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## Improving Access to Data for Disability-Related Research

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# ACRONYMS

ACS	American Community Survey
ADA	Americans with Disabilities Act
AMA	American Medical Association
BLS	U.S. Bureau of Labor Statistics
CES	Center for Economic Studies
CPS	Current Population Survey
CWHS	Continuous Work History Sample
DAF	Disability Analysis File
DDS	Disability Determination Services
DEU	California Disability Evaluation Unit
DOL	Department of Labor
EDD	California Employment Development Department
EDI	Electronic Data Interchange
HIPAA	Health Insurance Portability and Accountability Act of 1996
HRS	Health and Retirement Study
IAIABC	International Association of Industrial Accident Boards and Commissions
ILD	Individual Level Data
LED	Local Employment Dynamics
LEHD	Longitudinal Employer Household Dynamics
MBR	Master Beneficiary Record
MEF	Master Earnings File
NAIC	National Association of Insurance Commissioners
NBS	National Beneficiary Survey
NCCI	National Council on Compensation Insurance
NHIS	National Health Interview Survey
NIOSH	National Institute for Occupational Safety and Health
NLSY	National Longitudinal Survey of Youth
NMWCA	New Mexico Workers' Compensation Administration
NSC	National Safety Council
ODEP	Office of Disability Employment Policy
OSHA	Occupational Safety and Health Administration
PFL	Paid Family Leave
PFML	Paid Family and Medical Leave
PSEO	Post-Secondary Employment Outcomes
PSID	Panel Study of Income Dynamics
QCEW	Quarterly Census of Employment and Wages
RDC	Census Research Data Center
RETAIN	Retaining Employment and Talent After Injury/Illness Network
SAW/RTW	Stay-at-Work/Return-to-Work
SIPP	Survey of Income and Program Participation
SSA	Social Security Administration
SSDI	Social Security Disability Insurance
SSI	Supplemental Security Income
SSN	Social Security Number

SSR	Supplemental Security Record
TDI	Temporary Disability Insurance
UI	Unemployment Insurance
WC	Workers' Compensation
WCIRB	California Workers' Compensation Insurance Rating Bureau
WCRI	Workers' Compensation Research Institute

Additional acronyms are defined in the Tables and Appendix.

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The opinions, conclusions, and any errors in this report are the sole responsibility of the authors and do not reflect the official views of ODEP, the U.S. Department of Labor, the National Academy of Social Insurance, or any of the state agencies or organizations mentioned in this report.

# EXECUTIVE SUMMARY

Each year, millions of workers in the U.S. experience injuries and illnesses either on or off the job that put them at risk of leaving the workforce. When workers leave the labor force because of a work disability, the costs to workers, employers, families, governments, and the economy are significant. Improving the Stay-at-Work/Return-to-Work (SAW/RTW) outcomes of people with work disabilities benefits all stakeholders by helping injured workers return to their job, or find alternative employment, as soon as they are medically able to.

There is a growing body of evidence documenting the effectiveness of various SAW/RTW policies in improving employment outcomes and reducing injury/illness-related costs, however there are many unanswered questions. To improve our understanding of SAW/RTW and identify effective employment policies, it is essential to have access to relevant data to make evidence-based decisions.

This report focuses on improving access to data to facilitate research on SAW/RTW topics from four key social-insurance disability programs that play critical roles in protecting workers against the costs associated with work disabilities: Workers' Compensation (WC), Temporary Disability Insurance (TDI), Paid Family Leave (PFL), and Social Security Disability Insurance (SSDI). We discuss access to two types of data in this report: aggregate-program data and individual-level data (ILD).

To improve access to aggregate-program data, and relevant program characteristics, to facilitate SAW/RTW research, we provide the following:

- Sources for WC, TDI, and PFL program data to serve as a guide for researchers interested in applying for and acquiring administrative data (Section 4)
- Updated and consolidated National Academy of Social Insurance WC program data on benefits, costs, and coverage from 1996-2016 (Section 5)
- Summary of WC legislation and court decisions in all fifty states and the District of Columbia between 2000 and 2016 (Section 5)
- Information on program characteristics for each state TDI and PFL program and data on program benefits, costs, coverage, and claim characteristics in California, New Jersey, and Rhode Island (Section 5)

To improve access to ILD, we assessed the feasibility and process of obtaining administrative data from select WC, TDI, and PFL state agencies in Section 6.1. We contacted 25 state agencies administering WC, TDI, and PFL programs and 4 WC rating bureaus to identify the feasibility and process of acquiring administrative ILD for research purposes.<sup>1</sup> If the agency or organization

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<sup>1</sup> The 29 state agencies and organizations we reached out to were those that reliably provide aggregate WC program data for the Academy's annual report. Thirty-five states and the District of Columbia have designated the National Council on Compensation Insurance (NCCI) as their official Rating Bureau and many of these do not have

responded that they share ILD under certain circumstances, we followed up with additional questions to learn:

- The process for applying for and acquiring the data;
- Whether it is possible to use personally identifiable information such as a Social Security Number (SSN) to link to administrative data from other sources; and
- The data elements available.

Additionally, we conducted a literature review to identify studies that used administrative ILD on WC, TDI, or PFL claimants from agencies and organizations that we were not able to verify the feasibility of obtaining data by speaking with a representative.

We identified the feasibility of obtaining administrative ILD from 20 of the 29 state agencies and organizations by communicating directly with an agency representative (14), through a literature review that identified additional agencies that have provided data for previous studies (5), and one (1) agency that provides de-identified administrative data on a website. Of the 14 agencies and organizations that we communicated directly with a representative, 9 confirmed that it was feasible to obtain administrative ILD for research purposes under certain circumstances and 5 indicated that it is possible to obtain identifiable data in order to link to administrative data from another source, though each noted that it was extremely rare.

To address the challenges faced by researchers in acquiring administrative ILD, we evaluated three options to improve access to administrative ILD for WC, TDI, and PFL programs in Section 6.2:

1. Partner with one or more state agencies to develop a shared database or a “fast-track” process to gain access to administrative ILD
2. Develop a “blueprint” for researchers that outlines the feasibility and process of obtaining administrative ILD
3. Partner with the Longitudinal Employer-Household Dynamics program

Each option was evaluated using the following criteria: data quality, access, privacy, cost, timeline, and feasibility.

The most promising option in the short term is to develop a “blue-print” for researchers to gain access to administrative ILD. Collecting and consolidating information on the feasibility and process for obtaining administrative ILD from state agencies could benefit researchers by lowering their data acquisition costs. This option could be implemented in less than one year, depending on the responsiveness of state agencies in providing information. The cost is lower than developing a partnership with state agencies to create a shared database or a “fast-track”

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data collection capabilities to provide administrative ILD for research purposes. We also reached out to state agencies that administer TDI & PFL programs in the states where they operate. For more details, see Sections 3.2 and 6.1.

application process. The feasibility is high – there are no barriers to completing this work and this report lays the groundwork for a more comprehensive review of state agency feasibility and data acquisition requirements.

In the medium to long term (2+ years), a promising option is to pursue a partnership with the LEHD. The LEHD is a rich source of linked administrative data that contains relevant information on worker and employer characteristics. This option overcomes many of the shortcomings of pursuing partnerships with specific state agencies and leverages the expertise and data infrastructures already in place. While this option is feasible, there are a number of challenges. The LEHD would have to agree to pursue a pilot program to collect disability-related administrative data and state agencies that house WC and PFML administrative claims data would also have to participate. A coordinated effort by the Department of Labor and other agencies to pursue this partnership, perhaps with funding or other resources, may improve the feasibility. The feasibility of these state agencies collaborating with LEHD is higher than partnering to create a new, shared database because of the Census' stringent standards for data security and quality and many of the same agencies that house WC and PFML administrative data already provide UI wage data to the Census.

The data and information contained in this report provide a useful starting point for improving access to aggregate- and individual-level data on social-insurance disability programs. Both the aggregate data provided in this report and the information for acquiring administrative ILD are most useful if they are made available to the public in an easily accessible format. As a next step, a disability data website that provides program information, data, resources to identify key legislative changes, and a blue-print for researchers interested in obtaining ILD would lower the search costs of acquiring data to conduct research on SAW/RTW topics and serve as a valuable resource for people interested in learning more about social-insurance disability programs. One website design option would be to provide information in four categories: 1) General program characteristics and policy information; 2) Downloadable WC, TDI, and PFL program data; 3) "Blue-Print" for researchers to acquire ILD on disability-related topics; and 4) Additional resources.

# 1. INTRODUCTION

Twenty-four million workers in the United States experienced a medically consulted injury or illness either on or off the job in 2017 (NSC 2019).<sup>2</sup> While a large portion of these workers will fully recover and stay-at or return-to-work, many will be at risk of leaving the workforce.<sup>3</sup> When workers leave the labor force because of a work disability, the costs to workers, employers, families, governments, and the economy are significant.<sup>4</sup> The National Safety Council estimates that off-the-job injuries to workers cost society \$441.7 billion and on-the-job injuries cost society \$161.5 billion in 2017 (NSC 2019).<sup>5</sup>

Improving the Stay-at-Work/Return-to-Work (SAW/RTW) outcomes of people with work disabilities benefits all stakeholders by helping injured workers return to their job, or find alternative employment, as soon as they are medically able to. There is a growing body of evidence documenting the effectiveness of various SAW/RTW policies in improving employment outcomes and reducing injury/illness-related costs.

A series of papers evaluating the Centers for Occupational Health and Education (COHE) in Washington state's Workers' Compensation (WC) system found that providing physician education on occupational health best practices and financial incentives to adopt them, along with early-intervention service coordination among healthcare providers, employers, and workers reduces lost-work days, lowers medical costs, and decreases applications to SSDI (Wickizer et al. 2018; Franklin et al. 2015; Wickizer et al. 2011). Further evidence suggests that SAW/RTW programs yield societal benefits (Bardos et al. 2015) and reduce work-injury absences (McLaren et al. 2017).

Based in part on the promising findings from Washington's COHE program, the US Department of Labor's Office of Disability Employment Policy (ODEP) funded SAW/RTW research and policy collaboratives that led to the Retaining Talent After Injury/Illness (RETAIN) Demonstration grants. These grants, which are managed by ODEP in partnership with DOL's Employment and Training Administration and the Social Security Administration, are testing the impact of early intervention SAW/RTW strategies.<sup>6</sup>

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<sup>2</sup> The NSC estimates 24.1 million on-and off-the-job injuries occurred among workers in the United States in 2017. Twelve million occurred off-the-job at home, 5.2 million occurred off-the-job in public, 4.5 million occurred on-the-job, and 2.4 million were off-the-job as a result of a motor vehicle accident.

<sup>3</sup> Historically, about three-fourths of Workers' Compensation claimants return to work before the end of the state-specific waiting period for indemnity (cash) benefits that varies between 3-7 days across states (NCCI 2018).

<sup>4</sup> A work disability is defined as any illness, injury, or medical condition that inhibits someone's ability to work. Work disability has also been defined within the Workers' Compensation field as an actual wage loss or the loss of future earning capacity as a result of an impairment (Spieler and Burton 2012).

<sup>5</sup> The National Safety Council cost estimates consists of wage and productivity losses, medical expenses, employer costs, administrative expenses, employers' uninsured costs, damage to motor vehicles in work-related injuries, and fire losses.

<sup>6</sup> For more information on ODEP's SAW/RTW research and RETAIN, please go to ODEP's website: <https://www.dol.gov/odep/topics/Stay-at-Work-Return-to-Work.htm>

While the RETAIN grants are expected to answer a number of questions about the impact of SAW/RTW strategies on the outcomes of people with work disabilities, there are still many unknowns as to which interventions are the most effective, the optimal timing of interventions, and the population for whom these strategies should be targeted to. A recent synthesis of evidence on SAW/RTW and related programs highlights several open questions for further study (Nichols et al. 2018). Further, much of the SAW/RTW evidence base focuses on WC beneficiaries – people with a work-related injury or illness – however, workers experience roughly 5 times as many injuries and illnesses off the job as they do on the job (NSC 2019).

To improve our understanding of SAW/RTW and identify effective employment policies, it is essential to have access to high-quality data. There are a number of potential “touch-points” to identify people with work disabilities most at risk of dropping out of the labor force (Nichols et al. 2018a), however they are fragmented and researchers may be dissuaded by the high costs of searching for and acquiring relevant data.

This report focuses on improving access to data from four key social-insurance disability programs that play critical roles in protecting workers against the costs associated with work disabilities, as well as the costs associated with having to care for a family member with disabilities or medical needs, to facilitate research on SAW/RTW topics: Workers’ Compensation (WC), Temporary Disability Insurance (TDI), Paid Family Leave (PFL), and Social Security Disability Insurance (SSDI).<sup>7,8</sup>

We discuss access to two types of data in this report: aggregate-program data and individual-level data (ILD). To improve access to aggregate-program data and relevant program characteristics to facilitate SAW/RTW research, we provide the following:

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<sup>7</sup> The defining features of social-insurance programs are the mandatory contributions and near-universal coverage. People must meet minimum work-requirement and contribution standards to receive benefits for a “covered” event, such as a work-related disability. Eligible individuals can receive benefits in the event of a covered event, regardless of their other sources of income or assets.

Additional programs, such as the federal Supplemental Security Income (SSI) program and the federal-state Medicaid system, also provide compensation and benefits to people with disabilities and their families. There are important interactions between the programs discussed in this report and SSI and Medicaid. However, SSI and Medicaid are not considered social-insurance programs because they are means-tested programs and eligibility does not depend on prior work experience. While outside the scope of this report, these programs serve a crucial role in supporting the economic security of people with disabilities.

Unemployment Insurance is another social-insurance program that provides benefits to workers who become unemployed through no fault of their own, and meet certain other eligibility requirements. While this program may be utilized by people with work disabilities who have lost their job, we do not include a discussion of UI program data because it does not specifically serve people with work disabilities.

<sup>8</sup> Each state has a WC program and five states have longstanding TDI programs (California, Hawaii, New Jersey, New York, and Rhode Island). Of the five states with TDI programs, California, New Jersey, New York, and Rhode Island have added PFL programs. Massachusetts, Washington DC, and Washington State have enacted Paid Family Medical Leave (PFML) programs that incorporate TDI and PFL, however these programs had not started paying benefits as of the time of this report.

- Sources for WC, TDI, and PFL program data to serve as a guide for researchers interested in applying for and acquiring administrative data
- Updated and consolidated National Academy of Social Insurance WC program data on benefits, costs, and coverage from 1996-2016
- Summary of WC legislation and court decisions in all fifty states and the District of Columbia between 2000 and 2016
- Information on program characteristics for each state TDI and PFL program and data on program benefits, costs, coverage, and claim characteristics in California, New Jersey, and Rhode Island.

To improve access to administrative ILD, we contacted 25 state agencies administering WC, TDI, and PFL programs and 4 WC rating bureaus to identify if the agency (or organization) shares administrative ILD for research purposes. We identified other agencies and organizations that have provided WC, TDI, and PFL administrative ILD for previous studies through a review of the literature. Additionally, we evaluated three options to improve access to administrative ILD for WC, TDI, and PFL programs:

1. Partner with one or more state agencies to develop a shared database or a “fast-track” process to again access to administrative ILD
2. Develop a “blueprint” for researchers that outlines the feasibility and process of obtaining administrative ILD
3. Partner with an ongoing survey to collect more disability data

This report is organized as follows. Section 2 provides a brief overview of aggregate-level program data and ILD and describes administrative and public use ILD for studying SAW/RTW topics. Section 3 describes the approaches we used in this project. Section 4 provides an overview of the social-insurance disability programs addressed herein, as well as information on administrative data sources for each program. Section 5 presents the aggregate-level program data collected and organized for this project. Section 6 addresses options to improve access to ILD by summarizing the feasibility and process for obtaining administrative ILD from select WC, TDI, and PFL programs, and evaluating three options to improve access to ILD. Section 7 concludes.

## 2. OVERVIEW OF DATA TYPES

### 2.1 Aggregate and Individual-Level Data

We discuss access to two types of social-insurance program data in this report: aggregate program data and individual-level data. The general difference between these two types is the unit of observation.

Aggregate program data on benefits, costs, coverage, and utilization are an important starting point to assess the implications of policies on program outcomes and identify areas that may require further analysis. For instance, policymakers may be interested in the impact of a policy change that enhances medical care coordination among service providers on total program medical care spending and average SAW/RTW employment outcomes. Data on program characteristics and benefit provisions are also essential to provide context for SAW/RTW research because each of these programs provides workers with different incentives that impacts their decision of when and if to SAW/RTW, given their ability to work and the employment options available. However, aggregate program data do not allow researchers to control for potentially confounding factors at the individual-level such as age, disability type and severity, occupation, and income when analyzing the impact of program policies on employment and health outcomes.

Aggregate program data on WC, TDI, and PFL across states are often not available from a single source, nor is it readily available in formats that are easily accessible for researchers. Some state TDI and PFL programs report information, but these data are fragmented among the various state agencies and are often are not available for all years. Aggregate data on the SSDI program are easier to obtain because the program is administered by a single agency, the Social Security Administration, at the federal level.

ILD offer a number of advantages compared to aggregate program data for researchers studying SAW/RTW policies that focus on WC, TDI, PFL, and SSDI beneficiaries. The primary benefit of ILD is that it (ideally) contains rich information on each person. This helps researchers control for potentially confounding factors such as those described above at the individual-level which, if unaccounted for, may lead to biased results that do not accurately assess the causal impact of a particular policy or program. The stronger the causal link between, for example, employer accommodations for disabled workers and improved employment outcomes, the more confidence policymakers can have in implementing that policy.

ILD with information on a wide variety of factors also provides researchers more opportunities to identify populations that are “at risk” and better targeted by government policies and programs. For instance, using ILD with information on workers’ socio-economic characteristics allows researchers to identify those who are less able to maintain labor force attachment after an injury, disability, or incidence of family caregiving. In addition to identifying at-risk

populations, ILD allow researchers to better identify the effectiveness of government policies and programs on specific groups of individuals.

Researchers interested in studying SAW/RTW topics among social-insurance disability program beneficiaries essentially have three options to obtain ILD: 1) gain access to administrative level claims data from a state agency, rating bureau, private insurer, third party claims administrator, or employer(s), 2) rely on public use survey data, or 3) collect primary ILD. Section 2.2 describes the pros and cons of using administrative and public use survey ILD for studying SAW/RTW topics. We do not address primary data collection because this is prohibitively expensive in many cases, unless part of a large research project.<sup>9</sup> While we provide a review of public use surveys used in disability-related research below in Section 2.2, the remainder of this report focuses on improving access to administrative ILD.

## 2.2 Administrative and Public Use Survey Data

### Administrative Data

Administrative data may offer advantages over survey data when studying SAW/RTW topics. Card et al. (2010) argue strongly in favor of expanding access to administrative data more generally. They report the following benefits of administrative data:

- Administrative data offer much larger sample sizes. As an example, the full population earnings data from SSA or tax records is about 2,000 times larger than that from the Current Population Survey.
- The inherent longitudinal structure of administrative data enables researchers to follow individuals over time and address many critical policy questions.
- Administrative data provides higher-quality information than is typically available from survey sources, which suffer from high and rising rates of non-response, attrition, and under-reporting.

Better utilizing administrative WC data, within and across states and linked to other sources, holds great promise for research and surveillance purposes to improve our understanding of work disability and in identifying and analyzing policies aimed at reducing the associated costs. In 2012, the National Institute for Occupational Safety and Health (NIOSH), the Occupational Safety and Health Administration (OSHA), and the Bureau of Labor Statistics (BLS) hosted a workshop on the use of WC data for occupational safety and health. The proceedings from the workshop provide a thorough overview of research papers using WC data that outline opportunities to better utilize this type of data in future work (NIOSH 2013).<sup>10</sup>

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<sup>9</sup> Primary data collection is also often not longitudinal and it is essential to track the employment outcomes of people with work disabilities over time.

<sup>10</sup> While this report focuses on accessing data to study SAW/RTW outcomes, WC claims data may also be useful for identifying high-risk industries and developing prevention strategies (e.g. Wurzelbacher et al. 2016).

