Spillovers from workers' compensation to Social Security Disability Insurance: evidence from Oregon

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Abstract

The two most important safety nets for workers suffering occupational injuries and illnesses are workers' compensation programs and Social Security Disability Insurance. Workers' compensation is the oldest social insurance program in the United States and Social Security Disability Insurance is the largest provider of cash benefits to individuals with a disability. The programs are linked because the injuries and illnesses that workers suffer can satisfy the requirements of both programs. In this paper, I examined the impact of an Oregon law (SB 757) that changed the calculation of a type of benefit provided under workers' compensation called permanent partial disability. This study was designed to answer whether these changes led to spillover effects to applications for Social Security Disability Insurance. Using a difference-in-differences framework applied to data from the Social Security Administration, I did not find statistically significant results indicative of such effects. (JEL No. I18, J28, J32)

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1 Introduction

The two most important sources of benefits for workers suffering occupational injuries and illnesses (OIIs) are workers' compensation programs and Social Security Disability Insurance. Workers' compensation (WC) is the oldest form of social insurance in the United States, dating back to the early 20th century. Social Security Disability Insurance (DI) is the largest provider of cash benefits in the United States to individuals with a disability. WC is primarily administered by each state for its residents, while DI is a federal program.

WC and DI are linked because the OIIs that workers suffer can result in circumstances that satisfy the requirements of both programs. Workers with OIIs whose resulting impairment is expected to last for 12 months or result in death may be eligible for both WC and DI. Since the policy parameters of WC programs change often (Qiu and Grabell, 2015), this could presumably affect the rate of DI applications at the margin. Hence, in this paper, I seek to answer the question: How do changes in workers' compensation law spillover to applications for benefits from Social Security Disability Insurance?

To answer this question, I examined the impact of an Oregon law passed in 2003. In 2003, Oregon enacted SB 757, which amended the calculation of a type of WC called permanent partial disability (PPD). The changes in SB 757 applied to injuries suffered on or after January 1, 2005. The changes meant that some workers awarded PPD who were deemed unable to return to work received higher WC cash benefits.

The changes from SB 757 served as plausibly exogenous variation to identify how workers respond to changes in WC benefit amounts via their DI application behavior. I tested this empirically using workload data from the Social Security Administration and a difference-in-differences approach. I defined three separate control groups: the state of Washington, a synthetic control, and an equal weight control. I estimated the treatment effect against each separately. Moreover, I estimated the treatment effects with and without these covariates. All of my estimates implied treatment effects that I could not statistically distinguish from zero. In other words, I found no spillover effect from this change in Oregon's WC law to DI applications.

My paper contributes to the growing literature on the interactions between the two programs, and is to my knowledge the first paper to study these interactions using a difference-in-differences approach. There are two main themes in the literature. One theme is that costs of OIIs, which should have been borne by WC programs, are instead being paid through DI. Reville and Schoeni (2004) show using data from the Health and Retirement Study in 1992, for instance, that only 12 percent of respondents aged 51 to 61 with OIIs received WC benefits, but 29 percent had received DI. Leigh (2011) estimates that cost shifting along these lines means that WC covered less than 25 percent of the $250 billion of total costs of OIIs in 2007. This cost shifting may be especially prominent among more severe OIIs, as O'Leary et al. (2012) find in New Mexico.

The other theme, which is more directly addressed by my paper, involves the effects of WC policies. Prior work has examined the effects of WC programs becoming more restrictive, starting in the 1980s. These more restrictive policies were enacted because of employer concerns about the increasing costs of providing WC benefits. Authors have hypothesized that workers suffering OIIs substitute away from WC towards DI as WC becomes relatively less attractive. There is mixed evidence on this point empirically, however. Whereas Guo and Burton (2012) and Buffie and Baker (2015) find evidence of this effect, McInerney and Simon (2012) do not.

My paper proceeds as follows. Section 2 provides the background of the two programs. Section 3 motivates the empirical approach. Section 4 describes the data, control groups, and offers summary statistics. Section 5 estimates and discusses the treatment effect. Section 6 concludes.

