
A First Step to Helping California Workers Keep Their Jobs: Identifying Likely SSDI Entrants Using State Disability Claims

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This brief discusses whether it is possible to identify the bulk of a state’s likely Social Security Disability Insurance (SSDI) entrants based on disability claims they file before they apply for SSDI. Identifying SSDI entrants at this initial stage increases the chance that “early interventions”—services designed to help workers avoid long-term disability—will succeed. We looked at California’s data on State Disability Insurance (SDI) and Workers’ Compensation (WC) claimants to identify workers who receive benefits for 12 months, putting them at high risk of SSDI entry. The number of such claims from these two programs is close to 80 percent of the number of SSDI awards made to California workers each year. Although we could not see which SDI or WC claimants actually entered SSDI, the diagnostic characteristics of 12-month SDI and WC claimants are similar to those of national SSDI awardees. We also found that we could use the characteristics of SDI and WC claims to predict claims likely to last 12 months, but more information would be needed to effectively target early intervention services to the claimants. As time passes, those who return to work quickly remove themselves as candidates for early intervention, making it easier to identify those likely to enter SSDI. But waiting means possibly missing good opportunities to intervene early. Such opportunities could potentially be preserved by collecting additional information at SDI or WC entry or soon thereafter.

Introduction

Millions of American workers leave their jobs every year, at least temporarily, because of the onset of long-lasting or permanent medical conditions that make it difficult to work (Hollenbeck 2015). Without steady earnings, many of these workers apply for benefits through Social Security Disability Insurance (SSDI). SSDI is a federal program designed to provide income support to workers no longer able to work substantially due to a long-lasting or terminal medical condition. The growth in SSDI awards since the 1980s has surpassed what would be expected based on changes in the demographics of the labor force during this period (Autor and Duggan 2003; Liebman 2015), and as a result, the SSDI Trust Fund will likely be exhausted by 2023 (Old Age, Survivors, and Disability Insurance Trustees 2016). These developments have spurred proposals designed to reduce avoidable transitions from the labor force into SSDI (for example, Autor and Duggan 2010; Burkhauser and Daly 2012; Stapleton et al. 2016; Christian et al. 2016).

State systems that interact with workers early on—that is, before they apply for SSDI—are promising settings for helping them stay in the labor force. The provision of timely, evidence-based help could prevent significant medical conditions from leading to long-term work disability (Ben-Shalom 2016; Social Security Advisory Board 2006; Stapleton et al. 2016). However, a central challenge to the provision of such services is how to quickly and efficiently target workers who are at major risk of leaving the labor force (Stapleton et al. 2015).

California is particularly important for understanding the potential for early intervention in state systems. This is true not only because of the state's size but because, unlike most other states, it has a State Disability Insurance program (SDI), which provides short-term disability insurance to almost all private-sector workers in the state. SDI provides cash benefits to workers with nonoccupational (off-the-job) medical conditions. California workers with job-related conditions receive benefits (both cash and medical) through California's workers' compensation (WC) system.

Together, SDI and WC presumably serve a vast share of California workers who eventually enter SSDI. Hence, SDI and WC claims data can potentially help identify many of these workers early on, while they are still working and can benefit from evidence-based health care and other services to reduce long-term work disability (Bevan 2015).

California's SDI and WC programs

California is one of five U.S. states that mandate short-term disability insurance coverage for off-the-job medical conditions. California, New Jersey, and Rhode Island provide the insurance themselves, whereas Hawaii and New York require employers to provide the insurance. In contrast, WC for occupational (on-the-job) injury or illness is mandated in the District of Columbia and all but one state: Texas.

The two California programs differ in their purpose, administration, and the nature and duration of benefits but still have much in common (Table 1). SDI and WC cover almost identical sets of workers, except for public-sector workers, who are covered under WC but receive short-term disability benefits outside of SDI. Whereas WC is financed by employers, SDI is financed by a payroll tax on employees. WC pays benefits for up to two years, whereas

SDI pays them for no more than one. Both base benefit amounts on prior earnings, but the replacement rate for WC, two-thirds, is higher than for SDI, 55 percent. And unlike WC, SDI does not pay medical benefits.