Administrative ILD on WC and TDI claimants that offer larger samples sizes and a longitudinal design are especially important for researchers studying SAW/RTW outcomes. Injuries and illnesses are complex and rare events (Reville et al. 2001). Individuals may enroll in one or more disability program across time and experience many potential instances of work spells and absences during the return to work process (Butler et al. 1995; Baldwin et al. 1996). Additionally, the larger sample sizes in administrative databases overcome the shortcomings of many publicly available public surveys which often do not have enough numbers of individuals with a work disability, or WC, TDI, or PFL claimants, to perform sub-group analyses with sufficient statistical power.<sup>11</sup>

Expanding access to administrative data offers a number of potential benefits to researchers, but there are drawbacks. The quality of administrative datasets of WC, TDI, and PFL claims vary across state agencies and generally include limited information on employment or health outcomes, subsequent enrollment in a separate disability program, and demographic information. Many high quality studies examining social-insurance disability program beneficiaries link administrative data from multiple sources to overcome these limitations. Perhaps the most innovative use of administrative data in this research area are the studies evaluating the wage loss of individuals who suffered a work-related injury and the benefit adequacy of WC wage-replacement benefits (e.g., Boden and Galizzi 1999; Reville et al. 2001a; Seabury et al. 2011; Seabury et al. 2014; Dworsky et al. 2016; Savych and Hunt 2017). These studies linked administrative WC claims data to administrative wage data to track the long-term employment and wage outcomes of injured workers compared to an uninjured control group. Linked administrative data have also been used to investigate the impact of a work-related injury on the probability of receiving SSDI benefits later in life (O’Leary et al. 2012).

Linking administrative disability program data to earnings data holds great promise for examining SAW/RTW outcomes, however these data do not capture the full extent of work disability. First, workers experience more injuries and illnesses that may inhibit their ability to work while off the job and thus they would not qualify for WC benefits (NSC 2019). Workers

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<sup>11</sup> Reville et al. (2001) calculate that in 1996 an individual household had an injury propensity for lost-time workplace injuries of about 0.03 assuming no more than one lost-time injury or illness per household. To collect a sample of 300 workers with a lost-time workplace injury in a given year, a survey would need to contact 10,000 households. Using more recent data, in 2017 the U.S. Census reported 126 million households (US Census 2018) and the U.S. Bureau of Labor Statistics reported 1.8 million nonfatal occupational injuries and illnesses with days away from work, job restriction, or transfer (US BLS 2017). This translates to roughly a 0.015 injury propensity, assuming no more than one workplace injury per household, and would require a sample size of about 20,500 to include 300 workers with a workplace injury or illness. Expanding this target sample to include those with a non-work-related injury or illness reduces the sample size required to collect a sample of 300 people with a work disability (from a work-related or non-work-related injury/illness). The National Safety Council estimated there were 19.6 million medically consulted injuries and illnesses among the working population that occurred off the job in 2017 (NSC, 2019). This would translate to an injury propensity per household of 0.155, however an assumption of only one injury or illness per household may not hold and it is not clear how many of the 19.6 million medically consulted injuries and illnesses sustained by the working population resulted in days away from work.

with off-the-job injuries or illnesses may qualify for TDI benefits in the five states with currently operating TDI programs (California, Hawaii, New Jersey, New York, and Rhode Island). Second, several studies have found that a large portion of workers with work-related injuries and illnesses do not receive WC benefits. Spieler and Burton (2012) summarize this literature and outline a number of reasons why workers with work-related disabilities do not always receive WC benefits: a growing number of exclusions in WC programs based on employer or worker status; many workers who might be eligible for benefits do not file claims; and barriers to the award of benefits in claims that are filed including proof of causation, proving impairment or disability, and procedural hurdles.

Another shortcoming of administrative ILD on WC, TDI, and PFL claimants is that the programs, and the related data, are state-based. This limits many researchers to study the outcomes of individuals on a state-by-state basis which reduces the generalizability of the findings, unless efforts are made to acquire data from multiple states.

Researchers face a number of barriers to acquiring WC, TDI, and PFL administrative ILD because it contains sensitive information on individuals and it is essential to protect privacy. The Health Insurance Portability and Accountability Act of 1996 (HIPAA) includes data privacy and security provisions for protecting medical information while still allowing data to be shared under controlled conditions. Organizations and government agencies have adopted conservative stances towards data-sharing and some state agencies have adopted statutory limitations on data-sharing, which either require specific departmental approval or explicitly forbid any sharing. In some instances, researchers may acquire partial access to data that allows them to write computer programs to analyze it, but they are not able to access the actual data itself. Linking administrative data from multiple agencies presents an additional set of access, accuracy, and technical difficulties.

Finally, there is no clear guide for researchers interested in acquiring administrative data on WC, TDI, and PFL claimants. It is possible to review the literature to identify state agencies and organizations that have provided administrative ILD for previous studies, but the process for acquiring the data is not clear, nor is it clear which agencies or organizations will provide data for research purposes and under which circumstances.

## **Public Use Survey Data**

Compared to administrative data, the information available in many public use surveys contains rich information on individual characteristics. In many instances, samples are nationally representative. However, as mentioned above, surveys may suffer from non-response, attrition, and underreporting. Surveys do not always have a longitudinal design that tracks the same individuals over time, making it difficult to study SAW/RTW employment outcomes. Finally, the number of individuals with a disability and those claiming social-insurance program benefits in many nationally representative surveys are often not large enough to perform subgroup analyses with sufficient statistical power. This limits the effectiveness for conducting

research on the SAW/RTW outcomes of social-insurance disability program beneficiaries, even if relevant information on disability is included. For these reasons, and others, there have been numerous calls for expanding the scope of disability survey data.<sup>12</sup>

Livermore et al. (2011) provides a comprehensive overview of disability data in national surveys. The authors reviewed 40 surveys that were federally sponsored, national in scope, and fielded in 2000 or later – or, if fielded before 2000, contained “significant disability-related content or other information of particular relevance to individuals with disabilities.” Table 6 lists the surveys covered in Livermore et al. (2011). Reville et al. (2001) reviews data sources and methods for estimating the economic consequences of work-related injuries and illnesses. The authors highlight surveys with information on work-related disabilities. They conclude that longitudinal survey databases such as the National Longitudinal Survey of Youth (NLSY) and the Health and Retirement Study (HRS) are especially promising sources of data to study the economic consequences of work-related injuries and illnesses.

A number of academic studies have made use of publicly available ILD to study the outcomes of WC, and PFL beneficiaries from public use surveys such as the Survey of Income and Program Participation (SIPP) (e.g., Bronchetti 2012; Dillender 2015; Byker 2016), the Current Population Survey (CPS) (e.g., Krueger 1990; Bronchetti and McInerney 2012; Rossin Slater et al. 2013), the NLSY (e.g., Lakdawalla et al. 2007; Galizzi 2013; Baum and Ruhm 2013), the HRS (e.g., Reville and Schoeni 2004); the American Community Survey (ACS) (e.g., Armour et al. 2016), and the National Health Interview Survey (NHIS) (e.g., Dillender 2015).

A key source of publicly available individual-level survey data on SSDI beneficiaries is the National Beneficiary Survey (NBS). The NBS collects data from a nationally-representative sample of working-age SSDI and SSI beneficiaries. The Kessler Foundation National Employment & Disability Survey is another potential source of information that examines the workplace experiences of people with disabilities. Anand and Sevak (2017) used this survey to assess the role of workplace accommodations in the employment of people with disabilities.

Linking administrative disability data to public use databases such as the Census or CPS also hold great promise and, in addition to adding a wealth of covariates to administrative data, may mitigate survey underreporting or misclassification of participation in disability related programs.<sup>13</sup>

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<sup>12</sup> Livermore et al. (2011a) discuss the benefits and feasibility of developing a National Disability Survey.

<sup>13</sup> Meyer and Mittag (2019) use CPS survey data linked to New York State Office of Temporary and Disability Assistance and Department of Housing and Urban Development administrative data to investigate the accuracy of reported benefits in the CPS from four income transfer programs (Supplemental Nutrition Assistance Program, Temporary Assistance for Needy Families, General Assistance, and subsidize housing) and find evidence of severe underreporting in the CPS.

### **3. APPROACHES TO IMPROVING ACCESS TO DISABILITY-RELATED DATA**

This section describes the approaches we used in this project to improve access to aggregate and individual-level data.

#### **3.1 Improving Access to Aggregate-Level Program Data**

##### **Identified Sources for Administrative Data**

While the SSDI program is federally administered by the Social Security Administration who houses all related data, WC, TDI, and PFL programs are state-based and administered by different agencies. We identified the relevant agencies that administer these state programs and house relevant data in Tables 2 and 3, with a description in Section 4.

##### **Updated and Consolidated National Academy of Social Insurance Workers' Compensation Data: 1996-2016**

The Academy produces an annual report: *Workers' Compensation: Benefits, Coverage, and Costs*, that provides the only comprehensive data on WC benefits, costs, and coverage for the nation, each state, the District of Columbia, and federal programs. These data are important for researchers interested in evaluating WC programs and identifying program trends.<sup>14</sup> In each report, the Academy provides new annual estimates of WC benefits, coverage, and costs for the most current year available and updates for the previous four years. For instance, in the most recent published report, McLaren, Baldwin, and Boden (2018) present new data for 2016 with updated data from 2012-2015. However, there has not been an effort to update the all data elements (benefits, costs, coverage) across the entire time period from 1996 to the present.<sup>15</sup>

There are three primary reasons why Academy data may need to be updated, based on internal and external factors: 1) improvements in state agency data, 2) better data sources are identified, and 3) updates in estimation techniques.

*Improvements in state agency data:* WC data are often more complete over time as state agencies obtain more information on payments from employers and insurers. This is partly

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<sup>14</sup> WC programs are often evaluated based on the adequacy and equity of wage-replacement benefits, affordability, and efficiency. Efficiency is used to evaluate the benefit delivery system and the effectiveness of benefit provisions in incentivizing prevention and rehabilitation. See Burton (2005) and Berkowitz and Burton (1987) for more information.

<sup>15</sup> Detailed information is available for each state going back to 1996. National totals dating back to 1940 were previously published in SSA's Annual Statistical Supplement, Table 9b. The 2017 Supplement is the most recent that includes historical WC data: <https://www.ssa.gov/policy/docs/statcomps/supplement/2017/9b.html>.

because states rely on employers and insurers to report data on benefits paid, and sometimes those actors do not follow the requirements or are late in filing, or the state agencies are late in recording the data. State agencies also improve data reporting methods by adopting new claim management software or enhancing their internal data management and analysis capabilities. In these instances, there may be differences in data reported before and after the adoption of the new software, so it is essential to update historical data to ensure it is consistent across time using the most reliable data available.

*Better data sources are identified:* The Academy relies on data from a variety of sources to estimate WC benefits, costs, and coverage. State agencies are a key source of data, but there are often multiple data sources within each state, depending on the type of payer (e.g., private insurance, self-insured employer, state fund). Additionally, it is often challenging to find the appropriate person to provide data in many state agencies. When a new contact in a state agency is identified and able to provide the requested data, it is necessary to update previous estimates to incorporate the new data.

*Updates in estimation techniques:* A number of estimation techniques are used to impute missing data. Self-insured benefits and payments made through deductible payments are the two data elements that are most commonly estimated. In both cases, Academy methods for each approach depend on the data available to develop the estimate.<sup>16</sup> For instance, self-insured benefit payments are estimated using different approaches depending on whether a state's self-insured payroll is available or not, and whether any historical information on self-insurance benefit payments are available for that particular state. As data is updated, it is necessary to update the estimation approach to the one that provides the most reliable estimate. These updates are generally done in five year time periods; however, it is important that the historical data be updated to ensure that consistent estimation approaches were used in each state across time.

We consolidated and updated the Academy's WC data by identifying the most current estimates for each year (1996-2016) and reviewing the data for anomalies. We contacted state agency representatives in cases where data was either missing from previous years or there were unexplained differences in some of the reported data. We also underwent an effort to update the estimation techniques used to impute missing data so the methods were the most up to date and consistent across time. After updating the Academy's WC data, we consolidated the data tables into a time-series format for the years 1996-2016. These data are described in Section 5.1 and reported in Tables A1-A6.

## **Workers' Compensation Legislative Changes: 2000-2016**

In order to interpret WC data on benefits, costs, and coverage, and to identify policy changes that may influence SAW/RTW incentives, it is useful to understand the legal contexts within

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<sup>16</sup> For a full description of the methods used in *Workers' Compensation: Benefits, Coverage, and Costs*, please see the Sources and Methods section (McLaren, Baldwin, and Boden 2018).

which the state systems operate and to identify specific legislative changes and when they were enacted into law. This information is of particular use to researchers interested in exploiting state variation in the adoption and timing of WC legislation to investigate impacts on the outcomes of injured workers and WC program benefits and costs. Similar information has been used to investigate the impact of WC legislation changes on SSDI program outcomes (e.g., Guo and Burton 2012; McInerney and Simon 2012).

Some resources track WC legislative changes over time, but their structures limit their usefulness without further refinement. For example, the National Council on Compensation Insurance's (NCCI's) *Annual Statistical Bulletin* includes statutory explanations for some approved changes in state WC rates. But not all legislative changes are noted, and not all approved insurance rate changes are associated with legislative changes. A state may, for example, have an increase in insurance rates because the underwriting experience has deteriorated, even though the state statute has not been amended.

We conducted a legal policy review that summarizes legislation and court decisions affecting WC in all fifty states and the District of Columbia between 2000 and 2016. We used information from NCCI's *Annual Statistical Bulletin* (NCCI 2017), ProPublica's review of "Workers' Compensation Reforms by State" (Qui and Grabell 2015), and state legislation documents to complete our summary. We included legislative changes that were estimated by NCCI to produce at least a 0.5 percent increase or decrease in WC insurance rates.<sup>17</sup> Because we used a variety of sources, not all legislative changes noted were associated with an estimated rate change by NCCI. Section 5.2 and Table 4 report the results.

## **Temporary Disability Insurance and Paid Family Leave Program Characteristics and Data**

We collected information on program characteristics for each state TDI (California, Hawaii, New Jersey, New York, and Rhode Island) and PFL (all TDI states except Hawaii) program that includes the types of insurance coverage available, eligibility for claiming benefits, types of insured events, employer and employee contribution rates, specific benefit provisions, and coverage of self-employed workers. Information on state TDI and PFL program characteristics is based on information from the Academy's report, *Paid Family and Medical Leave Programs: State Pathways and Design Options* (Glynn et al. 2017), as well as the websites of the respective state agencies administering these programs. These program characteristics are described in Section 5.3 and in Tables 5 and 6.

Additionally, we collected data on TDI and PFL program benefits, costs, coverage, and claim characteristics in California, New Jersey, and Rhode Island. These tables are designed to provide

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<sup>17</sup> There are numerous WC legislative changes that were estimated to produce less than a 0.5 percent (in absolute value) impact on WC insurance rates – most of these are minor changes to medical fee schedules. We chose to exclude these WC legislative changes to complete the review that we believed to be most valuable to researchers within the project timeframe and budget.

researchers with essential program information to facilitate analyses and for comparative purposes. The data for the PFL and TDI systems in all three states come from the respective state agencies with oversight of the programs. In order to extend data for the NJ TDI program into earlier years, we collected data on trust fund operations from the NJ state Department of the Treasury for fiscal years 2007 and 2008. While the Treasury Department is not involved in the administration of the program and does not have detailed information on claims and coverage, it does have oversight over the state TDI trust fund.<sup>18</sup> These results are reported in Section 5.3 and in Tables A7-A9.

## 3.2 Improving Access to Individual-Level Data

### Feasibility and Process for Obtaining WC, TDI, and PFL Administrative Individual-Level Data

WC, TDI, and PFL programs are state-based and relevant data are collected and stored by different agencies and organizations across the country. It is often not clear which state agencies provide administrative ILD for research, what the process is for applying for data, or what the conditions are for acquiring the data.

To identify the current process for acquiring administrative ILD for research purposes and to evaluate the feasibility of data-sharing agreements, we contacted 25 state agencies administering WC, TDI, and PFL programs and 4 WC rating bureaus.<sup>19</sup> If the agency or organization responded that they do share ILD under certain circumstances, we followed up with additional questions to identify:

- The process for applying for and acquiring the data;<sup>20</sup>
- Whether it is possible to use personally identifiable information such as a Social Security Number (SSN) to link to administrative data from other sources; and
- The data elements available.

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<sup>18</sup> Data on the TDI programs in Hawaii and New York were not publicly available. Data on the operations of the PFML programs in the District of Columbia and Washington State were not available because those programs will not begin paying benefits until 2020. Data for New York's PFL program was not available because the program was enacted in 2016 but did not start paying benefits until 2018.

<sup>19</sup> The 29 state agencies and organizations we reached out to were those that reliably provide aggregate WC program data for the Academy's annual report. Thirty-five states and the District of Columbia have designated NCCI as their official Rating Bureau and many of these do not have data collection capabilities to provide administrative ILD for research purposes. We also reached out to state agencies that administer TDI and PFL programs in the states where they operate. Section 6.1 lists the agencies and organizations that we reached out to.

<sup>20</sup> We asked representatives whether there was a formal claims data request procedure in place and, if so, what the requirements are for applying to gain access to data. Additionally, we asked representatives if there are any limitations on the types of research questions that researchers may address and if there is a cost (monetary or time) for providing the requested data.

Additionally, we conducted a literature review to identify studies that used administrative ILD on WC, TDI, or PFL claimants from agencies and organizations that we were not able to verify the feasibility of obtaining data by speaking with a representative. The results are described in Section 6.1.

## **Options to Improve Access to Administrative Individual-Level Data**

To address challenges faced by researchers in acquiring administrative ILD on social-insurance disability program beneficiaries, and the shortcomings of many publicly available surveys with disability-related content, we evaluated three options to improve access to administrative ILD:

1. Partner with one or multiple state agencies to develop a shared database or a “fast-track” process to gain access to administrative ILD
2. Develop a “blueprint” for researchers that outlines the feasibility and process of obtaining administrative ILD from various agencies
3. Partner with the Longitudinal Employer-Household Dynamics program

We evaluated each option using the following criteria: data quality, access, privacy, cost, timeline, and feasibility. Each evaluation criterion is described below. These options focus on WC, TDI, and PFL administrative ILD. Improving access to SSA’s administrative data (specifically information on SSDI claimants) would also be beneficial, but given SSA’s strict data access requirements, we do not address options to access SSA administrative ILD.

*Data Quality:* One of the most important criteria is the quality of the data that would be available to researchers. High quality data would include information on individual-level characteristics such as age, gender, occupation, and pre-injury wage; social-insurance program data such as claim type, amount, duration, and type of benefits received; medical treatments; return-to-work outcomes; disability severity; and employer characteristics. Other important factors include whether the data is longitudinal, which would make it possible to track individuals over time, whether it is possible for the data to be linked to additional administrative or survey data, and the feasibility/accuracy with which the data may be linked to other sources.

*Access:* The greater the access among researchers, the greater the public benefit. Rich data that are not readily available to researchers either directly through an online source or through a specified application process does not generate public benefits. When reviewing the impact of each option on access we considered factors such as the burden of the application process for obtaining data. For instance, an option that reduces the burden of applying and acquiring data by simplifying the application or speeding the process would improve access.

*Privacy:* It is paramount that people’s privacy is protected and that high standards for privacy be a binding constraint. It is necessary to maintain privacy and meet those constraints regardless of the option pursued; however, there are still varying levels of privacy protection,

particularly as it relates to linking data from different sources. The highest level of privacy for linked administrative data would occur if an internal agency source were able to link administrative data from different sources, remove the specific individual SSNs, and replace the SSNs with random claim identifier numbers so the personally identifiable information never leaves the state agency systems.

*Cost:* There are costs related to pursuing, implementing, and maintaining each data acquisition option. Pursuing an option that requires extensive data agreements among state agencies would require significant time investments. Costs also vary based on the ease of implementation. Creating a new administrative database from scratch would have much higher implementation costs than adding new disability-related questions to an existing survey (not including the costs of administering the survey itself). Finally, each option will have different maintenance costs for the responsible agency. When we evaluate the cost of each option, it is an estimate that is meant to provide some guidance and is measured in relation to other options. We do not estimate specific monetary costs as this is beyond the scope of this report.

*Timeline:* This criterion measures the expected length of the timeline for a particular option to be completed. “Short term” would be less than 1 year, “Medium term” 1 to 2 years, and “Long term” 2+ years.

*Feasibility:* This final criterion indicates the likelihood that a particular option may come to fruition based on the development and implementation requirements.

The evaluations of these three options are reported in Section 6.2.

## 4. SOCIAL-INSURANCE DISABILITY PROGRAM DESCRIPTIONS AND RELATED ADMINISTRATIVE DATA SOURCES

Workers' Compensation, Temporary Disability Insurance, Paid Family Leave, and Social Security Disability Insurance programs protect individuals against the costs associated with work disabilities, as well as the costs associated with having to care for a family member with disabilities or medical needs. PFL programs also provide opportunities for workers to care for a family member or a newborn child without having to leave the labor force.<sup>21</sup>

In this section, we provide a brief overview of each program (WC, TDI, PFL, SSDI), and a description of related administrative aggregate program data and ILD sources.