2 Background

2.1 Workers' Compensation

Before states established WC programs, workers had two main avenues of seeking compensation for OIIs (Fishback and Kantor, 2000).[1] Prior to an OII, workers needed to negotiate higher wages

[1] Before states established WC programs, I am not aware of no-fault insurance policies that would have compensated workers for on-the-job injuries through medical and cash payments. Employers held liability insurance that insured them against lawsuits; employers also reached settlements with employees that compensated them for lost wages and

to compensate for more dangerous jobs; workers could purchase individual workplace accident insurance policies by paying premiums with these wage differentials.[2] After an OII, workers needed to reach a settlement with their employers or file suit against them for negligence. That is, workers could recoup their financial losses along with compensation for pain and suffering through the court system. In practice, litigation resembled a lottery: injured workers often received nothing because of employer defenses, but in a handful of cases recovered large sums. This type of system eventually proved untenable. WC represented a shift to a system based on no-fault liability that paid regardless of whether the employer or employee was responsible for an OII.

WC benefits comprise both medical and indemnity (i.e., cash) payments. The majority of approved WC claims are resolved as medical only (Welch et al., 2024). The amount of indemnity payments an injured worker receives depends on injury duration and extent. Temporary total disability covers an injured worker who cannot immediately return to work. Temporary partial disability applies to workers who return to work, but at reduced hours or wages. Impairments that remain after reaching so-called *maximum medical improvement* qualify for permanent benefits. At maximum medical improvement, the impairment is stable and not expected to get better with additional treatment. Insurers pay for permanent total or permanent partial disability based on the severity of an injury. Workers can receive an income from these WC benefits for the rest of their lives. In 2019, the value of all WC benefits paid across all states was $63 billion.[3]

2.2 Social Security Disability Insurance

During the Great Depression, FDR signed into law the Social Security Act of 1935 as part of her New Deal to support the economic security of Americans. The Act included benefits for retired workers but was silent on benefits for workers with disabilities. Discussions to add these benefits began in 1936, but there was debate over how stringent to make the definition of disability. It took

medical expenses. But this system was not no-fault. Thus, if employers believed the employee had any fault for the injury, they often paid nothing.

[2]These policies were not no-fault.

[3]The WC program is more generous in terms of access to benefits than DI.

20 years for Congress to pass the Social Security Act Amendments of 1956 and include benefits for workers with disabilities. The Social Security Administration (SSA) administers the DI program, which is funded through payroll taxes on American workers.

Workers with disabilities must meet two requirements to receive DI benefits. First, workers must financially qualify for DI by earning work credits. Workers earn up to four work credits each year by earning a certain amount of income. For 2022, workers earn one work credit for each $1,510 of income. Social Security rules require applicants to have an age-dependent number of work credits.[4] Second, workers must medically qualify for DI by having a disability that meets the Social Security definition. The definition of disability used by DI is strict. Individuals must have a disability that is expected to last for at least 12 months or result in death, while being unable to engage in substantial gainful activity (SGA). A worker is determined to be unable to engage in SGA based on the available medical and vocational evidence. A federally funded state agency known as a Disability Determination Service (DDS) makes this decision once the worker is found to financially qualify. If the DDS awards benefits, the beneficiary receives them until retirement subject to continuing disability review. In 2019, the SSA paid DI benefits of $126 billion to workers with disabilities.[5]

3 Motivation and SB 757

In Oregon, workers claiming WC benefits must notify their employer immediately after suffering an OII and choose an attending physician approved by the state for WC purposes. For DI, there is no time limit on when a worker can apply for benefits nor is there a requirement to choose among approved physicians. Workers receiving benefits from both programs have their total amount offset (i.e., capped) at 80% of their average wage prior to disability.

Both programs are linked because OIIs occasionally result in circumstances that satisfy the requirements of both programs. To explore these linkages empirically, I exploited plausibly ex-

[4]For example, workers who apply for DI with a disability that started between ages 31 and 42 need 20 credits.
[5]This makes the DI program significantly more generous in terms of total spending than WC.

ogenous variation as a result of a law that changed the calculation of permanent partial disability (PPD) benefits in Oregon.[6] Known as Senate Bill 757 (SB 757), this law allowed *work disability*, an input into the calculation of PPD benefits, to apply to all OIIs on or after the implementation date of January 1, 2005. Previously, certain OIIs were ineligible for work disability, even if those OIIs reduced a worker's ability to return to work. These OIIs were known as *scheduled* OIIs. There were approximately 15 scheduled OIIs, and reflected injuries that affected the bodily extremities, vision, or hearing. SB 757 eliminated the distinction between scheduled and unscheduled OIIs. The law made additional changes as can be seen in the pre- and post-SB 757 benefit formulas:

$$\text{PPD}_{it} = \begin{cases} p_i^m \cdot \text{B}_{it}^S & \text{if } S = 1 \\ f(p_i^m + K_i \cdot p_i^k) & \text{if } S = 0 \end{cases} \qquad \text{(Pre-SB 757)}$$

$$\text{PPD}_{it} = p_i^m \cdot 100 \cdot \text{SAWW}_t + K_i \cdot (p_i^m + p_i^k) \cdot 150 \cdot w_{it} \qquad \text{(Post-SB 757)}$$

