Project Report

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California's Subsequent Injuries Benefits Trust Fund

Recent Trends and Policy Considerations

RAND Social and Economic Well-Being

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About This Project Report

A worker who is injured on the job may have a pre-existing disability that compounds the impact of the workplace injury. Providing adequate compensation for the injured worker would account for the direct impacts of the workplace injury as well as any downstream impacts from their prior disability. However, this approach presents a conflict with a key principle in workers' compensation: that the employer should not be responsible for risks and costs of disability arising outside of work. California and other states faced this dilemma after World War II, when large numbers of disabled veterans entered the civilian workforce. As in most other states, California's solution was to establish the "Subsequent Injuries Fund" in 1945—later renamed the Subsequent Injuries Benefits Trust Fund (SIBTF)—and to establish criteria for supplemental workers' compensation benefits that would be paid to certain workers from this Fund. (Labor Code § 4751). For many years, the number of workers who sought benefits from the Fund was limited, and the amount of payments made by the Fund was modest. In recent years, however, application volumes and payments have grown rapidly. The recent upward trajectory of the SIBTF has led to questions about the factors driving growth in the SIBTF. However, data about individual SIBTF cases needed to understand the trends in caseloads and costs was not available.

The California Department of Industrial Relations (DIR) contracted with RAND to conduct a comprehensive study of the SIBTF. The goal of the study was to capture as much data as possible to document a wide range of basic facts about the SIBTF program that might provide a foundation for informed deliberation over policy options in response to the SIBTF's recent growth. The study focused on cases that were filed or pending between 2010 and 2022.

RAND built a dataset of SIBTF cases filed and adjudicated between 2010 and 2022. The resulting database offers many important insights into trends in cases filed in SIBTF cases in recent years. The intended audience of this report is primarily DIR officials and other policymakers in the state of California, as well as other interested stakeholders.

Justice Policy Program

RAND Social and Economic Well-Being is a division of RAND that seeks to actively improve the health and social and economic well-being of populations and communities throughout the world. This research was conducted in the Justice Policy Program within RAND Social and Economic Well-Being. The program focuses on such topics as access to justice, policing, corrections, drug policy, and court system reform, as well as other policy concerns pertaining to public safety and criminal and civil justice. For more information, email justicepolicy@rand.org.

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Acknowledgments

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A team of dedicated graduate students at RAND underwent a crash course to learn the details of the SIBTF and carefully abstracted data from case documents. This team included Jack Kroger, Shona Olalere, Rita Bahlibi, and Adrian Luna. We thank our project manager Liisa Hiatt for keeping us on task and on budget, program director James Anderson for advice and guidance, and our peer reviewers Seth Seabury and Stephanie Holliday for helpful comments. Any opinions/conclusions presented in this report are those of the authors and not those of the state.

Summary

California workers who are injured on the job and whose disability is exacerbated by a pre-existing condition can seek benefits beyond those they would be awarded in the state's workers' compensation system for the workplace injury alone. Those additional benefits are paid by California's Subsequent Injuries Benefits Trust Fund (SIBTF). A sharp increase in recent years in SIBTF claims and benefits and the potential for even greater liabilities poses a financial challenge for the SIBTF. Total annual payments from the SIBTF on the 12 years of cases considered in this report grew from $13.6 million in 2010 to $232 million in 2022. Looking to the future, this analysis estimates $7.9 billion in SIBTF liabilities for cases filed or pending between 2010 and 2022, the midpoint of an estimated range of $6.4–10.5 billion.

The recent surge in current and future liabilities can in part be attributed to interpretations of SIBTF's governing statutes, which are vague on key issues concerning eligibility and compensation, and which are decades old. More recently, the wide parameters of the governing statutes and SIBTF rules have motivated claimants, their representatives, and vendors to make more frequent claims for injuries which in past decades might have yielded smaller benefits or might not have led to any benefits at all. In the absence of policy changes to ensure the SIBTF is implemented in a sustainable and fair way, decisionmakers can reasonably expect that funding demands will exceed the currently available resources and assessments on workers' compensation premiums (or on covered payroll for self-insured employers) will have to continue to rise to cover the Fund's growing liabilities.

This report presents data documenting facts and recent trends about the SIBTF program that might provide a foundation for informed deliberation on policy responses to the SIBTF's recent growth. Focusing on cases filed or pending between 2010 and 2022, we obtained key findings that support some potential policy responses that might be considered by decisionmakers interested in stabilizing the SIBTF while continuing to promote the broader objectives of the workers' compensation system.