### 4.1 Workers' Compensation

#### Program Overview

Workers' compensation programs provide medical care, rehabilitation, and cash benefits for workers who are injured on the job or who contract work-related illnesses, and pays benefits to the families of workers who die of work-related injuries or illnesses.<sup>22</sup> Each of the 50 states, as well as the District of Columbia and the U.S. territories, has its own WC program that is regulated by the state, with no federal financing or standards. Separate U.S. government programs cover federal civilian employees, longshore and harbor workers, and specific high risk workers (e.g., coal miners with black lung disease, energy employees exposed to certain materials such as beryllium, workers exposed to radiation, and veterans of military service).

State WC programs vary in terms of who is allowed to provide insurance, which injuries or illnesses are compensable, and the level of benefits provided. However, there is consistency across states in central features of the programs. Workers' compensation pays injury-related medical costs for injured workers and cash benefits for lost work time,<sup>23</sup> it is mandatory for employers in all states except Texas,<sup>24</sup> with limited exemptions for small employers and certain

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<sup>21</sup> Programs that combine Temporary Disability Insurance (Paid Medical Leave) and Paid Family Leave are often referred to as Paid Family Medical Leave (PFML) programs.

<sup>22</sup> The program overview of Workers' Compensation provided here is based on the Academy's annual report, *Workers' Compensation: Benefits, Coverage, and Costs*, and its supplementary Sources and Methods appendix.

<sup>23</sup> Wage-replacement rates vary by state but, on average, nominally replace about two-thirds of a worker's pre-injury gross wages. Empirical studies indicate that the actual replacement for permanent partial disability (PPD) benefits, the most expensive type of cash benefits, typically replace much less than two-thirds of lost wages. For instance, Boden et al. (2005) found that PPD benefits replace between 30 to 46 percent of lost wages in California, New Mexico, Oregon, Washington, and Wisconsin.

<sup>24</sup> Wyoming state law exempts employers from purchasing WC if their employees are not engaged in extra-hazardous employment, however the law's classification of extra-hazardous employment is so extensive that almost every occupation is classified as extra-hazardous and requires WC insurance coverage.

types of workers, and it is financed exclusively by employers except in three states where workers pay part of the cost of benefits through direct payroll deductions.<sup>25</sup>

Most employers purchase WC insurance from private insurers or a state insurance fund for a premium, which varies according to expected risk. Large employers may choose to self-insure for WC, but they must apply for permission from the state regulatory authority and demonstrate that they have financial resources to cover their expected WC losses. Many states also have special funds to cover exceptional circumstances, such as a second work-related injury (second-injury fund), and guaranty funds that ensure benefit payments in the event that a private carrier or self-insured employer becomes insolvent.

Several existing resources provide detailed overviews of benefit provisions and WC program characteristics by state (e.g., National Academy of Social Insurance WC annual reports; IAIABC and WCRI 2016; U.S. Chamber of Commerce 2018).<sup>26</sup>

## Administrative Data Sources

Table 2 reports information on the relevant agencies that administer or regulate WC programs, including the state self-insurance regulatory agency and state fund in the states where they operate. The table provides information on whether each agency listed produces an annual report, and if so, it indicates which program data is included. These annual reports often provide information on total program benefits and costs; however, some state agencies also include additional program information that is broken down by characteristics such as age, gender, benefit type, industry, injury type, and occupation. The table also includes other potential sources of WC data in each state.

The agencies that collect and house administrative ILD are designated state agencies such as the Department of Labor, Department of Industrial Relations, or WC Commission (the relevant state agencies are listed in Table 2). Most states require insurers, employers, and claims administrators to file information on WC claimants to the designated state agency, which maintain the information for internal administrative and research purposes. States are also required to send information to the National Association of Insurance Commissioners (NAIC).

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<sup>25</sup> In Washington, workers pay part of WC premium costs through payroll deductions. Oregon has special funds for some WC benefits that are financed in part by workers. New Mexico applies a per capita assessment based on employment on the last day of the quarter.

<sup>26</sup> Select WC program characteristics are summarized in the Appendices of the Academy's annual WC report: *Workers' Compensation: Benefits, Costs, and Coverage*. The most recent Academy WC annual report is: McLaren, Baldwin, and Boden (2018). The National Institute for Occupational Safety and Health Center for Workers' Compensation Studies has a WC Summary Fact Dashboard (<https://www.cdc.gov/niosh/topics/workercomp/cwcs/dashboard.html>) that provides an overview of WC facts for each state. Additionally, <https://workerscompensation.com/> provides a thorough review of state-by-state characteristics of WC programs.

State WC Rating Bureaus (or Organizations) are a second source of administrative claims data. WC insurers must set premiums at rates sufficient to cover expected benefits paid to workers, claims administration expenses,<sup>27</sup> other expenses, and profit. To set these rates, some states have established an independent, state-specific Rating Bureau.<sup>28</sup> Thirty-five states and the District of Columbia have designated the National Council on Compensation Insurance (NCCI) as their official Rating Bureau. Rating Bureaus are often designated as non-profit organizations that partner with private insurance carriers and competitive state funds.

The primary job of a Rating Bureau is to securely collect and maintain statistical information and to estimate the expected loss costs (expected benefits paid to workers in the future) to facilitate premium rate setting. Rating Bureaus require a vast amount of data to accomplish their task of projecting future risks. However, these data are seldom, if ever, made available to outside researchers because the data are proprietary to the insurance companies operating in the state, who supply data for the purpose of estimating future loss costs to facilitate premium rate setting.

Private insurers and third party claims administrators who handle self-insured employer claims are a third source of ILD on WC claimants. Roughly 80 percent of WC benefits are paid by private insurers or self-insured employers (McLaren, Baldwin, and Boden 2018), so these organizations house large amounts of data. There are some examples of data-sharing agreements with private insurers and claims administrators, but given the privacy concerns and risks of sharing data, they are infrequent to the authors' knowledge.<sup>29</sup>

The predominant insurance provider(s) in each state play a key role in determining the source of WC administrative data. In states with an exclusive state fund for providing WC insurance (North Dakota, Ohio, Washington, and Wyoming), the data are collected by one agency.<sup>30</sup> In states with hybrid structures that include private carriers, state funds, and self-insured employers, the data sources are fragmented.

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<sup>27</sup> In WC, this is often referred to as "Loss Adjustment Expenses."

<sup>28</sup> There are 11 states with independent WC rating bureaus: California, Delaware, Indiana, Massachusetts, Michigan, Minnesota, New Jersey, New York, North Carolina, Pennsylvania, and Wisconsin. See Table 2 for more details.

<sup>29</sup> The Workers Compensation Research Institute (WCRI) and the Liberty Mutual Research Institute for Safety (LMRIS) are two organizations with such agreements, either currently or in the past. WCRI conducts objective research pertaining to WC issues. WCRI's claims-level data are proprietary and include information from 24 sources, including national and regional insurers, claims administration organizations, state funds, and self-insured employers (visit [wcrinet.org](http://wcrinet.org) for more information). Until 2017, the Liberty Mutual Research Institute for Safety conducted independent, peer-reviewed research to advance scientific knowledge, help reduce injuries, and prevent disability using insurer claims data. Liberty Mutual Insurance owned and operated the Institute and staff researchers had access to the individual-level data contained within the group. However, the LMRIS closed in 2017 and there are no public plans to re-open the Institute.

<sup>30</sup> Additional data may be housed by self-insured administrators.

## 4.2 Temporary Disability Insurance and Paid Family Leave

### Program Overview

Five states have longstanding TDI programs, also known as State Disability Insurance or Paid Medical Leave programs (California, Hawaii, New Jersey, New York, and Rhode Island).<sup>31</sup> State TDI programs provide partial wage replacement for workers taking time off to recover from a non-work-related injury or illness, or from pregnancy. State TDI programs are implemented through private carriers, exclusive or competitive state funds, or employer self-insurance. The duration of benefits, compensation rates, restrictions on eligibility, and the share of program costs borne by employers and workers all vary by state.

State PFL programs are funded by employee and/or employer contributions and enable workers to take time off from work for the birth, adoption, or foster placement of a child, or to provide care for a close family member such as a spouse, domestic partner, parent, or child. Some programs also cover caregiving for grandparents, grandchildren, siblings, and/or in-laws. California, New Jersey, Rhode Island, and New York added PFL to their existing TDI programs.<sup>32</sup> Washington state and the District of Columbia enacted new laws establishing combined Paid Family and Medical Leave (PFML) programs, which will begin paying benefits in 2020.<sup>33</sup> In addition to state programs, some employers provide paid leave voluntarily.

### Administrative Data Sources

Table 3 reports the information on the relevant agencies that administer or regulate state TDI and PFL programs and whether each agency produces an annual report. These annual reports often provide information on program benefits and costs; however, some state agencies also include additional claims-related information that is broken down by characteristics such as age, gender, benefit type, industry, injury type, and occupation. The table indicates whether any additional information is provided, and the type of data available.

Of the currently operating TDI and PFL programs, Rhode Island is the only state with an exclusive state fund. California, New Jersey, and New York all allow for coverage through the state fund, private carriers, or self-insurance. Coverage in Hawaii for TDI is provided only through private carriers or self-insurance. The District of Columbia, when implemented, will have an exclusive state fund, and Washington State will administer its PFML program through

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<sup>31</sup> Rhode Island was the first state to adopt a TDI program in 1942, followed by California (1946), New Jersey (1948), New York (1949), and Hawaii (1969).

<sup>32</sup> California was the first state to add paid family leave to its TDI program in 2002, followed by New Jersey (2008), Rhode Island (2013), and New York (2016). Hawaii is the only state with TDI that has not adopted paid family leave.

<sup>33</sup> In 2018, Massachusetts signed into law a statute that provides Paid Family Medical Leave (PFML) benefits. The program will begin paying benefits in 2021. We did not include MA in our review of state PFML programs as the law was passed after completing our work for this project.

the Department of Labor and Industries, though employers will have the option to self-insure if they meet certain financial requirements.

There is administrative overlap between TDI, PFL, and state WC programs. For example, Hawaii's Department of Labor and Industrial Relations oversees both the TDI and WC programs, but private carriers provide the bulk of insurance coverage in the state, which reduces the availability of administrative ILD at the agency level. The Departments of Labor in New Jersey and New York retain information on both TDI and WC claimants, although both states have independent WC Rating Bureau's that house some of the WC private-carrier claims data. Rhode Island's Department of Labor and Training collects and stores information on WC, TDI, and PFL program beneficiaries.

## 4.3 Social Security Disability Insurance

### Program Overview

The SSDI program provides benefits to eligible workers of any age, as well as their dependents, who become disabled and are unable to work prior to reaching full retirement age.<sup>34</sup> Eligibility for SSDI requires workers to have a history of contributions to the Social Security system.<sup>35</sup> SSDI benefits begin after a five-month waiting period and are paid to eligible workers who have long-term impairments that preclude gainful employment that is suitable for the worker given their training and experience. Medicare pays health care costs for persons who receive SSDI benefits after an additional 24-month waiting period (or 29 months after the onset of disability).

The review and appeals process for SSDI claims is extensive. Adult workers initially file a claim for SSDI benefits at state-level Disability Determination Services (DDS) where disability examiners and medical staff render a determination. If the claim is denied, the decision can be appealed to four successive levels: 1) the Reconsideration stage<sup>36</sup> for another decision made by a different disability examiner and medical team at the same state-level DDS, 2) the federal-level SSA administrative hearings system where their case will be heard by an Administrative Law Judge at a Hearing Office, 3) the Appeals Council stage, for review by a separate group of

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<sup>34</sup> This section also identifies data sources that include Supplemental Security Income (SSI) program beneficiaries. SSI provides benefits to disabled workers and to the families of disabled children and Medicare coverage is available after 24 consecutive months of benefits. SSI is not considered a social-insurance program because it is means-tested programs and eligibility does not depend on prior work experience, however this program serves a crucial role in supporting the economic security of people with disabilities.

<sup>35</sup> To qualify for SSDI, individuals must meet two different earnings tests: 1) a recent work test, based on age at the time of disability, and 2) a duration of work test. Generally, workers must have earned at least 20 work credits in the 10 years immediately before becoming disabled, although younger workers may qualify with fewer credits.

<sup>36</sup> There are 9 'prototype' states in which the Reconsideration stage does not exist – Alabama, Alaska, Colorado, Louisiana, Michigan, Missouri, New Hampshire, New York, Pennsylvania – as well as parts of California. SSA instituted the 'prototype' in 1999 with the expectation of extending it nationally. However, the consequences of the Reconsideration stage's elimination did not align with expectations. As a result, the original 'prototype' states remain the only states without a Reconsideration stage and any future change would end the 'prototype' by restoring the Reconsideration stage to these states.

judges within SSA's federal system who may affirm the earlier denial, approve the claim, or remand the case back to the Hearing Offices for another determination, and 4) the federal court system, which is entirely separate from SSA's administrative hearings system.

## Administrative Data Sources

SSDI administrative data is collected and maintained by the Social Security Administration. Historical aggregate data on Social Security programs are publicly available through two reports published by SSA that contains information on beneficiaries, costs, claim outcomes, and terminations. SSA publishes an Annual Statistical Supplement to the Social Security Bulletin (SSA 2018) with aggregated data on SSA's retirement benefits as well as information on SSDI and SSI. A separate Annual Statistical Report on the SSDI Program (SSA 2018a) is devoted solely to SSDI/SSI and contains detailed information on these programs. The data is aggregated by state, year, beneficiary type, age group, gender, and/or impairment. Both these reports are publically available online beginning with the 2000 reports, when the first Annual Statistical Report on the SSDI Program was issued. Additionally, data.gov includes a number of datasets pertaining to SSDI, though part of this is duplicative of the information contained in SSA's annual reports. Further, SSA's website (<https://www.ssa.gov/open/data/>) contains aggregate-level data relating to its processes as well as some ILD which is discussed below.

SSA maintains a wealth of administrative ILD in various datasets. Due to the sensitive nature of this information, access is restricted and not publicly available for research purposes. However, non-SSA researchers can gain indirect access by partnering with SSA researchers. Additionally, some Public Use Files are created using samples of SSA's administrative datasets. We briefly outline SSA's administrative ILD datasets and Public Use Files, including: 1) operations of the two state-level and two federal-level SSA stages of SSDI/SSI claims, 2) Master Earnings File (MEF), 3) Continuous Work History Sample (CWHS) and related files, 4) Master Beneficiary Record (MBR), and 5) Disability Analysis File (DAF).

SSA collects extensive administrative ILD on the operations of the two state-level and two federal-level SSA stages of SSDI/SSI claims.<sup>37</sup> The state-level Disability Determination Services collect information on SSDI/SSI claims at the Initial and Reconsideration stages as claims are filed and processed. SSA collects data from all DDSs and integrates them geographically so that each dataset incorporates data across all DDSs, with the various datasets held in SSA's Structured Data Repository. SSA also collects and maintains data that tracks basic background information on claimants and claim characteristics in the two federal-level stages: the Hearing Office and Appeals Council. It is possible to link the administrative data for the two federal-level SSA stages with administrative data for the two state-level SSA stages, excluding only the final stage external to SSA that is reached only by a small portion of cases.

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<sup>37</sup> The two state-level states are the Initial decision and the Reconsideration, and the federal-level states are during the appeals process at the Hearing Office stage and the Appeals Council. While it is possible for someone to appeal to the final stage outside SSA's system, it is rare and SSA does not collect much data on this stage.

The MEF is based on data supplied by the Internal Revenue Service that assembles ILD on earnings. This dataset is not specifically related to SSDI/SSI, as it was initiated in 1937 for the purpose of determining retirement benefits. Only workers covered by the Social Security program are included in the MEF, but this proportion of the workforce has increased from 52 percent in 1940 to 96 percent in recent years (Olsen and Hudson 2009). The exact nature of the earnings data collected in the MEF has varied over the decades; since 1978, it has consisted of annual wage & salary income from W2 forms plus covered self-employment income from 1040 SE forms. SSA verifies each worker's name and social security number on a W-2 or 1040 SE form via SSA's Numerical Identification File, and mismatches are subjected to a variety of matching routines, resulting in just 4 percent of reported earnings being excluded from the MEF.

The CWHS is a one-percent sample of all Social Security numbers issued since 1937, matching any earnings and employment information from the MEF with demographic information from the Numerical Identification File and benefit information from the MBR. Aside from the long-standing CWHS, first published in 1941, SSA also generates several other one-percent extracts such as a cross-sectional Employee-Employer files, a longitudinal Employee-Employer files, a Self-Employment file (Olsen and Hudson 2009), and the 2006 Earnings Public Use File.

The MBR tracks all recipients of Social Security retirement and disability benefits. For each recipient, there is a Primary Insurance History record for retirement-related information, a Disability Data record for disability-related information, and a Historical Payment Data record tracking payments made to each recipient on a monthly basis. Information gathered by these datasets includes basic demographics of the recipients, insurance status, disability diagnoses, and payment amounts. Payments made to SSI recipients specifically are maintained in the Supplemental Security Record (SSR), dating from the initiation of SSI payments in 1974. Additional information stored in the SSR includes basic demographics on recipients and disability diagnoses. The National Center for Health Statistics of the Centers for Disease Control has linked certain health surveys with the MBR, SSR, and related datasets. The linked datasets are available for public download with a limited number of variables, while the full dataset is restricted to permitted researchers.

The DAF is a comprehensive longitudinal source of data on adults who have received SSDI or SSI benefits starting in 1996. It is prepared on an annual basis by Mathematica, which assembles it from several administrative data sources. Although access to the DAF itself is restricted, there is a Public Use File containing a random ten percent sample of beneficiaries and a selection of variables most likely to be useful to researchers. Time-invariant data concerning each recipient, such as demographics and diagnosis codes, are contained in a Demographic dataset, while separate annual datasets for each calendar year track time-varying data on a monthly basis (Schimmel Hyde et al. 2018).

## **5. IMPROVING ACCESS TO AGGREGATE-LEVEL PROGRAM DATA**

This Section describes the aggregate program data on state-based WC, TDI, and PFL programs that we collected and consolidated for this project. We did not collect any aggregate SSDI program data because it is publically available from SSA's online sources as described in Section 4.3.

Section 5.1 describes the Academy's WC benefits, coverage, and costs data, Section 5.2 provides information on our legal review of WC legislative changes between 2000 and 2016, and Section 5.3 reports TDI and PFL program characteristics and benefits, costs, and claim characteristics data. The purpose of this data collection effort was to provide aggregate-level WC, TDI, and PFL program data and make it more accessible to researchers – we do not analyze the data or provide any summary statistics.

### **5.1 Updated and Consolidated National Academy of Social Insurance Workers' Compensation Data: 1996-2016**

This section describes the Academy's WC data and corresponding tables (Tables A1-A6). NOTE: These data tables are included as a separate attachment to this report. There are four primary elements of the Academy's WC data: benefits paid, employer costs, coverage of the workforce, and benefits and costs as a share of payroll.

*Benefits Paid and Employer Costs:* The Academy's estimates of WC benefits paid and employer costs are based on four main data sources: 1) data from the annual questionnaire distributed by the Academy to state agencies and from annual reports published by the states; 2) data purchased from A.M. Best, a private company that specializes in collecting insurance data and rating insurance companies; 3) data from the National Association of Insurance Commissioners (NAIC); and 4) data from the National Council on Compensation Insurance (NCCI). Together, the data from state agencies, A.M. Best, NAIC, and NCCI allow the Academy to piece together estimates of WC benefits paid and employer costs by private insurance carriers, state funds, and self-insured employers. The U.S. Department of Labor (DOL) Office of Workers' Compensation Programs provides data on benefits paid through federal programs.

Tables A1-A2 report information on medical and total benefits paid by state, respectively, for the years 1996-2016. Estimates of WC benefits paid are reported in calendar years. Benefits paid include cash benefit payments to injured workers, and medical payments for health care and rehabilitation in the particular year, regardless of when the injury or illness occurred. When data provided by state agencies are reported in fiscal years, an average across two fiscal years to is used to estimate a calendar year. Guaranty Fund, second-injury fund, and special fund benefit payments are included in the totals.

Table A3 reports employer costs by state, for the years 1996-2016. The methods for estimating employer costs vary according to the employer's source of WC coverage. For employers purchasing insurance from private carriers or state funds, the cost of WC in any year equals the sum of premiums paid in that year plus reimbursements paid to the insurer under deductible provisions. Self-insured employer costs are equal to self-insured benefits paid plus administrative costs. Assessments for guaranty funds, second-injury funds, and special funds are included in the cost estimates.