In the formulas, PPD_{it} is the PPD benefit amount of worker i suffering an OII in year t. p_i^m is the impairment rating, which is the extent of the loss of function or use of a body part. Pre-SB 757, this was defined in relation to the injured body part for scheduled OIIs and in relation to the whole body for unscheduled OIIs. Post-SB 757, this was defined in relation to the whole body. B_{it}^S is the maximum scheduled benefit for scheduled OIIs. S represents whether an OII was scheduled (= 1) or not (= 0). K_i is an eligibility for work disability indicator for worker i. p_i^k is the work disability rating. $f(\cdot)$ is a convex kinked function defined by statute that is increasing in p_i^k and p_i^m. SAWW_t is the state average weekly wage in Oregon for year t. w_{it} is the worker's pre-OII weekly wage.

Work disability represents the extent to which an injury reduces a worker's ability to return to work at that worker's regular job. An award of work disability in the PPD benefit is contingent on the worker being unable to return to the worker's regular job. This determination is made by a worker's

[6] In Oregon, PPD benefits are paid monthly by a WC insurer up to the calculated PPD benefit amount with two exceptions. One exception is that any PPD award not exceeding $6,000 must be paid in a lump sum. The other exception is that a worker may receive approval from the WC insurer for a lump sum payment. The offset of a WC lump sum payment on DI benefits is calculated by SSA *as if* the WC payments were made monthly.

Table 1: SB 757 Example

	Pre-SB 757		*Post-SB 757*	
Parameter	Worker A	Worker B	Worker C	Worker D
Date of OII	12/31/2004	12/31/2004	1/1/2005	1/1/2005
Scheduled Injury?	Yes	No	N/A	N/A
Eligible for Work Disability?	No	Yes	No	Yes
Maximum Scheduled Benefit ($)	178,880	178,880	N/A	N/A
Impairment Rating %	5	5	5	5
Work Disability Rating %	N/A	10	N/A	10
State Average Weekly Wage ($)	689	689	689	689
Worker's Pre-Injury Weekly Wage ($)	400	400	400	400
WC PPD Benefit ($)	**8,944**	**8,832**	**3,443**	**12,443**

Example drawn from Mullen and Rennane (2021).

attending physician once the worker is determined to reach maximum medical improvement.[7] Workers who are cleared by their attending physician to return to their regular job do not receive work disability.

Consider the example of the workers shown in Table 1, which is drawn from Mullen and Rennane (2021). Workers A and B qualified for PPD benefits pre-SB 757 with an OII date of December 31, 2004 whereas Workers C and D qualified for PPD benefits post-SB 757 with an OII date of January 1, 2005. Assume Workers A and C had the same OII. Likewise, assume that Workers B and D had the same OII. The maximum scheduled benefit pre-757 was $178,880 (the actual value for 2002 through 2004). All workers have an impairment rating of 5 percent. Workers B and D additionally qualified for work disability with a 10 percent rating. The state average weekly wage was $689 (the actual value for July 1, 2004 through June 30, 2005). All workers additionally

[7]There is no restriction on returning to work, even if WC benefits are paid as a lump sum. Work disability is not reduced once awarded.

had a pre-injury weekly wage of $400.

This example demonstrates that Worker A and Worker B received approximately equal PPD benefits, with a difference of only 1 percent of the average of the two values. However, the situation changes substantially after the implementation of SB 757. Worker C would have received $8,944 under the pre-SB 757 calculation, but instead receives only $3,443 under the post-SB 757 calculation, a decrease of 62 percent. Conversely, Worker D would have received $8,832 under the pre-SB 757 calculation, but instead receives $12,443, an increase of 41 percent. This shows that eligibility for work disability did not necessarily lead to significant differences in benefits pre-SB 757, but could have a dramatic difference post-SB 757. Indeed, Worker D receives 3.6 times the PPD benefit of Worker C by qualifying for work disability with a 10 percent rating.