Although SDI pays benefits for pregnancy leave and family leave, we excluded such claims from our analyses for comparability reasons. Exclusive of these cases, the number of SDI claims each year is about six times larger than the number of WC claims with lost work time in excess of seven days (comparable to the SDI waiting period). SDI data show an average of 366,000 SDI claims per year from 2007 through 2013 compared with an average of 62,000 WC claims from 2007 through 2012.

Table 1. Features of California SDI and WC

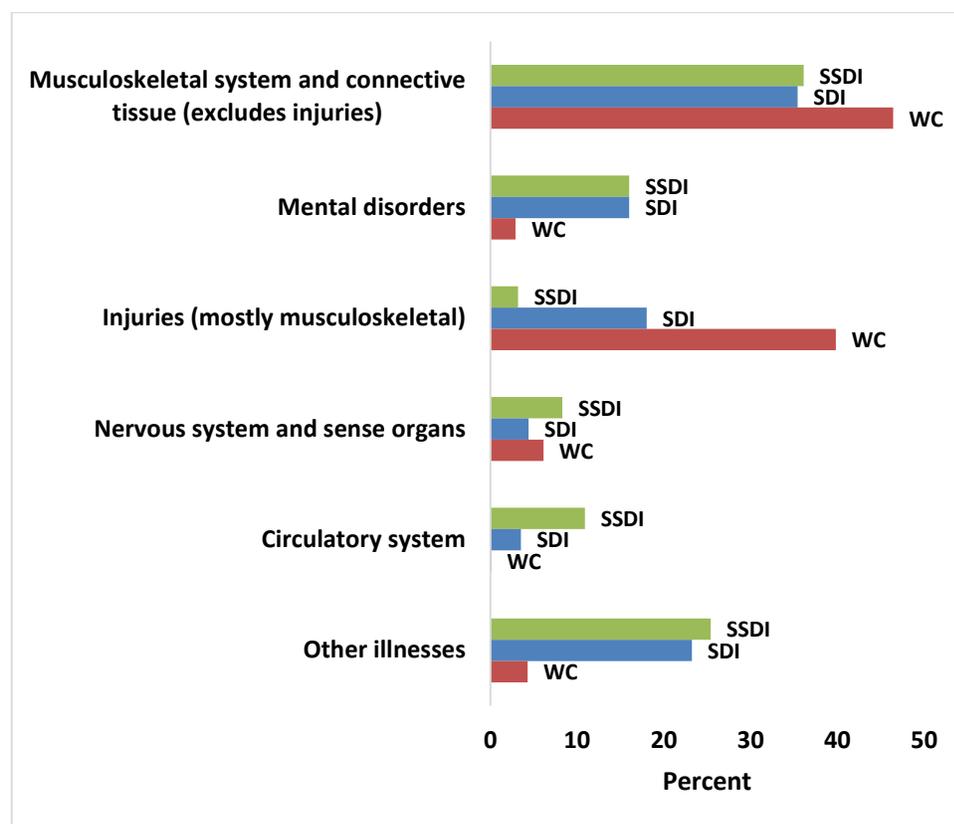
| | SDI | WC |
|------------------------|---|---|
| Purpose | Off-the-job medical conditions | On-the-job injury or illness |
| Coverage | Almost all private-sector employers | All employers |
| Administration | State administered public insurance | Private insurance or employer self-insurance |
| Benefits | Temporary disability (TD) | TD Medical treatment Permanent disability |
| Maximum duration of TD | 52 weeks | 104 weeks |
| TD benefit/weekly wage | 55 percent (capped at \$1,128) | 66.7 percent (capped at \$1,128) |
| Eligibility | At least \$300 in wages in four quarters ending one full quarter before claim | Full benefits from first day of work |

SDI and WC data and comparability

We obtained claims data from California's Employment Development Department (EDD), which administers SDI, and from the state's Department of Industrial Relations (DIR), which administers WC. Both data sets include information about claimants' age, gender, medical diagnosis (ICD-9 codes), address, weekly benefit amount, and duration of benefit payments. To ensure comparability between the SDI and WC claims, we excluded WC claims that closed within one week, SDI maternity claims, and others for more technical reasons. Available information implies that our data capture roughly 85 percent of all off-the-job, short-term disability claims in California; 62 percent of all WC claims; and 81 percent of all claims combined.

