000, 0.079]*	[0.013, 0.034]***	[0.029, 0.056]***	[0.012, 0.029]***	[0.020, 0.046]***
(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)

Notes: See the notes to Table 2 and 4. Regressions are weighted using population weights except Panel (c). Conley-Taber confidence intervals cannot be calculated for the weighted logit regressions or for the marginal effects.

Table A2: Effects on Unemployment - Logit Regressions

(1)	(2)	(3)	(4)	(5)	(6)
Identification:					
DD	DD	DD	DD	DDD	DDD
Disabled vs Not Pre vs Post (Within CA)		CA vs. Not CA Pre vs Post (Disabled Only)		Disabled vs Not CA vs. Not CA Pre vs Post	
Includes Linear Time Trends:					
No	Yes	No	Yes	No	Yes
(a) Unemployed - Logit					
-0.141	-0.471	-0.036	-0.536	-0.088	-0.342
[-0.419, 0.138]	[-1.045, 0.104]	[-0.201, 0.129]	[-0.726, -0.346]***	[-0.238, 0.061]	[-0.545, -0.139]***
(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
<i>Average Marginal Effect</i>					
-0.006	-0.020	-0.001	-0.014	-0.003	-0.010
[-0.017, 0.006]	[-0.043, 0.004]	[-0.005, 0.003]	[-0.019, -0.009]***	[-0.007, 0.0017]	[-0.015, -0.004]***
(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
(b) Unemployed - Logit (Unweighted)					
†	-0.396	-0.004	-0.444	-0.050	-0.282
	[-0.918, 0.126]	[-0.141, 0.133]	[-0.633, -0.255]***	[-0.151, 0.052]	[-0.470, -0.094]***
	(N/A)	(-0.116, 0.097)	(-0.523, -0.385)**	(-0.139, 0.049)	(-0.342, -0.229)**
<i>Average Marginal Effect</i>					
†	-0.016	-0.000	-0.012	-0.001	-0.008
	[-0.038, 0.005]	[-0.004, 0.004]	[-0.017, -0.007]***	[-0.004, 0.001]	[-0.013, -0.003]***
	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)

Notes: See the notes to Tables 2, 4, and A1. † = Estimate missing due to lack of convergence.

Table A3: Effects on Labor Force Non-Participation - Logit Regressions

(1)	(2)	(3)	(4)	(5)	(6)
Identification:					
DD	DD	DD	DD	DDD	DDD
Disabled vs Not Pre vs Post (Within CA)		CA vs. Not CA Pre vs Post (Disabled Only)		Disabled vs Not CA vs. Not CA Pre vs Post	
Includes Linear Time Trends:					
No	Yes	No	Yes	No	Yes
<i>(a) Logit</i>					
0.229	-0.138	-0.121	-0.126	-0.096	-0.133
[0.085, 0.372]***	[-0.429, 0.153]	[-0.188, -0.053]***	[-0.227, -0.024]**	[-0.155, -0.037]***	[-0.237, -0.028]**
(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
<i>Average Marginal Effect</i>					
0.029	-0.017	-0.022	-0.023	-0.012	-0.016
[0.011, 0.047]***	[-0.054, 0.019]	[-0.034, -0.010]***	[-0.041, -0.004]**	[-0.019, -0.004]***	[-0.029, -0.003]**
(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)
<i>(b) Logit (Unweighted)</i>					
0.203	-0.178	-0.127	-0.174	-0.129	-0.180
[0.067, 0.339]***	[-0.451, 0.096]	[-0.183, -0.071]***	[-0.261, -0.088]***	[-0.176, -0.082]***	[-0.272, -0.088]***
(N/A)	(N/A)	(-0.314, 0.002)	(-0.275, -0.121)**	(-0.246, -0.025)**	(-0.245, -0.103)**
<i>Average Marginal Effect</i>					
0.025	-0.023	-0.023	-0.032	-0.015	-0.021
[0.009, 0.043]***	[-0.057, 0.012]	[-0.033, -0.013]***	[-0.048, -0.016]***	[-0.020, -0.010]***	[-0.032, -0.010]***
(N/A)	(N/A)	(N/A)	(N/A)	(N/A)	(N/A)

Notes: See the notes to Tables 2, 4, and A1.