From this discussion, there is a potentially large incentive to workers to try and stay out of their regular jobs because only then can they receive work disability. Workers might be able to achieve this, for instance, by searching for an accommodating attending physician. Such physicians would presumably be known to lawyers working on WC cases for some workers. Mullen and Rennane (2021) find that the changes to the calculation of PPD benefits from SB 757 resulted in an income elasticity of labor supply of between -0.03 and -0.02. This means that the increase in PPD award amounts resulting from making additional workers eligible for work disability payments is associated with an increase in workers out of the labor force. Presumably, these workers would not be engaging in SGA. Since not engaging in SGA is a prerequisite to being approved for DI benefits, I hypothesized that these circumstances would lead to an increase in DI applications. The remainder of this paper tests this hypothesis.

4 Data, Control Groups, and Summary Statistics

4.1 Data

The data on DI applications comes from the State Agency Monthly Workload file published by the SSA.[8] This dataset shows the DI applications referred to each state's DDS by year and month. The SSA typically forwards an application to the DDS of the applicant's state of residence. A limitation of this dataset is that workload data do not perfectly correspond to residence data due to SSA processing idiosyncrasies.[9]

The response variable in my equations were a state's number of DI only applications divided by that state's population of adults aged 25-64. (This rate is multiplied by 100,000 for ease of exposition.) The numerator has monthly observations from the State Agency Monthly Workload file. The denominator has yearly observations from the Expanded State Employment Status Demographic Data (ESES). The ESES dataset is a product of the Bureau of Labor Statistics and includes state-level data on population, labor force, employment, and unemployment. The response variable was calculated for each state at the year-month level. My study period was from 2001 through 2007, so there are 84 year-month observations of each state. This means the response variable has 168 total observations in each estimation.

As covariates, I included the unemployment rate, female employment share, disability prevalence, and mean income. I calculated unemployment rates and shares of female employment from ESES. I calculated disability prevalence and mean income from the Annual Social and Economic Supplement (ASEC) of the Current Population Survey (CPS).[10] The Census Bureau conducts the ASEC surveys each year in February through March. The ASEC provides richer information than the basic monthly labor force surveys of the CPS. I defined income as pre-tax wage and salary

[8] DI applications can be submitted as DI only applications, or concurrently with applications for Supplemental Security Income, a federal program for applicants with limited resources and work history. I restrict what follows to applications for DI only.

[9] I do not have access to data based on applicant residence, but I expect my data closely matches this ideal. This is because the primary purpose of a state DDS is to review applications from residents of that state.

[10] I obtained this dataset from Flood et al. (2024). This dataset is an IPUMS product of the Institute for Social Research and Data Innovation at the University of Minnesota. IPUMS makes analyzing the CPS user-friendly by, for example, maintaining consistent variable coding across years.

Table 2: Synthetic Control Weights

State	Weight
Arizona	0.031
Colorado	0.102
Hawaii	0.197
Idaho	0.116
New Mexico	0.118
Utah	0.189
Washington	0.220
Wyoming	0.027

Weights are calculated based on the method developed by Arkhangelsky et al. (2021).

income. Disability prevalence was calculated as the percentage of adults aged 25-64 in a state who are disabled. I defined a person as disabled if that person has any of the following indications in the ASEC: (1) a disability limits or prevents work; (2) health reasons led to a separation from employment; or, (3) poor health status.[11]

4.2 Control Groups and Summary Statistics

I used three control groups: the state of Washington, a synthetic control, and an equal weight control. I estimated weights for the synthetic control using the method developed by Arkhangelsky et al. (2021). Their method chooses unit weights so that the synthetic control most closely matches the trend of the response variable in the period before treatment. Due to significant month-by-month fluctuations in the monthly series, I created the synthetic control based on yearly means. Otherwise, the weights I obtained for the synthetic control were qualitatively similar to equal weight. I considered for inclusion in the synthetic control states in the Western Census region that did not have significant changes to their workers' compensation programs in 2001 through 2007; this results in eight states.[12] Table 2 shows the weight of each state that makes up the synthetic control. The synthetic control weights Washington the most, at a weight of 0.220. As a comparison

[11] This definition corresponds to DISABWRK = 2, QUITSICK = 2, or HEALTH = 5 in the IPUMS dataset.