Background on Workers' Compensation

California's workers' compensation system compensates workers for the loss of productivity and earnings when a work-related injury causes temporary or permanent disability. In most workers' compensation cases, this compensation is provided in the form of temporary (TD) and/or permanent disability (PD) benefits, which are typically paid out over time based on a formula derived from ratings of the severity of the worker's impairments. Workers are also entitled to medical treatment for their work-related injury. These benefits and medical treatment,

like the other costs of the workers' compensation system, are financed by employers through workers' compensation insurance premiums or self-insurance.

The "grand bargain" underlying workers' compensation systems protects employers from unpredictable tort awards in civil claims arising from employees' work-related injuries in exchange for payments into the workers' compensation system. For employees, the grand bargain relieves them of the obligation to prove employer negligence in the tort system in exchange for workers' compensation benefits that may be lower than they might have received from a negligence claim in the civil courts system. In workers' compensation, employees also are not subject to reductions in compensation for work-related injuries due to their own fault or negligence, as they might be in the civil courts system.

In the workers' compensation system, pre-existing disabilities that exacerbate a workplace injury can raise the cost of compensation for the full extent of disability over what the employer would have paid for a workplace injury alone. This additional cost of exacerbated workplace injuries can conflict with the principle that the employer should not be responsible for costs arising from the employees' circumstances outside the workplace. This situation creates a dilemma: Providing disability compensation without accounting for the pre-existing disability could leave workers inadequately protected, but making the employer responsible for the pre-existing disability might increase employer costs and costs of the system as a whole and discourage employers from hiring workers with visible disabilities.

Workers' compensation systems have addressed this dilemma by creating funds to compensate employees for exacerbation of work-related injuries by pre-existing disabilities. The first such *subsequent injury fund* was enacted in New York in 1916. California followed suit in 1945 with its "Subsequent Injuries Fund" (Labor Code § 4751), when large numbers of disabled World War II veterans began to enter the civilian workforce. Similar funds were eventually established in 47 states.

California's program targets injured workers with a pre-existing disability which, in combination with a work injury, would lead to a higher PD rating than what would be assigned on the basis of their workplace injury (referred to as the *subsequent industrial injury* [SII]) alone. Under this program, now referred to as the SIBTF, injured workers meeting these criteria receive additional PD benefits paid by the Fund (rather than their employer). Benefits paid by the SIBTF are financed by an assessment on workers' compensation premiums (or on covered payroll for self-insured employers), so that the burden of the Fund's payments are spread broadly across all employers covered by workers' compensation. In principle, the SIBTF reduces employer incentives to discriminate against those with pre-existing disabilities by breaking the close link between benefit payments and employer costs that exists throughout the workers' compensation system.

Study Objectives and Methods

In recent years, application volumes for SIBTF benefits have grown rapidly, as have the amounts paid out by the SIBTF. Insurer and employer assessments needed to finance the SIBTF have had to increase to cover these rising costs; the insurer assessment, for example, has risen 800 percent between Fiscal Year 2011 and Fiscal Year 2024, from 0.17 cents per $100 of premiums to 1.6 cents per $100 of premiums.

This trend has led to questions about the factors driving growth in the SIBTF. However, the data needed to understand the patterns of growth in caseloads and costs were not available. To begin addressing the lack of evidence on the SIBTF, the California Department of Industrial Relations (DIR) contracted with RAND to conduct a comprehensive study of SIBTF cases filed and resolved in recent years. The goal of the study was to document a wide range of basic facts about the SIBTF, focusing on cases filed or pending between 2010 and 2022. In this report, we

- describe the characteristics of the SIBTF applicant population, including the nature and severity of the impairments for which they sought compensation
- report trends in case volumes and case outcomes over time
- describe payments from the Fund
- estimate the liabilities of the Fund associated with cases in the 2010–2022 study population, including the expected liabilities associated with cases that are still pending.

Methods

To answer even basic questions about the Fund and program, it was necessary to collect new primary data on cases that have been filed against the SIBTF over the 2010–2022 study period. To facilitate the study, DIR gave RAND access to the Electronic Adjudication Management System (EAMS), which is the case management system used by workers' compensation judges (WCJs) and parties in the workers' compensation courts. There are also non-public internal subsystems within EAMS that are used by DIR in administering various aspects of the workers' compensation system, including systems used to record certain electronic data regarding workers' compensation cases. The SIBTF Claims Unit uses internal systems within EAMS to process payments and to create and store internal claims administration records and other materials. RAND worked with DIR staff to extract structured data from all relevant parts of EAMS about SIBTF cases and the underlying workers' compensation claims associated with each case.