Table A4: Effects on Employment Status - Men Only

(1)	(2)	(3)	(4)	(5)	(6)
Identification:					
DD	DD	DD	DD	DDD	DDD
Disabled vs Not Pre vs Post (Within CA)		CA vs. Not CA Pre vs Post (Disabled Only)		Disabled vs Not CA vs. Not CA Pre vs Post	
Includes Linear Time Trends:					
No	Yes	No	Yes	No	Yes
(a) Employed					
-0.033	0.039	0.030	0.033	0.006	0.036
[-0.041, -0.025]**	[0.012, 0.066]**	[0.012, 0.047]***	[0.013, 0.052]***	[-0.009, 0.020]	[0.014, 0.058]***
(N/A)	(N/A)	(-0.031, 0.154)	(-0.004, 0.080)*	(-0.041, 0.137)	(-0.000, 0.071)*
(b) Unemployed					
-0.012	-0.042	-0.009	-0.044	-0.004	-0.037
[-0.013, -0.010]***	[-0.043, -0.041]***	[-0.016, -0.002]**	[-0.050, -0.037]***	[-0.008, 0.000]*	[-0.043, -0.030]***
(N/A)	(N/A)	(-0.036, 0.014)	(-0.058, -0.028)**	(-0.028, 0.021)	(-0.044, -0.022)**
(c) Not in Labor Force					
0.044	0.003	-0.021	0.011	-0.002	0.001
[0.035, 0.054]**	[-0.023, 0.028]	[-0.039, -0.003]**	[-0.009, 0.031]	[-0.016, 0.012]	[-0.021, 0.023]
(N/A)	(N/A)	(-0.127, 0.057)	(-0.031, 0.050)	(-0.106, 0.052)	(-0.033, 0.037)

Notes: See the notes to Table 4 .

Table A5: Effects on Employment Status - Women Only

(1)	(2)	(3)	(4)	(5)	(6)
Identification:					
DD	DD	DD	DD	DDD	DDD
Disabled vs Not Pre vs Post (Within CA)		CA vs. Not CA Pre vs Post (Disabled Only)		Disabled vs Not CA vs. Not CA Pre vs Post	
Includes Linear Time Trends:					
No	Yes	No	Yes	No	Yes
(a) Employed					
-0.047	0.034	0.012	0.043	0.007	0.039
[-0.081, -0.013]**	[0.021, 0.047]**	[0.000, 0.024]**	[0.023, 0.063]***	[-0.002, 0.016]	[0.019, 0.059]***
(N/A)	(N/A)	(-0.045, 0.105)	(0.009, 0.089)**	(-0.034, 0.076)	(0.009, 0.072)**
(b) Unemployed					
0.003	0.006	0.002	0.008	0.004	0.009
[-0.001, 0.007]*	[0.004, 0.008]**	[-0.003, 0.007]	[0.001, 0.016]**	[0.000, 0.007]**	[0.002, 0.017]**
(N/A)	(N/A)	(-0.024, 0.031)	(-0.003, 0.021)	(-0.016, 0.026)	(-0.003, 0.015)*
(c) Not in Labor Force					
0.045	-0.040	-0.014	-0.052	-0.011	-0.048
[0.007, 0.082]**	[-0.056, -0.025]**	[-0.024, -0.004]***	[-0.073, -0.031]***	[-0.019, -0.002]**	[-0.068, -0.029]***
(N/A)	(N/A)	(-0.081, 0.069)	(-0.091, -0.008)**	(-0.062, 0.037)	(-0.079, -0.015)**

Notes: See the notes to Table 4.

Table A6: Effects on Employment Status - Including State-Specific Quadratic Time Trends

(1)	(2)	(3)	(4)	(5)	(6)
DD	DD	DD	DD	DDD	DDD
Disabled vs Not Pre vs Post (Within CA)		CA vs. Not CA Pre vs Post (Disabled Only) Time Trends:		Disabled vs Not CA vs. Not CA Pre vs Post	
Linear	Quadratic	Linear	Quadratic	Linear	Quadratic
(a) Employed					
0.037	0.037	0.039	0.037	0.038	0.036
[0.025, 0.049]**	[0.027, 0.049]**	[0.023, 0.055]***	[0.021, 0.053]***	[0.020, 0.056]***	[0.019, 0.053]***
(N/A)	(N/A)	(0.013, 0.087)**	(0.010, 0.076)**	(0.017, 0.062)**	(0.016, 0.057)**
(b) Unemployed					
-0.018	-0.018	-0.016	-0.016	-0.014	-0.015
[-0.025, -0.011]**	[-0.025, -0.011]**	[-0.021, -0.011]***	[-0.021, -0.011]***	[-0.019, -0.009]***	[-0.020, -0.009]***
(N/A)	(N/A)	(-0.026, -0.006)**	(-0.026, -0.006)**	(-0.021, -0.006)**	(,)
(c) Not in Labor Force					
-0.019	-0.020	-0.023	-0.021	-0.024	-0.021
[-0.024, -0.015]**	[-0.024, -0.016]**	[-0.040, -0.006]**	[-0.038, -0.004]**	[-0.042, -0.006]***	[-0.038, -0.005]**
(N/A)	(N/A)	(-0.051, 0.006)	(-0.050, 0.010)	(-0.045, -0.000)**	(-0.037, 0.004)*

Notes: See the notes to Table 4.

Table A7: Effects on Employment Status - Including Disabled by State Unemployment Rate Control in the DDD Regressions

	(1)	(2)
(a) Employed		
	0.020	0.040
	[0.008, 0.032]***	[0.024, 0.056]***
	(-0.020, 0.105)	(0.018, 0.060)**
(b) Unemployed		
	-0.003	-0.013
	[-0.008, 0.001]	[-0.018, -0.008]***
	(-0.017, 0.011)	(-0.020, -0.004)**
(c) Labor Force Participation		
	0.016	0.027
	[0.006, 0.027]	[0.010, 0.043]***
	(-0.022, 0.091)	(0.003, 0.044)**
Linear Time Trends:		
		X

Notes: See the notes to Table 1, 3, and 4.