*Coverage:* The Academy's methodology for estimating the number of covered workers is designed to count the number of workers who are legally required to be covered by WC under state laws. The number of workers and amount of wages covered by unemployment insurance (UI) in each state is the starting point for the estimates. Then, the numbers of workers that are not required to be covered by WC according to each state's statute (e.g., workers in small firms and agricultural workers) are estimated. Finally, the exempted workers are subtracted from the UI base to determine the proportion of UI covered workers that are covered by WC. All federal employees are covered by WC, regardless of the state in which they work. Table A4 reports the number of WC covered workers, by state, for the years 1996-2016.

*Benefits and Costs as a Share of Payroll:* Some of the interstate variation in benefit payments and employer costs can be attributed to different trends in employment and wages across states, rather than to structural differences in state WC systems. A standardized measure of benefits and costs (benefits and costs per \$100 of covered payroll) reflects changes in employment and wages over time.

The standardized measure captures interstate differences in: (1) the incidence, nature, and severity of work-related injuries and illnesses; (2) the quantity, prices, and effectiveness of medical services provided to injured workers; (3) the dollar value of cash benefits (driven by factors such as the average weekly wage, the wage replacement rate, maximum and minimum weekly benefits, the waiting period and retroactive period, and the maximum allowable duration of benefits); and (4) public and private investments to reduce durations of work absence, as well as vocational rehabilitation efforts to reduce the functional impairment associated with work-related injuries. Tables A5 and A6 report benefits per \$100 of covered wages and costs per \$100 of covered wages, respectively, between 1996 and 2016 for each state.

## **5.2 Workers' Compensation Legislative Changes: 2000-2016**

Table 4 displays the findings from our WC legislative legal review. For each recorded legislative change, the legislative bill number is listed. The table indicates the adoption of the American Medical Association (AMA) Guides to the Evaluation of Permanent Impairment and medical fee schedule changes. Legislative changes are recorded in the year when NCCI registered a change in benefits or premiums due to the legislation, which is not necessarily the same year the bill was passed. We chose to report the timing based on NCCI's criteria to remain consistent across

states and time and because different provisions in large pieces of WC legislation become effective at different times over multiple years. This approach captures the impact of a particular provision when it came into effect. Complete sources for each legislative change are described in the Appendix.

### **5.3 Temporary Disability Insurance and Paid Family Leave Program Characteristics and Data**

Tables 5 and 6 highlight the program characteristics for each state TDI and PFL program, respectively. The tables indicate the structure of each program by identifying the different sources of insurance coverage available. We describe eligibility for claiming benefits under the program based on work and income requirements, types of insured events, and coverage of self-employed workers. In the PFL program characteristics table, we also indicate which family members are covered in the program. The tables include information on program financing characteristics such as employer and employee contribution rates, as well as information on specific benefit provisions in each program.

The data we collected on TDI and PFL program benefits, coverage, and claim characteristics are included in Tables A7-A9. NOTE: These data tables are included as a separate attachment to this report.

Table A7 documents total benefits paid for the TDI and PFL programs in California, New Jersey, and Rhode Island. For each program, we report total benefits paid in calendar years as well as the average weekly benefit amount. Rhode Island enacted its PFL program in 2014, and it only reports TDI benefits including caregiver (PFL) claims, and TDI benefits for caregiver claims. To identify non-caregiver claims and benefits paid, we subtracted the amounts reported for caregiver claims from the total.

Table A8 includes information on costs and contributions by employees and employers to each state TDI and PFL program. We report characteristics of the program's tax structure, namely the employee contribution rate and the maximum taxable wage base on which the contribution rate is applied. The maximum taxable wage base is the limit on the amount of earnings subject to taxation in a given year. The program's financing is captured in the amount of worker contributions.

Table A9 documents the characteristics of TDI and PFL claims in California, New Jersey, and Rhode Island. For TDI, we report the number of claims filed, the number of claims paid/approved, and the average claim duration in weeks. For PFL, we also report the breakdown in the percentage of approved claims for family care versus for child bonding.

## 6. IMPROVING ACCESS TO INDIVIDUAL-LEVEL DATA

Section 6.1 assesses the feasibility and process of obtaining administrative ILD in selected WC, TDI, and PFL state agencies and organizations. Section 6.2 evaluates three options for improving access to administrative WC, TDI, and PFL administrative ILD. Given the strict data security measures at SSA, we do not address the feasibility or process of gaining access to administrative ILD on SSDI beneficiaries.

### 6.1 Feasibility and Process for Obtaining WC, TDI, and PFL Administrative Individual-Level Data

We identified the feasibility of obtaining administrative ILD from 20 of the 29 state agencies and organizations that we contacted. Of these 20 agencies and organizations, we confirmed the feasibility of acquiring ILD in 14 by communicating directly with an agency representative, 5 agencies and organizations that provided administrative ILD for previous studies were identified through the literature, and we identified one state agency that provides de-identified administrative ILD on a website.<sup>38</sup> Table 7 reports the specific agencies and organizations where we identified the feasibility of acquiring WC, TDI, and PFL administrative ILD, if it is possible to link data to other sources using identifiable information, and the source of this information (speaking with a representative, identified study using this data in the literature, or a website).<sup>39</sup>

Of the 14 agencies and organizations that we communicated directly with a representative, 9 confirmed that it was feasible to obtain administrative ILD for research purposes under certain circumstances: 1) Alaska Department of Labor, Division of Workers' Compensation, 2) Kansas Department of Labor, Division of Workers' Compensation, 3) Minnesota Department of Labor and Industry, 4) Ohio Bureau of Workers' Compensation, 5) Oregon Department of Consumer and Business Services, 6) Rhode Island Department of Labor and Training, 7) Tennessee Department of Labor and Workforce Development, 8) Washington Department of Labor and Industries, and 9) Wisconsin Department of Workforce Development, Division of Workers'

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<sup>38</sup> The information included in Table 7 should be viewed as guidelines and not definitive in all cases due to variation in agency and organization processes for handling requests for administrative ILD.

<sup>39</sup> The agencies that we were not able to obtain information from are: Alabama Department of Labor; Industrial Commission of Arizona; Colorado Department of Labor and Employment; Florida Department of Financial Services, Division of Workers' Compensation; Maryland Workers' Compensation Commission; Michigan Department of Licensing and Regulatory Affairs, Division of Workers' Compensation; New Jersey Department of Labor; New Jersey Compensation Rating and Inspection Bureau; and North Dakota Workforce Safety and Insurance. Additionally, we were not able to confirm the feasibility or process for obtaining administrative ILD by speaking with a representative from the California Employment Development Department, Workers' Compensation Insurance Rating Bureau of California, New Mexico Workers' Compensation Administration, or Texas Department of Insurance, however we identified studies that have used data from these sources as described in this section.

Compensation. All of these agencies administer state WC programs except for Rhode Island's Department of Labor and Training, which administers the state's WC, TDI, and PFL programs.

Five organizations verified that they do not provide administrative ILD to researchers: two WC rating bureaus (New York Workers' Compensation Rating Bureau and the Workers' Compensation Rating and Inspection Bureau of Massachusetts), two WC agencies (Montana Department of Labor and Industry and Wyoming Department of Workforce Services), and Hawaii's Department of Labor, Disability Compensation Division, which administers the state's WC and TDI programs.

Among the state agencies that we confirmed with a representative that they do provide administrative ILD under certain circumstances, there are a number of similarities in their processes. A majority of these state agencies have a formal claims data request procedure that requires a detailed email or letter request. In the initial proposal letter, there must be a thorough account and description of the objectives, hypotheses, and methods to be used in the study; relevance to the agency or organization's mission; experience of the researchers and the related institutions that are associated with the project; and the original contribution of the research. In Alaska and Washington a public records disclosure request is required.

Research directly related to agency objectives is more likely to gain access. Agencies have limited resources, and research that does not address agency goals will have a lower priority. Minnesota, Ohio, Oregon, Rhode Island, and Washington all reported that there are limitations on the types of research questions that may be addressed using their data. For most data requests, states do not report charging a cost, however this may vary depending on the complexity of the request and the resources required.

There are also limitations on the types of data available – for instance, some agencies have data only on indemnity claims (those where WC cash benefits were paid) and not on medical-only claims (which are short-term injuries without any cash benefits paid). Many WC state agencies and rating bureaus use the Electronic Data Interchange (EDI) standards developed by the IAABC for first reports of injury and subsequent reports of injury, but these do not provide distinctions for medical spending beyond physician, hospital, and other medical expenses. States that have designated NCCI as the licensed rating and statistical organization use the Unit Statistical Report.

Not surprisingly, state agency representatives are most concerned about maintaining the privacy of the individuals in the data set. In some states (e.g., Wyoming), laws prevent agencies from sharing any ILD. Multiple agencies also noted another major concern that the data would be misinterpreted and used improperly. In some instances, agency representatives said that they want to be involved in the research process to ensure that researchers do not misinterpret the data and come to unsupported conclusions.

Table 7 also includes 5 agencies and organizations that have provided administrative ILD for research purposes in the past that we identified in the literature but did not officially respond

to our requests for information. Three of these organizations are in California: the California Disability Evaluation Unit (DEU), which is a state agency that uses information from doctors' medical reports to produce disability ratings in permanent partial disability WC cases; the California Employment Development Department (EDD), which is a state agency that administers state TDI and PFL programs and houses earnings data; and the California Workers' Compensation Insurance Rating Bureau (WCIRB), which is a non-profit organization that collects data from licensed WC insurance carriers in California and uses the information to compute recommended premium rates for the California Department of Insurance.<sup>40</sup>

Reville et al. (2005) and Seabury et al. (2012) both used California DEU data on disability ratings linked to administrative data from another source. Reville et al. (2005) linked DEU data on injured workers to administrative data on wages from California's EDD to evaluate the state's permanent partial disability rating system. Seabury et al. (2012) linked DEU data with WC claims data from the WCIRB to investigate the relationship between WC experience rating and return to work outcomes. Neuhauser et al. (2018) used WC data from the California Division of Workers' Compensation and TDI (State Disability Insurance) data from the California EDD to analyze the potential for using this information to identify workers at high risk of dropping out of the labor force and entering SSDI. Bana et al. (2017) used administrative ILD from the California EDD to analyze labor-market outcomes of California PFL program beneficiaries.

New Mexico's Workers' Compensation Administration (NMWCA) has provided administrative ILD for a number of research projects. Reville et al. (2001a) used WC claims data from the NMWCA linked to total earnings from employment reported to the New Mexico Department of Labor to examine post-injury employment, earnings losses, and the adequacy and equity of WC benefits for New Mexicans with permanent partial disabilities compared to the outcomes of workers injured in four comparison states. More recently, O'Leary et al. (2012) and Seabury et al. (2014) used NMWCA data linked to federal SSA data. O'Leary et al. (2012) investigated the impact of a work-related injury or illness on the probability of receiving SSDI benefits later in life, while Seabury et al. (2014) studied the adequacy of WC benefits.

The Texas Department of Insurance provided WC claims data for a previous study. Dillender (2015) used WC claims data from the Texas Department of Insurance, as well as data from the National Health Interview Survey and the Survey of Income and Program Participation to evaluate the effect of health insurance on WC filing.

One state agency representative directed us to the New York State's Workers' Compensation Board (which administers WC, TDI, and PFL in New York State) online database of WC claims.<sup>41</sup> The database includes claims since 2000 with a "Claim Identifier," but no personally identifiable

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<sup>40</sup> The WCIRB may only share data to an organization if the California Insurance Code provides authorization, which must come from the Department of Industrial Relations (DIR) or government agencies with California Department of Insurance (CDI) that are authorized according to the Insurance Code.

<sup>41</sup> <https://data.ny.gov/Government-Finance/Assembled-Workers-Compensation-Claims-Beginning-20/jshw-gkgu/data>

information. This source is rich with information on the claimant, injury type, benefits paid, location, attorney representation, carrier type, etc. We were not able to identify whether the New York Workers' Compensation Board provides custom administrative ILD on WC, TDI, or PFL claimants, or whether it is possible to link to administrative data from other sources.

Of the 9 agencies that we confirmed do provide administrative ILD under certain circumstances for research purposes by speaking with a representative, 5 indicated that it is possible to obtain identifiable data in order to link to administrative data from another source, though each noted that it was extremely rare (Kansas, Minnesota, Oregon, Washington, and Wisconsin). Oregon's Department of Consumer and Business Services indicated that other state agencies may be granted identifiable data through a special interagency agreement. In Washington State, the Department of Labor and Industry noted that it is possible to obtain identifiable information in very limited circumstances if the Department deems it beneficial to its administration of Title 51 RCW, the Washington State Industrial Insurance Act. Additionally, Alaska's Department of Labor and Tennessee's Department of Labor and Workforce Development noted that identifiable data may only be shared with other state agencies. Rhode Island's Department of Labor and Training noted that no personally identifiable information will be provided. We did not confirm the feasibility of obtaining identifiable information from Ohio's Bureau of Workers' Compensation.

As researchers are interested in obtaining linked administrative ILD, not ILD with personally identifiable information itself, it is possible that the responses from Alaska, Tennessee, and Rhode Island do not indicate that it is not possible to obtain de-identified, linked administrative ILD. One common method to provide linked administrative ILD would be to have the state agencies link data using personally identifiable information, de-identify the data, and then share a de-identified dataset with the researcher(s). This is an ideal situation if the agency linking the data has experience and is able to accurately link the data. While some researchers may have superior linking techniques, providing ILD with SSNs for outside researchers does carry more privacy risk, and additional precautions would have to be followed.

All of the agencies indicated that acquiring personally identifiable information requires a more extensive process due to the privacy risks associated with sharing the data. These requests undergo greater scrutiny and require the approval of all of the participating agencies, as well as state governing bodies.

Table 8 reports the availability of various data elements from 5 WC state agencies that provided this information. Additionally, Rhode Island's Department of Labor and Training provided information on administrative data elements available for Temporary Disability Insurance and Temporary Caregiver Insurance claimants. The table lists the availability of demographic information, occupation, employer characteristics, insurer type, injury and claim date and type, benefit type and amounts paid, attorney involvement, return to work outcomes, and treatment information. The elements listed in Table 8 would be useful for researchers studying SAW/RTW outcomes but are not comprehensive. As the table displays, most of the data elements in the list are collected by the agencies that provided information.

## 6.2 Options to Improve Access to Administrative Individual-Level Data

### Option 1: Partner with State Agencies

One option to improve access to administrative ILD on WC and PFML claimants is to develop a data-sharing agreement between one or more state agencies or organizations that houses the relevant data. The agreement could allow for either: 1) the creation of a new database of administrative claims data that contains a sample (or all) of the claims, or 2) a fast-track application process to acquire administrative claims data.

A new database could be housed on a secure server with access limited to the partnering agencies and to researchers through a defined application process. Agencies could send claims data quarterly to update the database. This would require personnel to clean and organize the data and develop universal variable names that were synced if the data were coming from multiple agencies. This would allow for one common data dictionary that could be made public and give researchers the ability to review the variables and information contained in the database to help write proposals and design studies before applying for access to an extract of the data.

A fast-track application process would entail an agreement between the partnering agencies to develop an application protocol that facilitates data sharing. One example is an agreement between a state agency, the Department of Labor, and the Academy that allows the partnering agencies to gain access to administrative claims data for research purposes and under certain data-security and other conditions. For instance, access could be allowed for research studies that are conducted by qualified researchers on a range of potential topics agreed upon using approved methods. Once researchers have applied and received approval to receive access, future requests would be “fast-tracked” and would not require the same extensive application process as the researcher’s information would already be in the system.

Standard privacy and data-security requirements could be set in place – for instance, the use of a specified File Transfer Protocol to transfer data and storage and disposal requirements. Additionally, any data provided could be de-identified to remove any personally identifiable information unless the data were to be linked to another source using an identifier such as a SSN (in which case the personally identifiable information could be removed in the analytical file once the data are linked).

Because the feasibility of securing a data-sharing arrangement with a private carrier, claims administrator, or WC Rating Bureau is low, we focus on designated state agencies when evaluating this option. To obtain information on the feasibility and process of partnering with state agencies to develop a new database or fast-track proposal process, we contacted state agency representatives and spoke with researchers who have experience obtaining individual level WC, TDI, and PFL administrative data.

*Data Quality:* States vary in their ability to collect and maintain data on injured workers. We spoke to a former IAIABC Executive Director who led an effort in 2004 to develop a multi-state administrative WC claims database. The effort ultimately failed; some data was provided by the states involved, but it had many errors and inconsistencies. Perhaps more importantly, most of the state agencies do not track information on employment or health outcomes and would need to be linked to additional administrative data from a separate agency to study these topics. In general, administrative WC data contains information on the date and type of injury, the type of benefits received, the weekly benefit paid, duration of benefits, and some personal characteristics of the claimant such as age and gender. There is no indication if a worker returned to work after benefit payments cease.

There are state agencies that do collect and maintain high-quality administrative data that includes information on worker and employer characteristics, and in a select few agencies, information on time to return to work. Partnering only with select states limits the generalizability of research findings, which has been cited as a limitation of the existing WC literature (Seabury 2012).

*Access:* Data access in a successful partnership would depend on the specific data-sharing agreement requirements and the proposal process outlined. If a new dataset of administrative claims were created, strict protocols would still have to be followed to ensure that the data were used only for research purposes. Still, the process would facilitate access to qualified researchers. Developing a data-sharing agreement with a state agency that maintains administrative data on WC, TDI, and PFL claimants (in one of the states that collects data on all three programs) would improve access without increasing the cost of developing a partnership and implementing an agreement across multiple agencies. A fast-track application process would improve access by speeding up the application process. Both options would improve access relative to the status quo.

*Privacy:* A new, shared database of administrative claims would create new privacy risks. There would have to be significant efforts to ensure that the data were transferred and stored securely. Under a fast-track proposal process, there would be no change in privacy compared to the status quo for specific data acquisitions. However, assuming there is some non-zero probability risk a privacy breach with any data share and acquisition, then implementing a fast-track proposal process that increases the number of researchers that gain access to the data would therefore increase privacy risks – simply because there are more opportunities for there to be a privacy breach.

*Cost:* The costs of pursuing, implementing, and maintaining partnerships with state agencies to create a shared database of administrative claims are high. Given the strict requirements agencies have in providing data for individual requests, developing a shared database would require significant planning to develop data-sharing and security protocols. This option would also require significant staff resources in the partnering state agencies. Identifying ways that

minimize those agency costs would increase the chances that a particular state would agree to any type of data-sharing agreement.

The costs of a fast-track approval process are lower than developing a new shared database. The requirements for applying for data, researcher qualifications, study topics, etc. would have to be agreed upon between the partnering agencies.

*Timeline:* The timeline for a data-sharing partnership to create a new database of administrative ILD with a state agency to become fully operational is “long-term” (2+ years). Specific states would need to be identified, followed by the design of the data-sharing agreement, Memoranda of Understanding, as well as database design and storage requirements. Finally, a proposal and extraction processes would have to be put in place.

The timeline to implement a “fast-track” application process would be shorter than the timeline for developing data-sharing partnerships and creating a new database of administrative ILD. This option could be achieved in the “medium term” (1 to 2 years). The data-sharing agreements, Memoranda of Understanding and proposal process would need to be put in place, but this option would not require the same effort to create a new database. The participating agencies would not need to alter their data storage or extraction processes.

*Feasibility:* Based on previous efforts and communications with state agency representatives, the feasibility of partnering with one or more state agencies in a data-sharing agreement to develop a shared database is low. Most state agencies and Rating Bureaus are reluctant to provide administrative ILD to researchers for research projects. The Longitudinal Employer Household Dynamics (LEHD) survey, administered by the U.S. Census Bureau, follows this model. However, the LEHD has the significant resources, experience, and the credibility of the Census. We discuss the LEHD in more detail in Option 3.

The feasibility of pursuing a “fast-track” application process to acquire data is medium – it is more feasible than developing a shared database, but it would still require significant efforts to identify agencies that provide administrative ILD under certain circumstances who are willing to participate.

One drawback of pursuing either a shared database or a fast-track application process with specific state agencies or organizations is that the administrative data often do not contain all of the information on employment and health outcomes required to perform thorough analyses. Successful data-sharing agreements would ease the burden of acquiring ILD from the particular agency, but there would often still be a requirement to request administrative data from another source unless multi-agency partnerships were obtained. Data-sharing agreements would require efforts to identify data security infrastructure and data transfer options, as well as to develop and clearly communicate the benefits to potential partner agencies.