[12] Alaska, California, Montana, and Nevada had potentially confounding changes to their WC programs. See Qiu and Grabell (2015) for specific details.

Table 3: Descriptive Statistics

Adults Aged 25-64	Oregon	Washington	Synthetic	Equal Weight
Population	1,931,429	3,332,857	1,615,775	1,552,036
	(7,165)	(17,154)	(42,667)	(42,660)
Unemployment Rate %	5.39	4.85	3.67	3.58
	(0.10)	(0.11)	(0.04)	(0.04)
Female Employment Share %	45.79	46.08	45.78	45.57
	(0.07)	(0.04)	(0.06)	(0.06)
Disability Prevalence %	11.18	11.03	9.25	9.26
	(0.08)	(0.08)	(0.06)	(0.06)
Mean Income $	34,596	38,531	35,339	34,878
	(137)	(111)	(129)	(140)
Number of observations	84	84	672	672

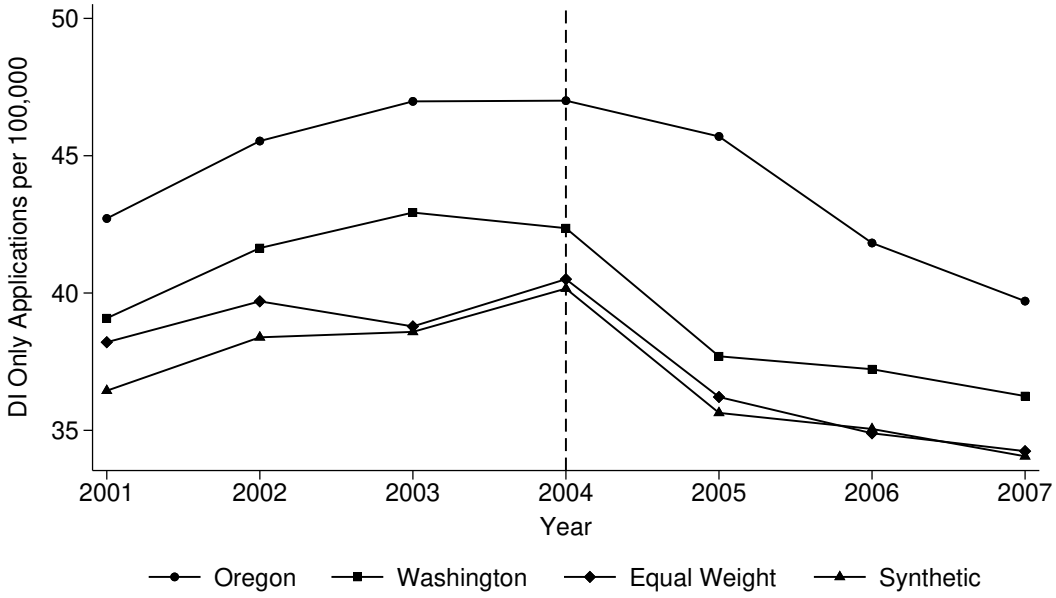
Values are sample means over the time period of 2001 through 2007 ($T = 84$).
Standard errors are in parentheses.

to the synthetic control, I also created an equal weight control. The equal weight control simply assigned a weight of $1/8$ to each of the eight states.

Table 3 shows descriptive statistics for Oregon, Washington, the synthetic control, and the equal weight control. The population of the synthetic and equal weight controls more closely match that of Oregon than that of Washington. This is also the case for the female employment share and mean income. On the other hand, the synthetic and equal weight controls have a relatively lower unemployment rate and disability prevalence than Oregon. But the most important comparison is that of the response variable (DI only applications per 100,000 adults aged 25 through 64) over time.

Figure 1 shows an observed means plot of the response variable for Oregon, Washington, the synthetic control, and the equal weight control. As can be seen in the figure, Oregon and the three controls exhibit roughly parallel trends until 2005. In 2005, Oregon decreases slightly whereas Washington, the synthetic control, and the equal weight control decrease more substantially. This

Figure 1: Observed Means Plot of DI Only Applications per 100,000 Adults Aged 25-64



motivates a difference-in-differences approach because the key identifying assumption in this approach is that of parallel trends prior to treatment.