Table A8: Effects on Employment Status - Dropping Maine, Rhode Island, and Washington

(1)	(2)	(3)	(4)
Identification:			
DD	DD	DDD	DDD
CA vs. Not CA Pre vs Post (Disabled Only)			Disabled vs Not CA vs. Not CA Pre vs Post
(a) Employed			
0.023	0.042	0.009	0.044
[0.011, 0.036]***	[0.026, 0.058]***	[0.000, 0.0118]**	[0.027, 0.062]***
(-0.023, 0.117)	(0.014, 0.088)**	(-0.019, 0.098)	(0.026, 0.066)**
(b) Unemployed			
-0.004	-0.015	-0.001	-0.014
[-0.009, 0.001]*	[-0.020, -0.010]***	[-0.003, 0.002]	[-0.019, -0.008]***
(-0.017, 0.018)	(-0.026, -0.006)**	(-0.014, 0.012)	(-0.021, -0.006)**
(c) Labor Force Participation			
0.019	0.026	0.009	0.031
[0.007, 0.032]***	[0.009, 0.043]***	[-0.001, 0.018]*	[0.014, 0.048]***
(-0.101, 0.041)	(-0.004, 0.053)*	(-0.029, 0.078)	(0.009, 0.051)**
Linear Time Trends:			
	X		X

Notes: See the notes to Table 1, 3, and 4.

Online Appendix E – Inference for the DD-CA following Donald and Lang (2007)

The DD-CA only has two groups, those with disabilities in California and those without disabilities in California, mirroring other notable papers analyzing the effect of the ADA (e.g. Acemoglu and Angrist, 2001; DeLeire, 2000; Kruse and Schur, 2003). For the DD-CA I present 95% confidence intervals based on heteroskedastic-robust standard errors and based on a more credible approach outlined in Donald and Lang (2007). The approach suggested in Donald and Lang (2007), which involves collapsing the data to group-by-year means, is one way to relax the asymptotic assumption that the number of groups approaches infinity.¹ This assumption is much more likely to be unrealistic in a classic difference-in-differences with two groups, such as here with the DD-CA.

Here I discuss further the approach, stemming from Donald and Lang (2007), that I use to construct standard errors. The approach requires collapsing the data to group (with disabilities, without disabilities)-by-year estimates. Before collapsing the data to these means, I net out the effects of demographic characteristics by regressing the outcome variable (Y_i), at the individual level (i), on the demographic controls (X_i) specified in equation (4) in the main paper. This is:

$$Y_i = \alpha + X_i\beta + \varepsilon_i$$

From this regression, I extract the residuals (ε_i) which represent the variation in Y_i that is not explained by these demographic controls. I then collapse these to the group-by-year level (two groups and 14 years), which mirrors Donald and Lang (2007)'s replication of Gruber and Poterba (1994) (see pp. 227). After generating group-by-year means, I create annual difference-in-differences estimates, as follows:

¹ There are other suggestions in the literature depending on which statistical assumptions are the most realistic to make (or not make) and the number and nature of the treatment and control groups (e.g., Brewer, Crossley, and Joyce [2013]; Conley and Taber [2011]; Cameron, Gelbach, and Miller [2008], Cameron and Miler [2015], and MacKinnon and Webb [2017]).

$$\bar{Y}_t = (\bar{Y}_t^d - \bar{Y}_{t-1}^d) - (\bar{Y}_t - \bar{Y}_{t-1})$$

Where time t is the current year and time $t-1$ is the previous year. The first term in parenthesis is the first difference for those with disabilities (d superscript) and the second term is the first difference for those without disabilities. Taking this difference-in-differences makes the assumption that this difference-in-differences is i.i.d., meaning that the difference $\bar{Y}_t^d - \bar{Y}_t$ is a random walk.

I then estimate the following regression:

$$\bar{Y}_t = \alpha + \alpha_{DD-CA} PKPA_{ct} + \varepsilon_t$$

Where $PKPA_{ct}$ is simply an indicator variable for the year being 2001. I run this regression both with and without the constant. Including the constant nets out the average difference-in-differences, which would be non-zero if there are different trends in the outcome variable, such as employing declining relatively for individuals with disabilities relative to individuals without disabilities. This is akin to including disability-status-specific linear time trends. Dropping the constant assumes that the average differences-in-differences is zero and thus that there are no differential trends. Given this, the confidence interval in parenthesis in column (4) in Table 4 includes the constant and the confidence interval in parenthesis in column (3) does not. The point estimates from these regressions differ (so the confidence intervals presented are not centered on the point estimates presented in the table, which are based on a regression following equation (4)), but regardless these confidence intervals are very wide and never indicate statistical significance.

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