## Option 2: Develop a “Blue-Print” for Researchers

A second option is to develop a “blue-print” for researchers that provides information on the process for obtaining administrative ILD from relevant agencies and organizations, including the type of data available and specific data acquisition requirements. Collecting and consolidating information on the feasibility and process for obtaining administrative ILD from state agencies could yield benefits to researchers by lowering their search costs. Posting this information on a website where it is accessible to the general public would help maximize the public benefits of this option.

*Data Quality:* The data quality would not differ from the status quo. Researchers would have access, under certain circumstances, to the same data that is currently available. Specific data quality would depend on state agencies and other organizations providing data.

*Access:* While the specific requirements for access with each agency would not differ from the status quo, the visibility of the feasibility and process could encourage more researchers to study more SAW/RTW research topics.

*Privacy:* Relative to the status quo, privacy concerns would remain unchanged. However, as described in Option 1, if publishing a “blue-print” for researchers increases the number of data shares and acquisitions, then the greater access would increase privacy risks, assuming there is a non-zero risk of a privacy breach with any data share and acquisition.

*Cost:* The cost of this option is lower than developing a partnership with state agencies. The costs are entirely contained in obtaining information from state agencies and in systematically documenting that information. No specific agency agreements would need to be developed. Some of the initial costs were incurred in the production of this report, which outlines data sources in Section 4 and the feasibility and process of obtaining administrative ILD in a select number of states in Section 6.1.

*Timeline:* This option could be implemented in the short- to medium-term but would depend on the responsiveness of certain state agencies and the staff time required.

*Feasibility:* The feasibility of this option is high. There are no barriers to completing this work and developing a blue-print for researchers interested in obtaining administrative ILD. However, the project would require funding and the cooperation of state agencies to provide information on the feasibility and process for acquiring administrative ILD.

### **Option 3: Partner with the Longitudinal Employer-Household Dynamics Program**

Partnering with an organization that is currently fielding a survey leverages the expertise and data infrastructures already in place. This option describes a potential partnership with the Longitudinal Employer-Household Dynamics (LEHD) program. LEHD is part of the Center for Economic Studies (CES) and combines federal, state, and Census Bureau data on employers and employees under the Local Employment Dynamics (LED) Partnership. The LED Partnership is a voluntary federal-state partnership that started in 1999. Its main purpose is to merge data from workers with data from employers to produce a collection of enhanced labor market statistics, subject to strict protection of the identity and confidentiality of the individual respondents.

Under the LED Partnership, states agree to share UI earnings data and the Quarterly Census of Employment and Wages (QCEW) data with the Census Bureau. Restricted-use microdata are available for qualified researchers with approved projects through restricted access use in Census Research Data Centers (RDCs). LEHD data available in the RDCs includes job-level quarterly earnings history data, person-level demographic data, establishment-level firm characteristics, and establishment-level Quarterly Workforce Indicators. Currently, all states and jurisdictions have a partnership with the LEHD except for Alaska.

*Data Quality:* The LEHD is a rich source of linked administrative data that contains information on worker and employer characteristics. The data allows researchers to assess job flows and employment patterns among workers across the country. The LEHD collects much of the relevant labor market and related information needed to study the outcomes of individuals with disabilities since many state partners provide employment data linked to employer characteristics. Census personnel are experienced and skilled with handling this type of data, as well as linking it across sources, which would minimize errors that individual researchers are at risk for when linking administrative data from multiple sources. Combining this currently available information with information on WC, TDI, and PFL claimants would be a valuable resource for researchers interested in studying SAW/RTW topics. Additionally, a multi-state partnership would enable researchers to study the outcomes of WC, TDI, and/or PFL claimants across states, which potentially improves the generalizability of research findings, rather than being constrained to single-state analyses.

This option overcomes many of the challenges and shortcomings of developing partnerships with specific state agencies as well as challenges using currently available national surveys to study WC, TDI, and PFL claimants. The data would contain the universe of individuals that filed a WC, TDI, or PFL claim, rather than a small proportion of individuals in a sample. For instance, while the Current Population Survey is nationally representative, the number of survey respondents with reported WC earnings is small, making it challenging to conduct analyses of that population. Important information on individual and employer characteristics is included, and the LEHD links to useful data on employment outcomes and wages that is not present in most administrative data.

The LEHD is currently fielding a pilot program called Post-Secondary Employment Outcomes (PSEO) that provides data on earnings and employment outcomes linked to information on education.<sup>42</sup> With the recent development of the PSEO program, this option could potentially also combine information on educational attainment, which is a factor that is not generally available in most administrative datasets. The study design is longitudinal, which allows researchers to track individuals over time. Not only would this allow researchers studying SAW/RTW topics to analyze wage loss, it would also allow them to more accurately assess SAW/RTW outcomes, instead of only evaluating when an individual's benefits cease. Further, researchers could explore sustained SAW/RTW and employment patterns of individuals after a WC, TDI, or PFL claim.

The downside of this option is that researchers would not have opportunities to link this data with other administrative data sets from agencies not included in the LED Partnerships unless separate data-sharing agreements are reached. For instance, linking administrative data to the hospital records of the same individual or a family member could provide new insights into the effectiveness of medical treatments and the relationship between the outcomes of individuals receiving PFL benefits to care for a family member with a disability or illness.

Unlike LED Partners that collect and maintain UI wage records, the quality of data from WC, TDI, and PFL agencies vary, and this pursuit would be met with some of the data quality challenges that the IAIABC faced when trying to coordinate a partnership (see above, in the section on Data Quality for Option 1). States with relatively higher-quality data may be more likely to participate.

*Access:* Currently, there is an application process to acquire and use ILD. Researchers can access data files onsite at a Census RDCs which are administered by the CES. Approved researchers are required to access the data in one of 29 RDCs around the U.S. Researchers contact the RDC administrator at their location of choice to identify the specific access fees and proposal requirements. The proposal generally must fit the Bureau's mandate and describe the project, including the datasets that will be needed, research questions, methodology, expected output, project duration, and funding sources.

*Privacy:* As the LEHD is already in place and housed by the Census, the individual privacy protections are high. The LEHD program links the data and provides it to researchers without a personally identifiable code. The Census Bureau is bound by Title 13 of the United States Code, which provides strong confidentiality protections to individuals and businesses that participate in the program.

*Cost:* Pursuing this option would first require efforts to develop a partnership with the LEHD Program. Simultaneous discussions with state agency representatives would help to identify

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<sup>42</sup> The PSEO are experimental tabulations developed by the LEHD program and data provide earnings and employment outcomes for college and university graduates by degree level, degree major, and post-secondary institution.

agencies that are open to a partnership with the Census and the Department of Labor. Recruiting state agencies to participate would strengthen the case for partnership with the LEHD Program. Agencies and organizations face tight budget constraints, so laying the groundwork to minimize the associated costs for the partnering agencies would increase the likelihood of their participation. The costs of pursuing this option are front-loaded in the exploration phase. Implementing this option would benefit from the data infrastructure already in place, such as Electronic Data Interchange formats and File Transfer Protocols to transfer data, and the security measures and procedures of the Census.

*Timeline:* The timeline to implement this option is the long-term (2+ years). The LEHD is currently fielding the PSEO program and, based on discussions with LEHD personnel, it would not be feasible to pursue a partnership currently because the staff is small and is focusing on the PSEO pilot program.

*Feasibility:* While this option is feasible, there are a number of challenges. The LEHD would have to agree to pursue a pilot program to collect disability-related administrative data. However, a primary concern in partnering with the LEHD is not in the Program's ability or desire to participate, but rather in its available resources. A coordinated effort by the Department of Labor and other agencies to pursue this partnership, perhaps with funding or other resources, may improve the feasibility. The other primary challenge would be in identifying state agencies that house WC, TDI, and PFL administrative claims data who are willing to partner with the Program. The feasibility of these agencies collaborating with LEHD is higher than partnering to create a new, shared database because of the Census' stringent standards for data security and quality. Agencies may be more likely to join because, in some states, the same agencies that house WC, TDI, and PFL administrative data already provide UI wage data to the Census.

## 7. CONCLUSIONS

The data and information contained in this report provide a useful starting point for improving access to aggregate- and individual-level data on social-insurance disability programs. This report provides updated and consolidated historical WC data from the Academy's annual report, *Workers' Compensation: Benefits, Costs, and Coverage*, as well as program characteristics and consolidated data on state TDI and PFL programs from a variety of sources. We also provided information on the timing of legislative changes to state WC programs to serve as a guide for researchers interested in investigating the impact of state WC legislation on program and SAW/RTW outcomes.

To reduce the search costs for researchers interested in acquiring administrative ILD on WC, TDI, and PFL beneficiaries, we identified state agencies that administer and house relevant data. We reported on the feasibility of acquiring administrative ILD in 20 state agencies across the country and provided information on the process for acquiring data in 9 agencies, including information on some of the data elements they collect.

We also evaluated three options for improving access to administrative ILD. The most promising option in the short term is to develop a "blue-print" for researchers to gain access to ILD by collecting and consolidating information on the feasibility and process for acquiring data from specific state agencies. It would be beneficial for future work to continue this blue-print by contacting all of the state agencies to determine the feasibility (or infeasibility) of obtaining data, specific acquisition requirements, and the type of data (including the specific variables) available. In the medium to long term, a promising option is to pursue a partnership with the LEHD. The LEHD is a rich source of linked administrative data that contains relevant information on worker and employer characteristics. This option overcomes many of the shortcomings of pursuing partnerships with specific state agencies and leverages the expertise and data infrastructures already in place.

Both the aggregate data provided in this report and the information for acquiring administrative ILD are most useful if they are made available to the public in an easily accessible format. As a next step, a disability data website that provides program information, data, resources to identify key legislative changes, and a blue-print for researchers interested in obtaining ILD would lower the search costs of acquiring data to conduct research on SAW/RTW topics and serve as a valuable resource for people interested in learning more about disability-related social-insurance programs. One website design option would be to provide information in four categories: 1) General program characteristics and policy information; 2) Downloadable WC, TDI, and PFL program data; 3) "Blue-Print" for researchers to acquire ILD on disability-related topics; and 4) Additional resources.

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# TABLES

**Table 1. Federally-Sponsored Surveys Reviewed in Livermore et al. (2011) for Disability-Related Content**

## National Household Surveys

- |   |   |
|---|---|
| 1. American Community Survey (ACS)                    | 10. National Health and Nutrition Examination Survey (NHANES) |
| 2. American Housing Survey (AHS)                      | 11. National Health Interview Survey (NHIS)                   |
| 3. American Time Use Survey (ATUS)                    | 12. National Household Education Survey (NHES)                |
| 4. Behavioral Risk Factor Surveillance System (BRFSS) | 13. National Survey of Families and Households (NSFH)         |
| 5. Census   | 14. National Survey on Drug Use and Health (NSDUH)            |
| 6. Consumer Expenditure Survey (CE)                   | 15. Panel Study of Income Dynamics (PSID)                     |
| 7. Current Population Survey (CPS)                    | 16. Survey of Consumer Finances (SCF)                         |
| 8. Medical Expenditure Panel Survey (MEPS)            | 17. Survey of Income and Program Participation (SIPP)         |
| 9. National Crime Victimization Survey (NCVS)         |   |

## Surveys on Health, Disability, Aging, and Long-Term Care

- |   |   |
|---|---|
| 1. Health and Retirement Study                | 7. National Health Interview Survey on Disability (NHIS-D)                |
| 2. Longitudinal Study of Aging (LSOA)         | 8. National Long Term Care Survey (NLTCS)                                 |
| 3. Medicare Current Beneficiary Survey (MCBS) | 9. National Nursing Home Survey (NNHS)                                    |
| 4. Medicare Health Outcomes Survey (HOS)      | 10. National Survey of Children with Special Health Care Needs (NS-CSHCN) |
| 5. National Beneficiary Survey (NBS)          | 11. National Survey of SSI Children and Families (NSCF)                   |
| 6. National Comorbidity Survey (NCS)          |   |

## Surveys on Youth, Education, and Transition

- |  |  |
|--|--|
| 1. Baccalaureate and Beyond Longitudinal Study (B&B)         | 6. National Longitudinal Study of Adolescent Health (Add Health) |
| 2. Beginning Postsecondary Students Longitudinal Study (BPS) | 7. National Longitudinal Survey of Youth 1997 (NLSY97)           |
| 3. Early Childhood Longitudinal Survey (ECLS)                | 8. National Longitudinal Transition Study 2 (NLTS2)              |
| 4. High School Longitudinal Study of 2009 (HSLS)             | 9. National Survey of Children's Health (NSCH)                   |
| 5. National Education Longitudinal Study (NELS)              |  |

## Other Surveys

- |  |   |
|--|---|
| 1. National Survey of Veterans (NSV)       | 3. Survey of Inmates in State and Federal Correctional Facilities (SISCF/SIFCF) |
| 2. Survey of Inmates in Local Jails (SILJ) |   |

Source: Livermore et al. (2011).

**Table 2. Workers' Compensation Program Data Sources by State**

State	System Administration			State Fund			Self-Insurance			Other Potential Sources
	Agency	Annual report	Additional information	Fund name	Annual report	Additional information	Agency	Annual report	Additional information	
AL	DOL, WC Division	No		No	–	–	DOL, WC Division	No	N/A	–
AK	AK Dept. of Labor & Workforce, WC Division	<a href="#">Yes</a>	Claims by injury type, benefit type	No	–	–	DOL & Workforce, WC Division	Yes	None	–
AZ	<a href="#">Industrial Commission of Arizona</a>	Yes	Claims by industry, occupation; injury types; injury by cause	No	–	–	<a href="#">Industrial Commission of Arizona</a>	Yes	None	–
AR	WC Commission	Biennial Report	Claims by industry; injury types; gender	No		–	WC Commission	Biennial Report	Claims by insurance type	–
CA	Dept. of Industrial Relations, WC Division	Yes <sup>a</sup>	Claims by industry; occupation; injury types; injury by cause	State Compensation Insurance Fund	Yes	–	Dept. of Industrial Relations, Office of Self-Insurance Plans	Yes	Claims by benefit type	CA Workers' Compensation Insurance Rating Bureau
CO	Dept. of Labor & Employment, WC Division	Yes	–	Pinnacle Assurance	Yes	–	DOL & Employment, WC Division	No	N/A	–
CT	WC Commission	Yes	–	No	–	–	WC Commission	No	N/A	–
DE	DOL, Division of Industrial Affairs, Office of WC	Yes <sup>b</sup>	Claims by occupation; injury types	No State Fund	–	–	DOL, Division of Industrial Affairs, Office of WC	No	N/A	DE Compensation Rating Bureau
DC	Dept. of Employment Services, Office of WC	<a href="#">No<sup>c</sup></a>	–	None	–	–	Dept. of Employment Services, Office of WC	No <sup>c</sup>	–	–
FL	<a href="#">Dept.</a> of Financial Services, WC Division	Yes	Claims by industry; injury types; injury cause	No State Fund	–	–	<a href="#">Dept.</a> of Financial Services, Division of WC	No	–	–
GA	Board of WC	Yes	–	No State Fund	–	–	Board of WC	No	–	–
HI	Dept. of Labor and Industrial Relations, Disability Compensation Division	Yes	Claims by industry; occupation; gender, type of injury, injury cause; age	Hawaii Employers' Mutual Insurance Company	No	–	Dept. of Labor and Industrial Relations, Disability Compensation Division	Yes	Claims by insurance type	–

**Table 2. Workers' Compensation Program Data Sources by State**

State	System Administration			State Fund			Self-Insurance			Other Potential Sources
	Agency	Annual report	Additional information	Fund name	Annual report	Additional information	Agency	Annual report	Additional information	
ID	Industrial Commission	Yes	Claims by geographic area	Idaho State Insurance Fund	No	–	Industrial Commission	No	N/A	–
IL	WC Commission	Yes	Claims by industry, gender, type of injury, injury cause	No State Fund	–	–	WC Commission	No	N/A	–
IN	WC Board	No	–	No State Fund	–	–	WC Board	No	N/A	Indiana Compensation Rating Bureau
IA	Workforce Development Dept., WC Division	Yes	No	No State Fund	–	–	Iowa Insurance Division	Yes	No	–
KS	Dept. of Labor, Division of WC	Yes	Claims by industry; injury type; benefit type	No State Fund	–	–	Dept. of Labor, Division of WC	Dept. of Labor, Division of WC	No	–
KY	Dept. of Workers' Claims	Yes	Claims by industry, injury type, benefit type	Kentucky Employers' Mutual Insurance	No	–	Dept. of Workers' Claims	Dept. of Workers' Claims	No	–
LA	Workforce Commission, Office of WC Administration	Yes	Claims by injury type, injury cause	No State Fund	–	–	Workforce Commission, Office of WC Administration	Yes	No	–
ME	WC Board	Yes	Claims by industry, occupation, benefit type	No State Fund	–	–	Bureau of Insurance	Yes	No	–
MD	WC Commission	Yes	Claims by industry, injury type, benefit type, age, gender	Chesapeake Employers Insurance Company	Yes	No	WC Commission	Yes	No	–
MA	Office of Workforce Development, Dept. of Industrial Accidents	Yes <sup>d</sup>	Claims by industry, occupation	No State Fund	–	–	Dept. of Industrial Accidents, Office of Self Insurance	Yes <sup>d</sup>	No	WC Rating and Inspection Bureau of MA

**Table 2. Workers' Compensation Program Data Sources by State**

State	System Administration			State Fund			Self-Insurance			Other Potential Sources
	Agency	Annual report	Additional information	Fund name	Annual report	Additional information	Agency	Annual report	Additional information	
<b>MI</b>	Dept. of Licensing and Regulatory Affairs, Division of WC	Yes	Claims by benefit type	No State Fund	–	–	Dept. of Licensing and Regulatory Affairs, Division of WC	Yes	Claims by insurance type	Compensation Advisory Organization of Michigan
<b>MN</b>	Dept. of Labor and Industry, WC Division	Yes	Claims by injury type, injury cause, benefit type	No State Fund	–	–	Dept. of Labor and Industry, WC Division	Yes	Claims by insurance type	MN WC Insurers Association
<b>MS</b>	WC Commission	No	–	No State Fund	–	–	WC Commission	No	–	–
<b>MO</b>	Dept. of Labor and Industrial Relations, Division of WC	Yes	Claims by industry, occupation, injury type, benefit type, age, gender	Missouri Employers Mutual Insurance	Yes	No	Dept. of Labor and Industrial Relations, Division of WC	Yes	No	–
<b>MT</b>	Dept. of Labor and Industry, Employment Relations Division	Yes	Claims by industry, injury type, injury cause, benefit type	Montana State Fund	Yes	Claim frequency	Dept. of Labor and Industry, Employment Relations Division	Yes	Claims by insurance type	–
<b>NE</b>	WC Court	Yes	Claims by industry, injury type, injury cause, gender, age	No State Fund	–	–	WC Court	Yes	No	–
<b>NV</b>	WC Section, Division of Industrial Relations	No	–	No State Fund	–	–	Self-Insured WC Section, Division of Insurance	No	–	–
<b>NH</b>	DOL, WC Division	Yes – Biennial	Claims by industry, occupation, injury type, injury cause, benefit type	No State Fund	–	–	DOL, WC Division	Yes – Biennial	Claims by insurance type	–
<b>NJ</b>	DOL, Workforce Development, Division of WC	No	–	No State Fund	–	–	DOL, Workforce Development, Division of WC	No	–	NJ Compensation Rating and Inspection Bureau
<b>NM</b>	WC Administration	Yes	Claims by industry, occupation, injury type, injury cause, gender, age	New Mexico Mutual	No	–	WC Administration	Yes	Claims by insurance type	–
<b>NY</b>	WC Board	Yes	–	NY State Insurance Fund	Yes	–	WC Board	No	–	NY Compensation Insurance Rating Board