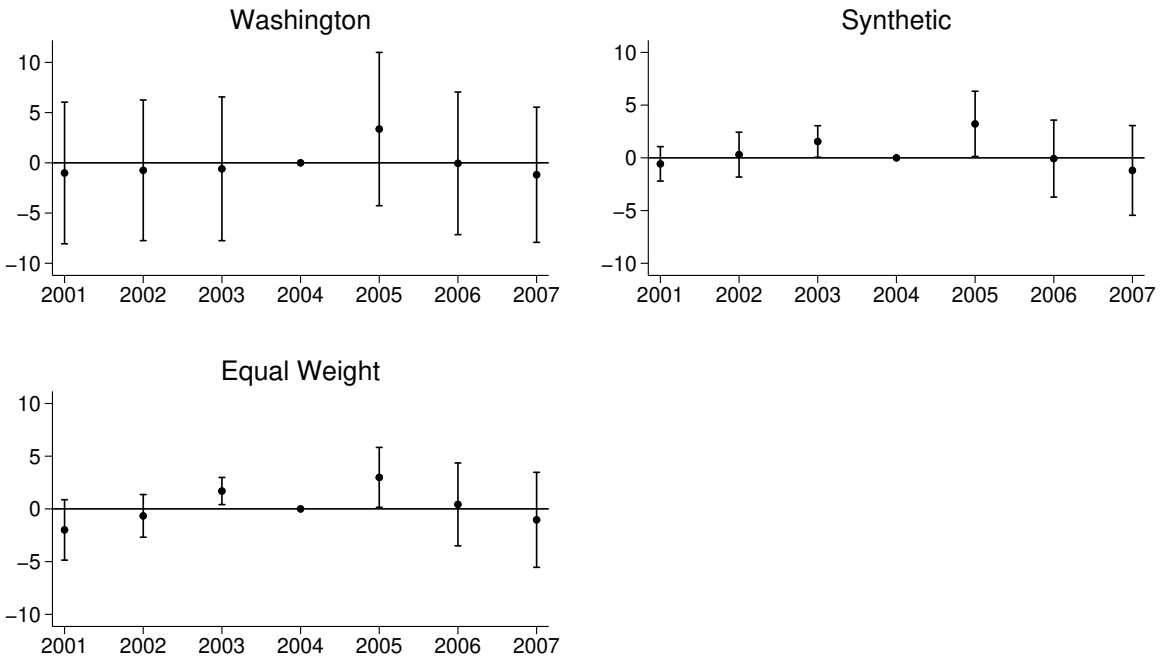
5 How did the implementation of SB 757 affect DI applications in Oregon?

In order to more rigorously analyze the trends in the response variable, I first performed an event study against each control group separately. The event study model was the following:

$$y_{stm} = \alpha + \boldsymbol{\beta_1}(\text{Oregon}_s \times \textbf{year}_t) + \gamma_s + \gamma_t + \gamma_m + \varepsilon_{stm} \tag{ES}$$

In equation (ES), subscripts s, t, and m denote state, year, and month. The treatment state is Oregon. The control group is one of the following: the state of Washington, the synthetic control, or the equal-weight control. y is the number of DI-only applications per 100,000 adults aged 25-64. α is the constant term. Oregon is an indicator for observations of Oregon. **year** is a vector of year

Figure 2: Event Study Plots



indicators with 2004 left out to avoid perfect multicollinearity. The terms γ_s, γ_t, and γ_m are state, year, and month fixed effects. ε is idiosyncratic error.

Figure 2 plots the results of this event study. Specifically, the results were the coefficients of the interaction term (Oregon $\times$ **year**) with their associated 95 percent confidence intervals. When the state of Washington was the control state, no year was statistically significant; however, the positive sign of the point estimate of 3.36 (CI: -4.27–10.99) for 2005 is consistent with my hypothesis. Against the synthetic and equal weight control groups, the point estimates of 3.22 (CI: 0.11–6.33) and 2.99 (CI: 0.13–5.84) were positive and statistically significant at the 5 percent level for 2005. However, the point estimates of 1.55 (CI: 0.05–3.05) and 1.69 (CI: 0.40–2.99) for 2003 against these two control groups were also positive and statistically significant at the 5 percent level. This implied that controlling for time-invariant characteristics of Oregon and the states included in the synthetic and equal weight controls led to a violation of the parallel trends assumption. It follows that the estimate of the treatment effect obtained via difference-in-differences for the synthetic and