Figure 1 shows the distribution of 2007–2013 SDI claims and 2007–2012 WC claims that lasted at least 12 months across the medical diagnosis groupings, compared with the distribution of SSDI awards in 2014. We used 12 months because it is the maximum SDI duration and also the length of time someone must be unable to engage in substantial gainful activity because of a medical condition, which SSA uses as its standard for SSDI eligibility.

Figure 1. Distribution across medical diagnoses of 2007–2013 SDI claims and 2007–2012 WC claims that lasted at least 12 months versus SSDI awards in 2014



Source: Analysis of SDI and WC claims data provided by EDD and DIR, and published SSDI statistics. SDI data are for 2007–2013 (365,918 claims per year). WC data are for 2007–2012 (62,487 claims per year). SSDI statistics are for 2014 (778,796 awards).

Key findings

The number of 12-month SDI and WC claims is close to 80 percent of the number of SSDI awards made to California workers each year.

In our data, 12.5 percent and 18.6 percent of SDI and WC claims, respectively, had a work-loss duration of at least 12 months. Based on these numbers, we estimate that the number of SDI and WC claims for which work-loss benefits lasted at least 12 months is close to 80 percent of the roughly 75,000 SSDI awards made to California workers annually during our study period. Although every 12-month claim does not become an SSDI award, and every SSDI award is not preceded by a 12-month claim, the comparable magnitudes imply that many 12-month claims are followed by SSDI awards, and many SSDI awards are preceded by 12-month claims.

Twelve-month SDI and WC claimants are similar to SSDI entrants in many ways.

SSDI entrants share many characteristics with 12-month SDI and WC claimants—perhaps the most important of which is diagnosis (Figure 1). We found that 35 percent of 12-month SDI claims and 46 percent of 12-month WC claims are for musculoskeletal illnesses, excluding

injuries. Across the two programs combined, musculoskeletal illnesses account for 38 percent of the 12-month claims. That compares with 36 percent of 2014 SSDI awardees with a musculoskeletal disorder as a primary impairment. SDI and WC claims for psychiatric disorders lasting 12 months are much less common, especially in WC. Overall, they account for 13 percent of 12-month claims for the two programs combined, compared with 16 percent of the primary impairments among 2014 SSDI awardees. We also found that, as with SSDI awards, most SDI and WC claimants are older, the split by sex is about 50/50, and pre-claim wages are mostly in the middle or low range (not shown).

Claim characteristics help predict 12-month SDI and WC claims

For the purposes of early intervention, program administrators would like to be able to accurately predict 12-month claims based on information in the claim at its outset. We found that such information does help predict 12-month claims but with less specificity than is generally necessary to target an intervention to those likely to benefit. Table 2 illustrates this point. The first SDI column in the table shows that, out of a 1,000 initial SDI claims, 125 claims can be expected to last for 12 months. However, our ability to identify those claims based just on information in the claims is quite limited. Based on that information alone, we expect to be able to identify only 34 claims with at least a 30 percent chance of lasting 12 months, including just 1 claim with at least 40 percent chance of lasting that long. This means that approximately two thirds of those 34 claims would not last 12 months. If early intervention services are provided to just these 34 claimants, then services will go to approximately 12 claimants who would otherwise have claims that last for 12 months, and to 22 claimants who would otherwise return to work before 12 months; no services would go to the other 113 or so claimants whose claims are destined to last for 12 months. That is clearly an inefficient approach to targeting services. The first WC column shows that the situation is somewhat better for WC claims, but still poor. Of the 186 claims that will ultimately last for 12 months, most will not be among the 127 claims with at least a 30 percent chance of lasting 12 months, and most of the latter will not last 12 months.