**Table 2. Workers' Compensation Program Data Sources by State**

State	System Administration			State Fund			Self-Insurance			Other Potential Sources
	Agency	Annual report	Additional information	Fund name	Annual report	Additional information	Agency	Annual report	Additional information	
NC	Industrial Commission	Yes	No	No State Fund	–	–	Dept. of Insurance	No	No	NC Rate Bureau
ND	Workforce Safety & Insurance	Yes	Claims by industry, occupation, injury type, injury cause, gender, age	Workforce Safety & Insurance	Yes	Claims by industry, occupation, injury type, injury cause, gender, age	No Self Insurance allowed	–	–	–
OH	Bureau of Workers' Compensation	Yes	Claims by industry, injury type, injury cause, benefit type	Bureau of Workers' Compensation	Yes	Claims by industry, injury type, injury cause, benefit type	Bureau of Workers' Compensation	Yes	Claims by insurance type	–
OK	WC Commission	Yes	Claims by industry, occupation, injury type, injury cause, gender, age	No State Fund	–	–	WC Commission	No	No	–
OR	Dept. of Consumer and Business Services, WC Division	Yes	Claims by benefit type	SAIF	Yes	No	Dept. of Consumer and Business Services, WC Division	Yes	Claims by insurance type	–
PA	Dept. of Labor and Industry, Bureau of WC	Yes	Claims by industry, occupation, injury type, injury cause, gender, age	State Workers' Insurance Fund	Yes	Claims by insurance type	Dept. of Labor and Industry, Bureau of WC	Yes	Claims by insurance type	Pennsylvania Compensation Rating Bureau
RI	Dept. of Labor and Training, Division of WC	Yes	Claims by industry, occupation, injury type, injury cause, benefit type, gender, age	Beacon Mutual	Yes	No	Dept. of Labor and Training, Division of WC	Yes	Claims by insurance type	–
SC	WC Commission	Yes	No	No State Fund	–	–	WC Commission	Yes	No	–
SD	DOL and Regulation, Division of Labor and Management, WC Program	Yes	Claims by injury type	No State Fund	–	–	DOL and Regulation, Division of Labor and Management, WC Program	Yes	No	–

**Table 2. Workers' Compensation Program Data Sources by State**

State	System Administration			State Fund			Self-Insurance			Other Potential Sources
	Agency	Annual report	Additional information	Fund name	Annual report	Additional information	Agency	Annual report	Additional information	
<b>TN</b>	DOL & Workforce Development, Bureau of WC	Yes	No	No State Fund	–	–	Dept. of Commerce and Insurance	No	–	–
<b>TX</b>	Dept. of Insurance, Division of WC	Yes	No	Texas Mutual Insurance Company	Yes	No	Dept. of Insurance, Division of WC	Yes	No	–
<b>UT</b>	Labor Commission, Industrial Accidents Division	Yes	No	Workers' Compensation Fund of Utah	Yes	Claims by injury type	Labor Commission, Industrial Accidents Division	Yes	No	–
<b>VT</b>	DOL, WC Division	No	–	No State Fund	–	–	DOL	No	–	–
<b>VA</b>	WC Commission	Yes	Claims by injury type, injury cause	No State Fund	–	–	WC Commission	Yes	No	–
<b>WA</b>	Dept. of Labor & Industries	Yes	Claims by industry, injury type, benefit type, gender	Industrial Insurance Fund	Yes	Claims by industry, injury type, benefit type, gender	Dept. of Labor & Industries	Yes	Coverage of workers by insurance type	–
<b>WV</b>	Offices of the Insurance Commissioner	Yes	Claims by benefit type	No State Fund	–	–	Offices of the Insurance Commissioner	Yes	No	–
<b>WI</b>	Dept. of Workforce Development, WC Division	Yes	Claims by industry, occupation, injury type, injury cause, gender, age	No State Fund	–	–	Dept. of Workforce Development, WC Division	No	No	Wisconsin Compensation Rating Bureau
<b>WY</b>	Dept. of Workforce Services, WC Division	Yes	Claims by industry, type of injury	Dept. of Workforce Services, WC Division	Yes	Claims by industry, type of injury	No Self Insurance allowed	–	–	State Occupational Epidemiology Program

**Table Notes:** DOL = Department of Labor; WC= Workers' Compensation; Claims refer to workers' compensation claims. <sup>a</sup>CA Commission on Health and Safety and Workers' Compensation Annual Report; <sup>b</sup>DE Compensation Rating Bureau Annual Report; <sup>c</sup>DC Department of Employment Services publishes some Workers' Compensation program statistics; <sup>d</sup>MA Workers' Compensation Advisory Council Annual Report.

**Table 3. State Temporary Disability Insurance and Paid Family Leave Program Data Sources**

State	Temporary Disability Insurance			Paid Family Leave		
	Administrative Agency	Annual Report	Additional information	Administrative Agency	Annual Report	Additional information
<b>CA</b>	Employment Development Department, State Disability Insurance Program	Yes	Claims by pregnancy status	Employment Development Department, State Disability Insurance Program	Yes	Claims by type of care provided
<b>DC</b>	Department of Employment Services, Office of Paid Family Leave	No	–	Department of Employment Services, Office of Paid Family Leave	No	–
<b>HI</b>	Department of Labor and Industrial Relations, Disability Compensation Division	No	–	–	–	–
<b>NJ</b>	Department of Labor and Workforce Development	Yes	Claims by injury type, gender, age	Department of Labor and Workforce Development	Yes	Claims by type of care provided, gender, age
<b>NY</b>	Workers' Compensation Board	No	–	Workers' Compensation Board	No	–
<b>RI</b>	Department of Labor and Training	Yes	No	Department of Labor and Training	Yes	Claims by type of care provided
<b>WA</b>	Employment Security Department	No	–	Employment Security Department	No	–

**Table 4. Workers' Compensation Legislation: 2000-2016**

State	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AL	M			M	M	M	M	M	M				M				
AK	HB419	AMA		M	M			HB228		HB104	HB13					See notes	
AZ					M	M	M		HB2195	HB2195				M		M	
AR	M							M	See notes	M		M			M		
CA				SB228	SB 899			M						SB863			
CO			M	SB106	M	M	HB1113	M	M SB241	M	M SB187			M		M	
CT							PA06-84				M		M			PA14-167	
DE									SB1					SB238	HB175	HB175	HB 373
FL		M	M	SB50A	M	M			See notes	HB 903				SB662		M	
GA	HB1184	HB497		SB233		M HB327	See notes	M HB424		M	M	M	M	HB154		HB412	
HI		AMA	M	M		M	M	M			SB695	M			See notes		
ID			AMA				M	M	M			M	M				
IL						P.A.094 -0277		M	M	M		See notes			M	M	
IN	See notes	HB1050	HB1050				HB1307	HB1307	HB1307	HB1307	HB1307			HB1320	HB1320	HB1320	HB1320
IA			See notes		HF2581												
KS		M		M		M		M		See notes	M	HB2134	M	SB187	M	M	
KY	HB992	AMA	M				M		M			M			M		
LA		See notes		HB 301									SB763				
ME	LD762												M	M		M	M
MD			M		See notes	M	M	M	M HB700	M HB700	M HB700	M	M				
MA	M		M		M					M							
MI				M								HB5002					
MN	SF3644								SF3218					SF1234			
MS														M			
MO			AMA			SB1								SB1	SB1		
MT				See notes	M		M	M	M		M	See notes		M		M	

**Table 4. Workers' Compensation Legislation: 2000-2016**

State	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
NE		AMA															
NV	See notes		M	AB168	M AB438	M	M	M	M	See notes	M	M	M	M	M	M	
NH		AMA													SB147		
NJ																	
NM	SB148	See notes		M HB501	M			M	M	M		M				M	
NY				See notes		See notes		A6163	A6163	M	See notes				See notes		
NC												HB709		M		M	
ND				HB1060								See notes		SB2298			
OH							SB7										
OK	M SB1414	AMA	HB1003	HB1003		SB1X	SB1X				HB2650	SB878			SB1062		
OR	SB460	See notes	See notes														
PA															Act 184		
RI	AMA								See notes		See notes		See notes				
SC				R147			M	R163	R163		M						
SD		See notes	M											See notes			
TN			SB277		HB3531	HB3531		M	M	M	M	See notes	M		SB200		See notes
TX				HB2600	M		HB7	M	M	M	M	M				M	
UT				M		M		M		See notes		M	M				
VT			AMA		H632	H632	M	See notes	M								
VA																	
WA												See notes					
WV				SB2013					M	SB537							
WI			SB251				AB1163										
WY										HB54							

Table Notes: A = Assembly Bill; AB = Assembly Bill; AMA = adoption of the American Medical Association Guides to the Evaluation of Permanent Impairment (please see appendix for specific version); HB = House Bill; HF = House File; LD = Legislative Document; M = adoption/change in medical fee schedule; PA = Public Act; R = Ratification; SB = State Bill. For more information on each legislative change, including a link to the relevant text, see the Appendix.

**Table 5. Temporary Disability Insurance Program Characteristics**

	California	District of Columbia	Hawaii	New Jersey	New York	Rhode Island	Washington
<b>Year of first claims paid</b>	1947	2020	1970	1949	1950	1943	2020
<b>Insurance structure</b>	SF, PI, SI	Exclusive SF	PI, SI	SF, PI, SI	SF, PI, SI	Exclusive SF	SF, SI
<b>Work/income requirements</b>	Earned at least \$300 in 12-month base period prior to claim	More than 50% of work time for private-sector employer in DC; earned some income from a covered employer in past 52 weeks	Worked more than 20 hours per week for 14 weeks in past 52 weeks and earned at least \$400 in 52-week period	1) Earned at least \$169 per week for 20 weeks in the 52 weeks before a claim or 2) Earned \$8,500 in the 52 weeks before the claim	Worked at least 4 consecutive weeks for same covered employer	1) Earned \$12,120 in base period; or 2) \$4,040 minimum total base period earnings, with \$2,020 in one base period quarter and total base period wages of at least 1.5 times highest-quarter earnings (base period is either first 4 of the last 5 completed calendar quarters, or last 4 completed calendar quarters)	Worked 820 hours in 4 of last 5 quarters
<b>Self-employed workers</b>	May opt in to coverage	May opt in to coverage if: self-employed work was performed more than 50% of the time in DC AND worker opted into the program AND paid appropriate taxes into the fund	Self-employed workers are not mandated to have coverage	Self-employed workers are not eligible for coverage	May opt in to coverage	Non-incorporated self-employed workers are excluded	May opt in to coverage
<b>Insured events</b>	Unable to work due to a non-work-related illness, injury, or pregnancy	Occurrence of physical or mental illness, injury, or impairment that requires 1) inpatient care or 2) continuing treatment or supervision that causes incapacity for work	Unable to perform regular work due to non-work-related injury or illness and are under the care of a physician	Unable to work due to a non-work-related illness, injury, or pregnancy	Wages lost due to injuries or illnesses that do not arise out of or in the course of employment	Unable to perform customary and regular work duties due to non-work related illness or injury	Occurrence of physical or mental illness, injury, or impairment that requires 1) inpatient care or 2) continuing treatment or supervision that causes incapacity for work
<b>Contributions</b>	Employees (optional employer contributions in voluntary employer plan)	Employers, self-employed workers	Employers and employees share the cost equally up to 1% total (0.5% each); employers pay any costs above that or can elect to pay the employee's entire share	Employers and employees	Employees (optional employer contributions in voluntary employer plan)	Employees	Employers with over 50 employees and employees (employer may elect to pay both portions)

**Table 5. Temporary Disability Insurance Program Characteristics**

	California	District of Columbia	Hawaii	New Jersey	New York	Rhode Island	Washington
<b>Contribution rate (2018)</b>	1.0% (including both TDI and PFL)	0.62% (including both TDI and PFL)	Employers: 0.5%; Employees: 0.5%	Employers: experience-rated between 0.10% and 0.75%; Employees: 0.19%	0.50%	1.1% (including both TDI and PFL)	Employers: 0.1452%; employees: 0.1188% (2019) (55/45 split of 0.264% total, out of TDI- PFL combined total 0.4%)
<b>Contribution base (2018)</b>	\$114,967	All wages	\$53,212	\$33,700	\$6,240	\$69,300	\$128,400 (2018; will rise in 2019)
<b>Wage replacement</b>	Progressive sliding scale between 60 and 70%	90% of wages up to 150% of DC's minimum wage; 50% of wages above that (based on annualized equivalent of DC's minimum wage in highest 4 quarters out of 5 previous quarters divided by 52)	58%	66%	50%	55% (based on 4.62% of total high quarter wages in base year per week)	90% of wages up to 50% of state average weekly wages; 50% of wages above that
<b>Maximum duration</b>	52 weeks	2 weeks	26 weeks	26 weeks	26 weeks	30 weeks	12 weeks (14 weeks for pregnancy-related claims)
<b>Minimum time period between successive claims</b>	12 months	52 weeks	1 year	12 months	52 weeks	1 year	52 weeks
<b>Minimum weekly benefit</b>	\$50	\$0	\$14	\$0	\$20	\$94	\$100
<b>Maximum weekly benefit</b>	\$1,216	\$1,000	\$594	\$637	\$170	\$831	\$1,000
<p>Table Notes: PI = Private Insurance, SF = State Fund, SI = Self-Insurance. Sources for California: Employment Development Department; District of Columbia: Department of Employment Services; Hawaii: Department of Labor; New Jersey: Department of Labor; New York: Workers' Compensation Board; Rhode Island: Department of Labor and Training; Washington: Washington State Legislature.</p>							

**Table 6. Paid Family Leave Program Characteristics**

	California	District of Columbia	New Jersey	New York	Rhode Island	Washington
<b>Year of first claims paid</b>	2004	2020	2009	2018	2014	2020
<b>Insurance structure</b>	SF, PI, SI	Exclusive SF	SF, PI, SI	SF, PI, SI	Exclusive SF	SF, SI
<b>Work/income requirements</b>	Earned at least \$300 in 12-month base period prior to claim (base period is 12 months ending 2 calendar quarters before the claim date)	More than 50% of work time for private-sector employer in DC; earned some income from a covered employer in past 52 weeks	1) Earned at least \$169 per week for 20 weeks in the 52 weeks before a claim or 2) Earned \$8,500 in the 52 weeks before the claim	1) Have worked 26 weeks at more than 20 hours per week; or 2) have worked 175 days at less than 20 hours per week	1) Earned \$12,120 in base period; or 2) \$4,040 minimum total base period earnings, with \$2,020 in one base period quarter and total base period wages of at least 1.5 times highest-quarter earnings (base period is either first 4 of the last 5 completed calendar quarters, or last 4 completed calendar quarters)	Worked 820 hours in 4 of last 5 quarters
<b>Self-employed workers</b>	May opt in to coverage	May opt in to coverage if: self-employed work was performed more than 50% of the time in DC AND worker opted into the program AND paid appropriate taxes into the fund	Self-employed workers are not eligible for coverage	May opt in to coverage	Non-incorporated self-employed workers are excluded	May opt in to coverage
<b>Insured events</b>	1.) Care for a seriously ill or injured family member; or 2.) Bond with a new child entering the family through birth, adoption, or foster care placement	1.) Care for a seriously ill or injured family member; or 2.) Bond with a new child entering the family through birth, adoption, or foster care placement	1.) Care for a seriously ill or injured family member; or 2.) Bond with a new child entering the family through birth, adoption, or foster care placement	1) Care for a seriously ill or injured family member; 2) Bond with a new child entering the family through birth, adoption, or foster care placement; or 3) Qualifying exigency arising out of spouse, domestic partner, child or parent being on active duty (or having been notified of an impending call or order to active duty)	1.) Care for a seriously ill or injured family member; or 2.) Bond with a new child entering the family through birth, adoption, or foster care placement	1) Care for a seriously ill or injured family member; 2) Bond with a new child entering the family through birth, adoption, or foster care placement; or 3) Qualifying exigency arising out of family member being on active duty (or having been notified of an impending call or order to active duty)
<b>Definition of family member</b>	Child, parent, parent-in-law, grandparent, grandchild, sibling, spouse, or registered domestic partner	Child, parent, spouse, domestic partner, grandparent, sibling	Child, spouse, domestic partner, civil union partner, or parent	Child, parent, grandparent, grandchild, spouse, domestic partner	Child, parent, spouse, domestic partner, parent-in-law, or grandparent	Child, grandchild, grandparent, parent, sibling, spouse, domestic partner

**Table 6. Paid Family Leave Program Characteristics**

	California	District of Columbia	New Jersey	New York	Rhode Island	Washington
<b>Contributions</b>	Employees (optional employer contributions for private and self-insurance), self-employed workers (optional)	Employers, self-employed workers (optional)	Employees (optional employer contributions in private and self-insurance)	Employees (optional employer contributions in private and self-insurance), self-employed workers (optional)	Employees	Employees (optional employer contributions)
<b>Contribution rate (2018 unless otherwise noted)</b>	1% (including both TDI and PFL)	0.62% (including both TDI and PFL; beginning in 2019)	0.09%	0.126%	1.1% (including both TDI and PFL)	0.132% (2019) (i.e., 1/3 of TDI and PFL combined total 0.4%)
<b>Contribution base (2018 unless otherwise noted)</b>	\$114,967	All wages	\$33,700	\$67,905	\$69,300	\$128,400 (2018; will rise in 2019)
<b>Wage replacement</b>	Progressive sliding scale between 60 and 70%	90% of wages up to 150% of DC's minimum wage; 50% of wages above that (based on annualized equivalent of DC's minimum wage in highest 4 quarters out of 5 previous quarters divided by 52)	66%	50% of average weekly wage (AWW) up to up to 50% of the State Average Weekly Wage (SAWW); phasing up to 67% of AWW up to 67% of the SAWW in 2021	55% (calculated from 4.62% of wages in high quarter; with 12 weeks in quarter; 1/12=8.33%; 4.62%/8.33%=55%)	90% of wages up to 50% of SAWW; 50% of wages above that
<b>Maximum duration</b>	6 weeks	8 weeks (child bonding); 6 weeks (care for family member)	6 weeks	8 weeks (phasing up to 12 weeks in 2021)	4 weeks	12 weeks
<b>Minimum time period between successive claims</b>	12 months	52 weeks	12 months	52 weeks	1 year	52 weeks
<b>Minimum weekly benefit</b>	\$50	\$0	\$0	\$0	\$94	\$100
<b>Maximum weekly benefit</b>	\$1,216	\$1,000	\$637	\$653	\$831	\$1,000

**Table Notes:** PI = Private Insurance, SF = State Fund, SI = Self-Insurance. Sources for California: Employment Development Department; District of Columbia: Department of Employment Services; New Jersey: Department of Labor; New York: New York State Paid Family Leave; Rhode Island: Department of Labor and Training; Washington: Washington State Legislature.

**Table 7. Feasibility of Obtaining Administrative Individual-Level Data on Workers’ Compensation, Temporary Disability Insurance, and Paid Family Leave Claimants from Select State Agencies**

Agency or Organization	Program Data	Provide or have provided administrative ILD for research purposes?	Possible to link data to other sources?	Source
Alaska Department of Labor, Division of Workers’ Compensation	WC	Yes	No – may be provided to state agencies	Representative
California Department of Industrial Relations, Disability Evaluation Unit	WC (permanent disability ratings)	Yes	Yes	Literature (Reville et al. 2005; Seabury et al. 2012)
California Employment Development Department	TDI, PFL, UI earnings data	Yes	Yes	Literature (Neuhauser et al. 2018; Bana et al. 2017)
California Workers’ Compensation Insurance Rating Bureau	WC	Yes	Yes	Literature (Powell and Seabury 2018)
Hawaii Department of Labor, Disability Compensation Division	WC, TDI	No	No	Representative
Kansas Department of Labor, Division of Workers’ Compensation	WC	Yes	Yes	Representative
Workers’ Compensation Rating and Inspection Bureau of Massachusetts	WC	No	No	Representative
Minnesota Department of Labor and Industry	WC	Yes	Yes	Representative
Montana Department of Labor and Industry	WC	No	No	Representative
New Mexico Workers’ Compensation Administration	WC	Yes	Yes	Literature (Reville et al. 2001a; O’Leary et al. 2012; Seabury et al. 2014)
New York State Workers’ Compensation Board	WC, TDI, PFL	Yes (WC)	NA	Website
New York Workers’ Compensation Rating Bureau	WC	No	No	Representative
Ohio Bureau of Workers’ Compensation	WC	Yes	NA	Representative
Oregon Department of Consumer and Business Services	WC	Yes	Yes	Representative
Rhode Island Department of Labor and Training	WC, TDI, PFL	Yes	No PII will be provided	Representative
Tennessee Department of Labor and Workforce Development	WC	Yes	No – may be provided to state agencies	Representative
Texas Department of Insurance	WC	Yes	NA	Literature (Dillender 2015)
Washington Department of Labor and Industries	WC	Yes	Yes	Representative
Wisconsin Department of Workforce Development, Division of Workers’ Compensation	WC	Yes	Yes	Representative
Wyoming Department of Workforce Services	WC	No	No	Representative

**Table Notes:** WC = Workers’ Compensation, TDI = Temporary Disability Insurance, PFL = Paid Family Leave, NA = Not Available, PII = Personally Identifiable Information. When the source is “Representative,” that means the information came from direct communications with an agency or organization representative, when the source is “Literature,” that means the information is based on a published study that used the relevant administrative data. The information in this Table should be viewed as guidelines and not definitive in all cases due to variation in agency and organization processes for handling requests for administrative ILD.