Table 4: Difference-in-Differences Estimation Results

	Estimates from DiD 1			*Estimates from DiD 2*		
	WA	Synth.	Eq.Wt.	WA	Synth.	Eq.Wt.
Oregon × 𝟙(year ≥ 2005)	1.30	0.33	1.03	2.59	0.23	0.90
	(1.72)	(1.34)	(1.74)	(2.42)	(1.38)	(1.63)
Unemployment Rate				1.61	−0.09	−1.15
				(5.60)	(0.78)	(1.23)
Female Employment Share				1.69	−0.02	0.64
				(1.64)	(0.45)	(0.61)
Disability Prevalence				0.42	0.15	−0.37
				(1.26)	(0.33)	(0.31)
Mean Income				0.00	0.00	0.00
				(0.00)	(0.00)	(0.00)
N	168	756	756	168	756	756

Response variable: DI only applications per 100,000 adults aged 25-64.
WA: Washington; Synth: Synthetic Control; EqWt: Equal Weight Control.
Levels of significance: *10%, **5%, ***1%.
Robust standard errors in parentheses for WA. Clustered standard errors in parentheses for Synth and EqWt.

equal weight controls would not represent the causal effect of treatment. Rather, the estimates would capture the treatment effect and preexisting differences in trends.

Next, to further examine how DI applications respond to changes in WC policies, I estimated the following difference-in-differences equations:

$$y_{stm} = \alpha + \beta_1\{\text{Oregon}_s \times \mathbb{1}(\text{year} \geq 2005)_t\} + \gamma_s + \gamma_t + \gamma_m + \varepsilon_{stm} \tag{DiD 1}$$

$$y_{stm} = \alpha + \beta_1\{\text{Oregon}_s \times \mathbb{1}(\text{year} \geq 2005)_t\} + \mathbf{X}_{st}\boldsymbol{\beta_2} + \gamma_s + \gamma_t + \gamma_m + \varepsilon_{stm} \tag{DiD 2}$$

Here, $\{\text{Oregon} \times \mathbb{1}(\text{year} \geq 2005)\}$ is an interaction term that indicates observations of Oregon on or after January 2005, i.e., observations treated by the implementation of SB 757. The coefficient β_1 is the difference-in-differences coefficient and was the key coefficient of interest in the analyses. $\mathbf{X}$ is a vector of covariates: unemployment rate, female employment share, disability prevalence, and mean income. The rest of the terms have the same definitions as for the event study in equation (ES).

Table 4 displays the results of estimating equations (DiD 1) and (DiD 2). The main coefficient of

interest was that on the {Oregon$\times\mathbb{1}$(year $\geq$ 2005)} variable. This coefficient indicates the additional number of DI applications per 100,000 adults aged 25-64 as a result of SB 757, assuming that the parallel trends assumption holds. For equation (DiD 1), when Washington was the control, there were an additional 1.30 applications per 100,000. When compared to the synthetic control or the equal weight control, there were an additional 0.33 or 1.03 applications per 100,000. None of these coefficients were statistically significant, however, so I could not rule out zero effect. Controlling for the covariates did not affect whether the coefficient estimates were statistically significant, so again I could not rule out zero effect. But the point estimate for Washington increased in magnitude, whereas the the point estimate for the synthetic and equal weight controls decreased slightly. For equation (DiD 2), when Washington was the control, there were an additional 2.59 applications per 100,000. When compared to the synthetic control or the equal weight control, there were an additional 0.50 or 1.10 applications per 100,000.

A study by the Workers' Compensation Division of the DCBS potentially explains the reasons for these (null) findings (Department of Consumer and Business Services, 2006). That study found that 26 percent of applications for WC benefits under the SB 757 provisions received work disability awards. However, while the average PPD award in its study sample increased, the increase was not statistically significant compared to prior law. In practice, this suggests that the additional OIIs made eligible for work disability did not substantially increase DI applications along the lines I hypothesized.

6 Conclusion

This paper examined the spillover effects from a change in state WC policy to DI application rates. Using a difference-in-differences approach, I exploited the implementation of SB 757 in Oregon, which changed the calculation of PPD benefits. My results showed a treatment effect that was statistically indistinguishable from zero. While this null result ran contrary to my hypothesis that more generous WC benefits would increase DI applications, it was consistent with a state

administrative study finding that the reform did not significantly increase the average PPD award. My findings suggested that policies designed to alter WC generosity might not produce spillovers to DI if their effects are not substantial enough.

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