Table 2. The likelihood that 1,000 claims will last 12 months

| | SDI | | | WC | | |
|--|-------|---------------------|---------------------|-------|---------------------|---------------------|
| | Total | Open at 3 months | Open at 6 months | Total | Open at 3 months | Open at 6 months |
| Claims lasting 8+ days | 1,000 | 362 | 222 | 1,000 | 483 | 337 |
| Claims lasting at least 12 months | 125 | 125 | 125 | 186 | 186 | 186 |
| Claims with at least a P percent chance of lasting 12 months | | | | | | |
| P = 30% | 34 | 253 | 221 | 127 | 402 | 336 |
| P = 40% | 1 | 108 | 214 | 26 | 193 | 331 |
| P = 50% | -- | 20 | 175 | 1 | 43 | 255 |
| P = 60% | -- | -- | 79 | -- | 1 | 83 |
| P = 70% | -- | -- | 10 | -- | -- | 2 |

Source: Analysis of SDI and WC claims data provided by EDD and DWC.

The second SDI column shows that targeting will be much more accurate if we wait for 3 months, after which all but 362 or so claims will be closed. The prediction problem is reduced to determining which of those 362 claims are the 125 that will ultimately last for 12 months. Even so, only about 20 claims will be identified as having at least a 50 percent chance of lasting 12 months. If services are provided to the 253 claims with at least a 30 percent chance of lasting 12 months, a large share of the 125 cases that would otherwise be destined to last 12 months will receive services, but not all, and services would be provided to many claimants (at least 128 claimants, likely more), who would return to work within 12 months without any services. Waiting until 6 months improves targeting further, because then the prediction problem is reduced to finding the 125 claims that will ultimately last for 12 months from the 222 claims that remain open. If services are provided to the 221 cases with at least a 30 percent chance of lasting 12 months, only a small share of the 125 claims that would otherwise last for 12 months will not be served, and of those claimants served a smaller number would return to work before 12 months without the services. The statistics for WC display a similar pattern. However, helping those who are still out of work at the 6 months mark is likely to be more challenging than helping those who are out of work at the 3 months mark.

Lessons for early intervention

The SDI and WC data indicate that the characteristics of initial claims, after a certain amount of time, can be used to target workers whose claims are likely to last 12 months and who are presumably likely to enter SSDI. An intervention relying on this information alone would be worthwhile from a public policy perspective if it sufficiently reduces lost work time for many service recipients and keeps them off the SSDI rolls. Such an effort is more likely to be worthwhile, however, if other sources of information can be used to target services *before* the claim is three months old or older. Intervening this early could greatly improve the efficacy of the intervention. For example, it may be more likely to promote continued attachment to an employer, in part because the Family and Medical Leave Act requires most employers to retain workers who return to work following medical leave within 12 weeks (approximately three months). Perhaps more importantly, intervention this early can also prevent missteps in treatment, adherence, communication, or other actions that can lead to preventable work disability. A second important consideration is that, in general, the earlier the intervention occurs, the sooner it can help workers return to work.

There are several ways to hone our ability to provide efficient, targeted services that are truly “early.” For example, the predictive capabilities of the data in Table 2 need significant improvement. Certainly, some enhancements could be made through the use of individual-level claims data. In addition, the early administration of psychosocial or other screener questionnaires, designed to predict long-term outcomes, and initial treatment information might greatly improve our ability to predict long durations. Another option for improving service efficiency is to provide the new services in a staged manner: start with minimal services and ramp them up only as evidence indicates that more intensive services are necessary. The three options just described can also be combined, as illustrated by Washington State’s Centers of Occupational Health and Education, which provides coordination and quality improvement services for the state’s WC claimants (see Stapleton and Christian 2016). Together, these options could represent an important first step toward helping California workers keep their jobs after the onset of a disability.

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