**Table 8. Administrative Data Elements Available in Select Workers' Compensation Agencies**

	Kansas	Ohio	Oregon	Tennessee	Wisconsin
Gender	X		X	X	X
Age	X	X	X	X	X
Marital status	X	X		X	
Pre-injury wage		X	X	X	X
Occupation		X	X	X	
Claimant zip-code	X	X	X <sup>b</sup>	X	X
Employer size		X	X <sup>c</sup>		
Employer industry	X	X	X	X	
Employer location (zip-code, county, region)	X	X	X	X	X
Insurer type (private, self-insured, state fund)		X	X	X	X
Date of injury	X	X	X <sup>d</sup>	X	X
Type of injury (ICD-9 or other injury code/classification)	X <sup>a</sup>	X	X	X	X
Claim type (medical only, indemnity)	X	X	X <sup>e</sup>	X	X <sup>h</sup>
TTD benefits paid	X	X	X	X	X
TTD weekly rate	X	X	X	X	X
TPD benefits paid	X	X	X	X	X
TPD weekly rate	X	X	X	X	X
PPD benefits paid	X	X	X	X	X
PPD disability % (if applicable)	X	X		X	X
PTD benefits paid	X	X	X	X	X
Total indemnity benefits paid	X	X	X	X	X
Total medical benefits paid	X	X	X	X	
Total benefits paid	X	X	X	X	X
Lump-sum payment	X	X		X	X
Attorney involvement	X	X		X <sup>f</sup>	X
Return to work date	X	X		X	X
Return to work wage				X <sup>g</sup>	
Medical treatments		X			
Vocational rehabilitation	X	X			X

**Table Notes:** An “X” indicates that the data are collected. a) IAIABC injury severity type code with two categories: major/minor; b) In database but may be confidential depending on request; c) range only – exact size confidential; d) month and year are available, exact date is confidential; e) accepted non-disabling claims are not reported; f) data indicate attorney involvement and attorney fees; g) data are limited to an ordinal scale; h) only claims involving more than 3 lost days and fatalities are required to be reported. TTD = Total Temporary Disability, TPD = Temporary Partial Disability, PPD = Permanent Partial Disability, PTD = Permanent Total Disability. This information was provided by the state agencies listed: Kansas Department of Labor, Ohio Bureau of Workers’ Compensation, Oregon Department of Consumer and Business Services, Tennessee Department of Labor and Workforce Development, and Wisconsin Department of Workforce Development. Rhode Island’s Department of Labor and Training provided information on administrative data elements available in its Temporary Disability Insurance and Temporary Caregiver Insurance programs, which includes: gender, age, pre-injury wage, claimant zip-code, employer industry, claim begin and end date, type of injury, claim type, weeks of benefits paid, weekly benefit amount, and return to work date or status.

# APPENDIX

Sources for Table 4: “Workers’ Compensation Legislation, 2000-2016.” Throughout this appendix, “NCCI” refers to National Council on Compensation Insurance, 2016, *Annual Statistical Bulletin*.

## Alabama

2000, 2003-2008, 2012: NCCI

## Alaska

2000: Alaska Legislature, 21st Legislature (1999-2000), HB 419,

<http://www.akleg.gov/basis/Bill/Detail/21?Root=HB%20419>.

2001: Alaska Department of Labor and Workforce Development, 2001, “Alaska Workers’ Comp Board Adopts New AMA Guide,” News Release, <http://labor.alaska.gov/news/2001/news01-29.htm>.

2003-2004: NCCI

2007: Alaska Legislature, 25th Legislature (2007-2008), HB 228,

<https://www.akleg.gov/basis/Bill/Detail/25?Root=HB%20228>.

2009: Alaska Legislature, 26th Legislature (2009-2010), HB 104,

<http://www.akleg.gov/basis/Bill/Detail/26?Root=HB%20104>.

2010: Alaska Legislature, 27th Legislature (2011-2012), HB 13,

<http://www.legis.state.ak.us/basis/Bill/Detail/27?Root=HB%20%2013>.

2015: Alaska Legislature, 28th Legislature (2013-2014), HB 316,

<http://www.akleg.gov/basis/Bill/Detail/28?Root=HB%20316>; Alaska Legislature, 29th Legislature (2015-2016), HB 178, <http://www.akleg.gov/basis/Bill/Detail/29?Root=HB%20178>.

## Arizona

2004-2006: NCCI. Direct documentation of the medical fee changes is no longer electronically available. Later years are available at Industrial Commission of Arizona, n.d., “Arizona Physician’s and Pharmaceutical Fee Schedules,” Medical Resource Office, Arizona Physicians’ & Pharmaceutical Fee Schedule - Year Selector, <https://www.azica.gov/arizona-physicians-fee-schedule-year-selector>.

2008: Arizona House of Representatives, 48th Legislature (2007-2008), HB 2195,

<https://apps.azleg.gov/BillStatus/GetDocumentPdf/150629>.

2009: Continued implementation of Arizona House of Representatives, 48th Legislature (2007-2008), HB 2195,

<https://apps.azleg.gov/BillStatus/GetDocumentPdf/150629>.

2013, 2015: NCCI

## Arkansas

2000: Arkansas Workers’ Compensation Commission, 2000, “Medical Fee Schedule: For Services Rendered Under the Arkansas Workers’ Compensation Laws,”

<http://www.awcc.state.ar.us/rule30misc/newmedfeesch.html>.

2007: NCCI

2008: NCCI; Arkansas General Assembly, 86th General Assembly (2007-2008), HB 2648,

<ftp://www.arkleg.state.ar.us/acts/2007/public/ACT1599.pdf>; Arkansas General Assembly, 86th General Assembly (2007-2008), HB 2674, <ftp://www.arkleg.state.ar.us/acts/2007/public/ACT1415.pdf>.

2009, 2011, 2014: NCCI

## California

NCCI is not the rating bureau for California. Therefore, NCCI does not register all of the legislative changes made in the state as causing premium or benefit level changes.

- 2003: California Department of Industrial Relations, 2007, "2003 workers' compensation reform," (SB 228), <https://www.dir.ca.gov/dwc/reform03.htm>.
- 2004: California Department of Industrial Relations, 2014, "Workers' Compensation Reforms," Reforms of 2004, (SB 899), <https://www.dir.ca.gov/chswc/WCReformsPage1.htm>.
- 2007: NCCI
- 2013: California Department of Industrial Relations, 2017, "Workers' Comp Reform: Senate Bill 863," <https://www.dir.ca.gov/dwc/SB863/SB863.htm>. Senate Bill 863 passed on August 1, 2012, but its provisions took effect starting on January 1, 2013.

#### **Colorado**

- 2002: NCCI
- 2003: Colorado General Assembly, 2003 Legislative Session, SB 106, <http://www.leg.state.co.us/2003a/inetcbill.nsf/fsbillcont/94535C415AFE715C87256C91004C93D1?Open&target=/2003a/inetcbill.nsf/billsummary/177FF0302D2747C487256C8B006D2369>.
- 2004: NCCI
- 2005: NCCI
- 2006: Colorado General Assembly, 2005 Legislative Session, SB 1113, [http://www.leg.state.co.us/CLICS/2005A/csl.nsf/fsbillcont3/7EEBC9412FD5D7A287256F5D006277AD?Open&file=1113\\_enr.pdf](http://www.leg.state.co.us/CLICS/2005A/csl.nsf/fsbillcont3/7EEBC9412FD5D7A287256F5D006277AD?Open&file=1113_enr.pdf).
- 2007: NCCI
- 2008: NCCI; Colorado General Assembly, 2008 Legislative Session, SB 241, [http://www.leg.state.co.us/CLICS/CLICS2008A/csl.nsf/fsbillcont3/42E9CD8C7DC76F8F8725742C007B9726?Open&file=241\\_enr.pdf](http://www.leg.state.co.us/CLICS/CLICS2008A/csl.nsf/fsbillcont3/42E9CD8C7DC76F8F8725742C007B9726?Open&file=241_enr.pdf).
- 2009: NCCI
- 2010: NCCI; Colorado General Assembly, 2008 Legislative Session, SB 187, [http://www.leg.state.co.us/CLICS/CLICS2010A/csl.nsf/fsbillcont3/8D554A20FBEACD69872576CD005881FE?Open&file=187\\_enr.pdf](http://www.leg.state.co.us/CLICS/CLICS2010A/csl.nsf/fsbillcont3/8D554A20FBEACD69872576CD005881FE?Open&file=187_enr.pdf) (this legislation was not a factor in NCCI's registered benefit change for the year).
- 2013, 2015: NCCI

#### **Connecticut**

- 2006: Connecticut Colorado General Assembly, 2006 Legislative Session, Public Act No. 06-84, <https://www.cga.ct.gov/2006/ACT/PA/2006PA-00084-R00SB-00025-PA.htm>.
- 2015: Connecticut Colorado General Assembly, 2014 Legislative Session, Public Act No. 14-167, <https://www.cga.ct.gov/2014/ACT/pa/pdf/2014PA-00167-R00SB-00061-PA.pdf>. This change, enacted in 2014 and effective in 2015, implemented a Workers' Compensation fee schedule in the state.

#### **Delaware**

- 2008: Delaware General Assembly, 144th General Assembly (2007 - 2008), SB1, <https://legis.delaware.gov/BillDetail?LegislationId=18082>. The legislation was passed in 2007, but NCCI registered a benefit change as a result of it in 2008.
- 2013: Delaware General Assembly, 146th General Assembly (2011 - 2012), SB 238, <https://legis.delaware.gov/BillDetail?legislationId=20961>. Passed in 2012; change registered by NCCI in 2013.
- 2014: Delaware General Assembly, 147th General Assembly (2013 - 2014), HB175, <https://legis.delaware.gov/BillDetail/23022>. Passed in 2013; change registered by NCCI in 2013, 2014, and 2015.
- 2016: Delaware General Assembly, 147th General Assembly (2013 - 2014), HB 373, <https://legis.delaware.gov/BillDetail/23182>. Passed in 2014; change registered by NCCI in 2016.

## Florida

2001-2002: NCCI

2003: Florida Department of Financial Services, 2003, "Senate Bill 50A: 2003 Workers' Compensation Reform Act Summary," <https://www.myfloridacfo.com/division/wc/pdf/SB50Asum.pdf>.

2004-2005: NCCI

2008: *Emma Murray v. Mariner Health and ACE USA*, Supreme Court of Florida, SC07-244 (2008).

2009: Florida House of Representatives, Regular Session 2009, HB 903,

<http://www.myfloridahouse.gov/Sections/Bills/billsdetail.aspx?BillId=41011&SessionId=61>.

2013: Florida Senate, Regular Session 2013, SB 662, <https://www.flsenate.gov/Session/Bill/2013/0662>.

2015: NCCI

## Georgia

2000: Georgia House of Representatives, 1999-2000 Session, HB 1184,

<http://www.legis.ga.gov/Legislation/Archives/19992000/leg/fulltext/hb1184.htm>.

2001: Georgia General Assembly, 2001-2002 Regular Session, HB 497, <http://www.legis.ga.gov/Legislation/en-US/display/20012002/HB/497>.

2003: Georgia General Assembly, 2003-2004 Regular Session, SB 233, <http://www.legis.ga.gov/Legislation/en-US/display/20032004/SB/233>.

2005: NCCI; Georgia General Assembly, 2005-2006 Regular Session, HB 327,

<http://www.legis.ga.gov/Legislation/en-US/display/20052006/HB/327>.

2006: NCCI; Georgia General Assembly, 2005-2006 Regular Session, HB 200,

<http://www.legis.ga.gov/Legislation/en-US/display/20052006/HB/200>; Georgia General Assembly, 2005-2006 Regular Session, HB 1240, <http://www.legis.ga.gov/Legislation/en-US/display/20052006/HB/1240>.

The premium increase associated with HB 1240 was registered in 2007.

2007: Georgia General Assembly, 2007-2008 Regular Session, HB 424, <http://www.legis.ga.gov/Legislation/en-US/display/20072008/HB/424>.

2009-2012: NCCI

2013: Georgia General Assembly, 2013-2014 Regular Session, HB 154, <http://www.legis.ga.gov/Legislation/en-US/display/20132014/HB/154>.

2015: Georgia General Assembly, 2015-2016 Regular Session, HB 412, <http://www.legis.ga.gov/Legislation/en-US/display/20152016/HB/412>.

## Hawaii

2001-2003, 2005-2006: NCCI

2007: NCCI; Dean Sugano, "Workers' Compensation Fee Schedules, Maximum Allowable Fees, and Comparative Reimbursements," Legislative Reference Bureau, Hawaii State Capitol,

<http://lrbhawaii.org/reports/legrpts/lrb/rpts07/workcomp.pdf>.

2010: Hawaii State Legislature, 25<sup>th</sup> Legislature (2009 Regular Session), SB 695,

[https://www.capitol.hawaii.gov/session2009/bills/SB695\\_.HTM](https://www.capitol.hawaii.gov/session2009/bills/SB695_.HTM).

2011: NCCI

2014: NCCI; Hawaii State Legislature, 27<sup>th</sup> Legislature (2014 Regular Session), SB 2365,

[https://www.capitol.hawaii.gov/session2014/bills/SB2365\\_.HTM](https://www.capitol.hawaii.gov/session2014/bills/SB2365_.HTM).

## Idaho

2002, 2006-2008, 2011-2012: NCCI

## Illinois

2005: Illinois General Assembly, 94<sup>th</sup> General Assembly (2005-2006), Public Act 094-0277,

<http://www.ilga.gov/legislation/publicacts/fulltext.asp?Name=094-0277>.

2007-2009: NCCI. Also see Illinois Workers' Compensation Commission, n.d., "History of fee schedule developments," <https://www2.illinois.gov/sites/iwcc/Pages/fsh.aspx>.

- 2011: Illinois General Assembly, 97th General Assembly (2011-2012), Public Act 097-0018, <http://www.ilga.gov/legislation/publicacts/97/097-0018.htm>.
- 2014: Illinois Workers' Compensation Commission, n.d., "History of fee schedule developments," <https://www2.illinois.gov/sites/iwcc/Pages/fsh.aspx>.
- 2015: NCCI

#### **Indiana**

- 2000: Indiana General Assembly, 111th General Assembly (2000), SB12, [http://www.in.gov/apps/lisa/session/billwatch/billinfo?year=2000&session=1&request=getBill&docno=12#latest\\_info](http://www.in.gov/apps/lisa/session/billwatch/billinfo?year=2000&session=1&request=getBill&docno=12#latest_info); Indiana General Assembly, 111th General Assembly (2000), HB 1050, <http://www.in.gov/apps/lisa/session/billwatch/billinfo?year=2000&session=1&request=getBill&docno=1050>. HB 1050 was passed in 2000, but NCCI registered benefit changes as a result of it in 2000, 2001, and 2002.
- 2006: Indiana General Assembly, 114th General Assembly (2006), HB 1307, <http://www.in.gov/apps/lisa/session/billwatch/billinfo?year=2006&session=1&request=getBill&docno=1307>. HB 1307 was passed in 2006, but NCCI registered benefit changes as a result of it in all years from 2006 to 2010.
- 2013: Indiana General Assembly, 118th General Assembly (2013), HB 1320, <http://www.in.gov/apps/lisa/session/billwatch/billinfo?year=2013&session=1&request=getBill&docno=1320>. HB 1320 was passed in 2013, but NCCI registered benefit changes as a result of it in all years from 2013 to 2016.

#### **Iowa**

- 2002: NCCI; *Venegas v. IBP, Inc*, Supreme Court of Iowa, No. 00-0151 (2002).
- 2004: Iowa Legislature, 80<sup>th</sup> Legislature (2003-2005), HF [House File] 2581, <https://www.legis.iowa.gov/legislation/BillBook?ba=HF%202581&ga=80>.

#### **Kansas**

- 2001, 2003, 205, 2007; NCCI
- 2009: *Bergstrom v. Spears*, Supreme Court of Kansas, No. 99,369 (2009), <http://www.kscourts.org/Cases-and-Opinions/opinions/supct/2009/20090904/99369.htm>.
- 2010: NCCI
- 2011: Kansas Legislature, 2011-2012 Legislative Session, HB 2134, [http://www.kslegislature.org/li\\_2012/b2011\\_12/measures/hb2134/](http://www.kslegislature.org/li_2012/b2011_12/measures/hb2134/).
- 2012: NCCI
- 2013: Kansas Legislature, 2013-2014 Legislative Session, SB 187, [http://www.kslegislature.org/li\\_2014/b2013\\_14/measures/sb187/](http://www.kslegislature.org/li_2014/b2013_14/measures/sb187/). SB 187 adopted the AMA Guides, 6<sup>th</sup> Edition, effective in 2015.
- 2014-2015: NCCI

#### **Kentucky**

- 2000: Kentucky Legislature, 2000 Regular Session, HB 992, <http://www.lrc.ky.gov/research/00rs/HB992.htm>.
- 2001-2002, 2006, 2008, 2011: NCCI
- 2014: NCCI; Administrative Register of Kentucky, Volume 40, Number 8 (February 1, 2014), [http://www.lrc.ky.gov/kar/contents/registers/40Ky\\_R\\_2013-14/08\\_Feb.pdf](http://www.lrc.ky.gov/kar/contents/registers/40Ky_R_2013-14/08_Feb.pdf).

#### **Louisiana**

- 2001: NCCI notes that the adoption of the AMA Guides occurred; additional changes: Louisiana Legislature, 2001 Regular Session, HB 419, <https://www.legis.la.gov/legis/BillInfo.aspx?s=01RS&b=HB419&sbi=y>; *ibid.*, HB 435, <https://www.legis.la.gov/legis/BillInfo.aspx?s=01RS&b=HB435&sbi=y>.

2003: Louisiana Legislature, 2003 Regular Session, HB 301,  
<https://www.legis.la.gov/legis/BillInfo.aspx?s=03RS&b=HB301&sbi=y>.

2012: Louisiana Legislature, 2012 Regular Session, SB 763,  
<https://www.legis.la.gov/legis/BillInfo.aspx?s=12RS&b=SB763&sbi=y>.

#### **Maine**

2000: Maine Legislature, 119th Legislature (1998-2000), LD 762,  
<http://lldc.mainelegislature.org/Open/Meta/LegHist/119/lh119-LD-0762.pdf>.

2012, 2013, 2015, 2016: NCCI

2013: Maine Workers' Compensation Board, 2013, Medical Fee Schedule,  
[http://www.maine.gov/wcb/Departments/omrs/medfeesched/2013\\_Medical\\_Fee\\_Schedule.pdf](http://www.maine.gov/wcb/Departments/omrs/medfeesched/2013_Medical_Fee_Schedule.pdf).

#### **Maryland**

2002: NCCI

2004: NCCI; *Harris v. Board of Education of Howard County*, Court of Appeals of Maryland (2003).

2008: NCCI; Maryland Workers' Compensation Commission, Fee Guide Information,  
[http://www.wcc.state.md.us/MFG/Medical\\_Fee\\_Schedule.html](http://www.wcc.state.md.us/MFG/Medical_Fee_Schedule.html); Maryland General Assembly, 2008  
Regular Session, HB 700, <http://mlis.state.md.us/2008rs/billfile/hb0700.htm>.

2009-2010: Portions of HB 700 from 2008 affected benefits and premiums in these years, according to NCCI.

2011-2012: NCCI

#### **Massachusetts**

2000, 2002, 2004, 2009: NCCI

#### **Michigan**

2003: NCCI

2011: Michigan Legislature, 2011-2012 Legislative Session, HB 5002,  
[http://www.legislature.mi.gov/\(S\(4z512dim0ektr3xgpcnioim0\)\)/mileg.aspx?page=GetObject&objectname=2011-HB-5002](http://www.legislature.mi.gov/(S(4z512dim0ektr3xgpcnioim0))/mileg.aspx?page=GetObject&objectname=2011-HB-5002).

#### **Minnesota**

2000: Minnesota Legislature, 81st Legislature (1999 - 2000), SF 3644,  
<https://www.revisor.mn.gov/bills/bill.php?b=Senate&f=SF3644&ssn=0&y=2000>.

2008: Minnesota Legislature, 85th Legislature (2007 - 2008), SF 3218,  
<https://www.revisor.mn.gov/bills/bill.php?b=senate&f=Sf3218&ssn=0&y=2008>.

2013: Minnesota Legislature, 88th Legislature (2013 - 2014), SF 1234,  
<https://www.revisor.mn.gov/bills/bill.php?f=SF1234&y=2013&ssn=0&b=senate>.

#### **Mississippi**

2013: NCCI

#### **Missouri**

2002: NCCI

2005: Missouri General Assembly, 2005 Session, SB 1,  
[http://senate.mo.gov/05info/BTS\\_Web/Bill.aspx?SessionType=R&BillID=126](http://senate.mo.gov/05info/BTS_Web/Bill.aspx?SessionType=R&BillID=126).

2014: Missouri General Assembly, 2013 Session, SB 1,  
[http://senate.mo.gov/13info/BTS\\_Web/Bill.aspx?SessionType=R&BillID=16944728](http://senate.mo.gov/13info/BTS_Web/Bill.aspx?SessionType=R&BillID=16944728).

## Montana

2003: There were 5 relevant changes in this year.

1. A medical fee schedule change (NCCI);
2. HB 164 (Montana Legislature, 2003 Regular Session, HB 164, [http://laws.leg.mt.gov/legprd/LAW0203W\\$BSRV.ActionQuery?P\\_SESS=20031&P\\_BLTP\\_BILL\\_TYP\\_CD=HB&P\\_BILL\\_NO=164&P\\_BILL\\_DFT\\_NO=&P\\_CHPT\\_NO=&Z\\_ACTION=Find&P\\_ENTY\\_ID\\_SEQ=&P\\_SBJT\\_SBJ\\_CD=&P\\_ENTY\\_ID\\_SEQ=](http://laws.leg.mt.gov/legprd/LAW0203W$BSRV.ActionQuery?P_SESS=20031&P_BLTP_BILL_TYP_CD=HB&P_BILL_NO=164&P_BILL_DFT_NO=&P_CHPT_NO=&Z_ACTION=Find&P_ENTY_ID_SEQ=&P_SBJT_SBJ_CD=&P_ENTY_ID_SEQ=)
3. SB 282 (Montana Legislature, 2003 Regular Session, SB 282, [http://laws.leg.mt.gov/legprd/LAW0203W\\$BSRV.ActionQuery?P\\_SESS=20031&P\\_BLTP\\_BILL\\_TYP\\_CD=SB&P\\_BILL\\_NO=282&P\\_BILL\\_DFT\\_NO=&P\\_CHPT\\_NO=&Z\\_ACTION=Find&P\\_ENTY\\_ID\\_SEQ=&P\\_SBJT\\_SBJ\\_CD=&P\\_ENTY\\_ID\\_SEQ=](http://laws.leg.mt.gov/legprd/LAW0203W$BSRV.ActionQuery?P_SESS=20031&P_BLTP_BILL_TYP_CD=SB&P_BILL_NO=282&P_BILL_DFT_NO=&P_CHPT_NO=&Z_ACTION=Find&P_ENTY_ID_SEQ=&P_SBJT_SBJ_CD=&P_ENTY_ID_SEQ=)
4. SB 450 (Montana Legislature, 2003 Regular Session, SB 450, [http://laws.leg.mt.gov/legprd/LAW0203W\\$BSRV.ActionQuery?P\\_SESS=20031&P\\_BLTP\\_BILL\\_TYP\\_CD=SB&P\\_BILL\\_NO=450&P\\_BILL\\_DFT\\_NO=&P\\_CHPT\\_NO=&Z\\_ACTION=Find&P\\_ENTY\\_ID\\_SEQ=&P\\_SBJT\\_SBJ\\_CD=&P\\_ENTY\\_ID\\_SEQ=](http://laws.leg.mt.gov/legprd/LAW0203W$BSRV.ActionQuery?P_SESS=20031&P_BLTP_BILL_TYP_CD=SB&P_BILL_NO=450&P_BILL_DFT_NO=&P_CHPT_NO=&Z_ACTION=Find&P_ENTY_ID_SEQ=&P_SBJT_SBJ_CD=&P_ENTY_ID_SEQ=))
5. A Montana Supreme Court case, *Stavenjord v. State Compensation Fund* (Supreme Court of Montana, No. 01-630 (2003), <https://caselaw.findlaw.com/mt-supreme-court/1436775.html>).

2004, 2006-2008, 2010: NCCI

2011: In this year, there was a medical fee schedule change (see NCCI and Montana Department of Labor and Industry, [various dates], "Archive Fee Schedule, <http://erd.dli.mt.gov/work-comp-claims/medical-regulations/archive-fee-schedule>); and a legislative change (Montana Legislature, 2011 Regular Session, HB 334, [http://laws.leg.mt.gov/legprd/LAW0203W\\$BSRV.ActionQuery?P\\_SESS=20111&P\\_BLTP\\_BILL\\_TYP\\_CD=HB&P\\_BILL\\_NO=334&P\\_BILL\\_DFT\\_NO=&P\\_CHPT\\_NO=&Z\\_ACTION=Find&P\\_ENTY\\_ID\\_SEQ2=&P\\_SBJT\\_SBJ\\_CD=&P\\_ENTY\\_ID\\_SEQ=](http://laws.leg.mt.gov/legprd/LAW0203W$BSRV.ActionQuery?P_SESS=20111&P_BLTP_BILL_TYP_CD=HB&P_BILL_NO=334&P_BILL_DFT_NO=&P_CHPT_NO=&Z_ACTION=Find&P_ENTY_ID_SEQ2=&P_SBJT_SBJ_CD=&P_ENTY_ID_SEQ=)

2013, 2015: NCCI

## Nebraska

2001: NCCI notes that the state adopted the AMA Guides in this year.

## Nevada

2000: Although the following bill was passed in 1999, its change on benefits and premiums was registered in 2000: Nevada Legislature, 70<sup>th</sup> Session (1999), SB 37, <https://www.leg.state.nv.us/Division/Research/Library/LegHistory/LHs/1999/SB037,1999pt1.pdf>; <https://www.leg.state.nv.us/Division/Research/Library/LegHistory/LHs/1999/SB037,1999pt2.pdf>.

2002: NCCI

2003: Nevada Legislature, 72<sup>nd</sup> Session (2003), AB 168, <https://www.leg.state.nv.us/Division/Research/Library/LegHistory/LHs/2003/AB168,2003.pdf>.

2004: A medical fee schedule change was noted by NCCI in this year. Also, a legislative change from 2003 affected benefits in this year: Nevada Legislature, 72<sup>nd</sup> Session (2003), AB 438, <https://www.leg.state.nv.us/Session/72nd2003/Reports/history.cfm?ID=913>.

2005-2008: NCCI

2009: A medical fee schedule change was noted by NCCI in this year. Also, there were two legislative changes:

1. Nevada Legislature, 75<sup>th</sup> Session (2009), SB 363, <https://www.leg.state.nv.us/Session/75th2009/Reports/history.cfm?ID=999>;
2. Ibid., SB 195, <https://www.leg.state.nv.us/Session/75th2009/Reports/history.cfm?ID=547>.

2010-2015: NCCI

### **New Hampshire**

2001: NCCI notes that the state adopted the AMA Guides in this year.

2014: New Hampshire General Court, 2013 Regular Session, SB 147,  
<https://legiscan.com/NH/text/SB147/id/713275>.

### **New Mexico**

2000: New Mexico Legislature, 1999 Regular Session, SB 148,

<https://www.nmlegis.gov/Legislation/Legislation?Chamber=S&LegType=B&LegNo=148&year=99>.

2001: NCCI notes that the state adopted the AMA Guides in this year. There was also a legislative change: New Mexico Legislature, 2001 Regular Session, SB 234,

<https://www.nmlegis.gov/Legislation/Legislation?Chamber=S&LegType=B&LegNo=234&year=01>.

2003: NCCI noted a medical fee schedule change for this year. There was also a legislative change: New Mexico Legislature, 2003 Regular Session, HB 501,

<https://www.nmlegis.gov/Legislation/Legislation?Chamber=H&LegType=B&LegNo=501&year=03>.

2004, 2007-2009, 2011, 2015: NCCI

### **New York**

2003: According to NCCI, foreign terrorism was excluded from manual rates in this year, which affected premium rates.

2005: According to NCCI, domestic terrorism and WC Security Fund loadings were removed and replaced by stand-alone charges, which affected premiums.

2007: New York State Assembly, 2007-2008 Session, A 6163,

[http://assembly.state.ny.us/leg/?default\\_fld=&leg\\_video=&bn=A06163&term=2007&Summary=Y&Actions=Y&Memo=Y](http://assembly.state.ny.us/leg/?default_fld=&leg_video=&bn=A06163&term=2007&Summary=Y&Actions=Y&Memo=Y).

2008: Some changes made in A 6163 (2007) were registered by NCCI in both 2007 and 2008.

2009: NCCI

2010: Changes to the medical fee schedule were made in this year (NCCI). Also, the state adopted medical treatment guidelines, which affected benefit levels (see New York State Workers' Compensation Board, n.d., "Medical Treatment Guidelines: Overview,"

<http://www.wcb.ny.gov/content/main/hcpp/MedicalTreatmentGuidelines/MTGOverview.jsp>).

2014: NCCI indicates that the closing of the Reopened Case Fund affected benefit levels in this year.

### **North Carolina**

2011: North Carolina General Assembly, 2011 Session, HB 709,

<https://www.ncleg.net/Applications/BillLookup/LoadBillDocument.aspx?SessionCode=2011&DocNum=723&SeqNum=0>.

2013, 2015: NCCI

### **North Dakota**

2003: North Dakota Legislative Branch, 58<sup>th</sup> Legislative Assembly (2003-2004), HB 1060,

<http://legis.nd.gov/assembly/58-2003/session-laws/documents/WRKRS.pdf#CHAPTER562>.

2009: There were two legislative changes in this year:

1. North Dakota Legislative Branch, 61<sup>st</sup> Legislative Assembly (2009-2010), SB 363,

<https://www.leg.state.nv.us/Session/75th2009/Reports/history.cfm?ID=999>;

2. Ibid., SB 195, <https://www.leg.state.nv.us/Session/75th2009/Reports/history.cfm?ID=547>.

2013: North Dakota Legislative Branch, 63<sup>rd</sup> Legislative Assembly (2013-2014), SB 2298,

<http://legis.nd.gov/assembly/63-2013/session-laws/documents/WRKRS.pdf#CHAPTER504>.

### **Ohio**

2006: Ohio General Assembly, 126<sup>th</sup> General Assembly, SB 7,

[http://archives.legislature.state.oh.us/bills.cfm?ID=126\\_SB\\_7](http://archives.legislature.state.oh.us/bills.cfm?ID=126_SB_7).

## Oklahoma

- 2000: NCCI noted a medical fee change in this year. Also, there was a legislative change: Oklahoma Legislature, 1999-2000 Regular Session, SB 1414, <http://www.oklegislature.gov/BillInfo.aspx?Bill=sb1414&Session=0000>.
- 2001: Oklahoma adopted the AMA Guides in this year (85 Okla. Stat. tit. 85 § 3, para. 19).
- 2002: NCCI registered effect of this legislative in both 2002 and 2003: Oklahoma Legislature, 2001-2002 Regular Session, HB 1003, <http://www.oklegislature.gov/BillInfo.aspx?Bill=hb1003&Session=0200>.
- 2003: See 2002 legislative change.
- 2005: Oklahoma Legislature, 2005 Special Session, SB 1, <http://www.oklegislature.gov/BillInfo.aspx?Bill=sb1&Session=051X>.
- 2006: See 2005 legislative change.
- 2010: Oklahoma Legislature, 2009-2010 Regular Session, HB 2650, <http://www.oklegislature.gov/BillInfo.aspx?Bill=hb2650&Session=1000>.
- 2011: See 2010 legislative change.
- 2014: Oklahoma Legislature, 2013-2014 Regular Session, SB 1062, <http://www.oklegislature.gov/BillInfo.aspx?Bill=SB1062&Session=1400>.

## Oregon

- 2000: Oregon Legislature, 70<sup>th</sup> Legislative Assembly (1999), SB 460, [https://www.oregonlegislature.gov/bills\\_laws/archivebills/1999\\_sb0460.en.html](https://www.oregonlegislature.gov/bills_laws/archivebills/1999_sb0460.en.html).
- 2001: NCCI registered part of the effects of SB 460 (2000) in this year. Also, there was a Supreme Court case that affected benefits and premiums: *Smother's v. Gresham Transfer Inc.*, Supreme Court of Oregon (2001), <https://caselaw.findlaw.com/or-supreme-court/1364678.html>.
- 2002: NCCI notes that employers' liability limits were raised in this year to \$500,000. Also, there was a legislative change: Oregon Legislature, 71<sup>st</sup> Legislative Assembly (2001), SB 485, [https://www.oregonlegislature.gov/bills\\_laws/archivebills/2001\\_ESB485.pdf](https://www.oregonlegislature.gov/bills_laws/archivebills/2001_ESB485.pdf).

## Pennsylvania

- 2014: Pennsylvania General Assembly, 2014 Session, Act 184, <http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2014&sessInd=0&act=184>.

## Rhode Island

- 2000: In 1991, the state adopted the "most recent edition" of the AMA Guides (P.L. 1991, ch. 206). In 2000, NCCI registered a change in benefits due to the release of the AMA Guides, 5<sup>th</sup> Edition, which was adopted in Rhode Island as the "most recent edition" (RI Gen. Laws §§28-29-2 and 28-33-18).
- 2008: In 2007, the AMA released the 6<sup>th</sup> Edition of the AMA Guides. Because Rhode Island had previously been operating under a law requiring the "most recent edition" to be used, and since the state chose not to adopt the 6<sup>th</sup> Edition, the legislature changed the statutory language from "most recent edition" to "5<sup>th</sup> edition" in this year (Rhode Island General Assembly, 2008 Session, S 3111, <http://webserver.rilin.state.ri.us/BillText/BillText08/SenateText08/S3111.htm>).
- 2010: In 2010, the state chose to adopt the 6<sup>th</sup> Edition, and so changed the statutory language from "5<sup>th</sup> edition" to "6<sup>th</sup> edition" (Rhode Island General Assembly, 2010 Session, S 2083, <http://webserver.rilin.state.ri.us/BillText/BillText10/SenateText10/S2083A.pdf>).
- 2012: NCCI registered a change from the adoption of S 2083 from 2010 in this year.

## South Carolina

- 2003: South Carolina General Assembly, 115<sup>th</sup> Legislative Session (2003-2004), R 147, <https://www.scstatehouse.gov/billsearch.php?billnumbers=r%20147&session=115&summary=B&PRINT=1>.
- 2006: NCCI

2007: South Carolina General Assembly, 117<sup>th</sup> Legislative Session (2007-2008),  
<https://www.scstatehouse.gov/billsearch.php?billnumbers=r%20163&session=117&summary=B&PRINT=1>.

2008: NCCI registered part of the changes from 2007 in this year.

2010: NCCI

### **South Dakota**

2001: South Dakota Legislature, 1999 Legislative Session, SB 49, <http://sdlegislature.gov/sessions/1999/49.htm>.

This bill closed the Subsequent Injury Fund to new claims.

2002: NCCI

2013: South Dakota Legislature, 2013 Legislative Session, SB 75,  
[http://sdlegislature.gov/statutes/Session\\_Laws/DisplayChapter.aspx?Session=2013&Chapter=260](http://sdlegislature.gov/statutes/Session_Laws/DisplayChapter.aspx?Session=2013&Chapter=260). This bill adopted the AMA Guides, 6<sup>th</sup> Edition.

### **Tennessee**

2002: Tennessee General Assembly, 102<sup>nd</sup> Legislature (2001-2002), SB 277,  
<http://wapp.capitol.tn.gov/apps/Billinfo/default.aspx?BillNumber=SB0277&ga=102>.

2004: Tennessee General Assembly, 103<sup>rd</sup> Legislature (2003-2004), HB 3531,  
<http://wapp.capitol.tn.gov/apps/Billinfo/default.aspx?BillNumber=HB3531&ga=103>.

2005: NCCI registered part of the changes from HB 3531 (2004) in this year.

2007-2010: NCCI

2011: NCCI noted a medical fee schedule change in this year. Also there was a legislative change: Tennessee General Assembly, 107<sup>th</sup> Legislature (2011-2012), SB 932,

<http://wapp.capitol.tn.gov/apps/Billinfo/default.aspx?BillNumber=SB0932&ga=107>.

2014: Tennessee General Assembly, 108<sup>th</sup> Legislature (2013-2014), SB 200,  
<http://wapp.capitol.tn.gov/apps/Billinfo/default.aspx?BillNumber=SB0200&ga=108>.

2016: Rule change adopting medical treatment guidelines: Tennessee Department of Labor and Workforce Development, Workers' Compensation Division, Chapter 0800-02-25: Workers' Compensation Medical Treatment Guidelines, <https://publications.tnsosfiles.com/rules/0800/0800-02/0800-02-25.20180205.pdf>.

### **Texas**

2003: Texas Legislature, 77<sup>th</sup> Regular Session (2001), HB 2600,  
<https://capitol.texas.gov/BillLookup/History.aspx?LegSess=77R&Bill=HB2600>. Change registered in this year by NCCI.

2004: NCCI

2006: Texas Legislature, 79<sup>th</sup> Regular Session (2005),  
<https://capitol.texas.gov/BillLookup/History.aspx?LegSess=79R&Bill=HB7>.

2007-2011, 2015: NCCI

### **Utah**

2003, 2005, 2007: NCCI

2009: *Merrill v. Utah Labor Commission*, Supreme Court of Utah, No. 20070584 (2009),  
<https://caselaw.findlaw.com/ut-supreme-court/1500509.html>.

2011-2012: NCCI

### **Vermont**

2002: In 1994, the Vermont General Assembly adopted the "most recent edition" of the AMA Guides (Vermont General Assembly, 1993-1994 Legislative Session, S 377,  
<http://www.leg.state.vt.us/database/status/summary.cfm?Bill=S%2E0377&Session=1994>). The 5<sup>th</sup> Edition of the

Guides was released in 2000. However, NCCI registered a change due to the new edition of the guides in this year (NCCI).

2004: Vermont General Assembly, 2003-2004 Legislative Session, H 632,  
<http://www.leg.state.vt.us/database/status/summary.cfm?Bill=H%2E0632&Session=2004>.

2005: Vermont General Assembly, 2003-2004 Legislative Session, H 632,  
<http://www.leg.state.vt.us/database/status/summary.cfm?Bill=H%2E0632&Session=2004>.

2006: NCCI

2007: NCCI registered a change to the medical fee schedule in this year (NCCI). Also, the 6<sup>th</sup> Edition of the AMA Guides was released in this year. Since the state was operating under a “most recent edition” assumption, and since the legislature chose not to adopt the 6<sup>th</sup> Edition, the legislature amended the statutory language from “most recent edition” to “fifth edition” (Vermont General Assembly, 2007-2008 Legislative Session, S 345, <http://www.leg.state.vt.us/database/status/summary.cfm?Bill=S%2E0345&Session=2008>).

2008: NCCI

### **Washington**

2011: There were three legislative changes in this year:

1. Washington State Legislature, 2011-2012 Legislative Session, HB 2123,  
<http://apps2.leg.wa.gov/billsummary?BillNumber=2123&Year=2011&BillNumber=2123&Year=2011>.
2. Washington State Legislature, 2011-2012 Legislative Session, SB 5801,  
<http://apps2.leg.wa.gov/billsummary?BillNumber=5801&Year=2011&BillNumber=5801&Year=2011>.
3. Washington State Legislature, 2011-2012 Legislative Session, HB 1725,  
<http://apps2.leg.wa.gov/billsummary?BillNumber=1725&Year=2011&BillNumber=1725&Year=2011>.

### **West Virginia**

2003: West Virginia Legislature, 2003 Second Special Session, SB 2013(2X),  
[http://www.wvlegislature.gov/Bill\\_Status/Bills\\_history.cfm?input=2013&year=2003&sessiontype=2X&btpe=bill](http://www.wvlegislature.gov/Bill_Status/Bills_history.cfm?input=2013&year=2003&sessiontype=2X&btpe=bill).

2008: NCCI

2009: West Virginia Legislature, 2009 Regular Session, SB 537,  
[http://www.wvlegislature.gov/Bill\\_Status/bills\\_history.cfm?INPUT=537&year=2009&sessiontype=RS](http://www.wvlegislature.gov/Bill_Status/bills_history.cfm?INPUT=537&year=2009&sessiontype=RS).

### **Wisconsin**

2002: Wisconsin State Legislature, 2001-2002 Legislative Session, SB 251,  
<https://docs.legis.wisconsin.gov/2001/proposals/reg/sen/bill/sb251>.

2006: Wisconsin State Legislature, 2005-2006 Legislative Session, AB 1163,  
<https://docs.legis.wisconsin.gov/2005/proposals/reg/asm/bill/ab1163>.

### **Wyoming**

2009: Wyoming State Legislature, 2009 General Session, HB 54, <http://www.wyoleg.gov/2009/Enroll/HB0054.pdf>.