Many important details, however, were recorded only in court filings or internal records created by the SIBTF program and could not be obtained from structured data in EAMS. RAND therefore reviewed and abstracted information from case documents for a random sample of over 1,000 SIBTF cases, which provides an adequate basis for rigorous analysis. Details that could be obtained only from this "eyes-on" review of SIBTF case documents included critical information such as the types of impairments and health conditions alleged by the applicant, the PD rating associated with the SII, the combined PD rating reflecting the impact of both the SII and the pre-

existing permanent partial disability (PPD), and the worker's receipt of other disability compensation that might reduce the SIBTF's liability in the case.

This report's analytical rigor requires the use of terms of art and usages that may be unfamiliar to readers who do not have substantial experience with all aspects of the California workers' compensation system and the SIBTF. For their convenience, we include a glossary of key terms below as a reference tool. A full list of abbreviations is found after this report's conclusion section.

Glossary of Key Terms

- **SIBTF / SIBTF Fund / the Fund:** Subsequent Injuries Benefits Trust Fund.
- **SIBTF program:** functioning and/or administration of the program as a whole.
- **SIBTF cases:** workers' compensation cases filed by an applicant seeking benefits from the SIBTF Fund.
- **Regular workers' compensation cases:** Claims seeking compensation for an industrial/work injury.
- **TD:** temporary disability or temporary disability benefits.
- **PD:** permanent disability or permanent disability benefits.
- **PPD:** pre-existing permanent partial disability (as alleged for the purposes of an SIBTF case).
- **PTD:** permanent total disability (100 percent) or permanent total disability benefits.
- **SII:** subsequent industrial injury; for purposes of the SIBTF case, the compensable work injury on which the SIBTF claim is based.
- **C&R:** a "compromise and release settlement", in which a worker's compensation case (either an SII case or an SIBTF case) is settled for a lump sum payment without the opposing parties necessarily reaching agreement on all disputed issues in the case.
- **Stipulations**: A "stipulations with request for an award settlement," in which a worker's compensation case (either an SII case or an SIBTF case) is settled with the parties reaching agreement about PD rating(s) and other relevant issues.
- **F&A:** findings and award; a decision issued by a workers' compensation judge (WCJ) after a trial, awarding benefits to the applicant and making findings as to PD and other issues. In an SIBTF case, the F&A will lead to a lifetime payment of benefits, either permanent partial disability and a life pension, or 100-percent PTD benefits.
- **F&O:** findings and order; a decision issued by a WCJ after a trial finding that the applicant is not entitled to benefits or an award (i.e., an adverse decision against the worker).
- **Dismissal:** SIBTF case is closed without benefits to the worker.

Background on Eligibility and Benefits in the SIBTF

The SIBTF program and the concepts summarized in this section are addressed in substantially greater detail in the chapters following. The basic concept, parameters, and eligibility requirements for compensation from the SIBTF Fund are set forth in a single section of the Labor Code (§ 4751). Section 4751 sets five requirements for an injured worker to establish eligibility for benefits from the SIBTF Fund:

1. The applicant had one or more pre-existing permanent partial disabilities (PPDs) that were actually labor disabling at the time the applicant suffers a subsequent work injury.
2. The applicant suffered a subsequent compensable work injury, referred to in this report and in the SIBTF program as a subsequent industrial injury (SII).
3. The permanent disability resulting from the combination of the pre-existing permanent partial disabilities (the PPDs) and the subsequent industrial injury (the SII) *is greater than the permanent disability resulting from the SII alone*.

4. The permanent disability resulting from the combined effect of the SII and PPDs together is rated at least *70 percent or higher*.
5. The permanent disability resulting from the SII alone, without adjustment for age or occupation, was either: (1) at least *35 percent*, or (2) was at least *5 percent* and affected a hand, an arm, a foot, a leg, or an eye that is "*opposite and corresponding*" to a body part that had prior permanent partial disability.

Case law clarified that the pre-existing disability also needs to be "actually labor disabling," meaning that it could have been the basis for workers' compensation permanent partial disability benefits had it resulted from employment. No other restrictions on the cause or nature of the pre-existing disability are imposed; health conditions that are asymptomatic, previously undiagnosed, developmental, congenital, or associated with aging can all be considered pre-existing disabilities that qualify the worker for SIBTF benefits.

For a worker who meets the requirements for SIBTF eligibility, the benefits owed by the SIBTF are defined as the difference between the combined PD benefits that would be provided based on the SII and pre-existing disabilities and the amount owed to the worker for PD benefits on the SII alone. Represented as an equation, the SIBTF benefits are calculated as:

$$(\text{Total PD resulting from the combination of SII and PPD}) - (\text{PD resulting from the SII}) - (\text{Credits for other disability compensation}) = \text{SIBTF responsibility}.$$

Any compensation for the pre-existing disability that the worker receives from other sources is counted as credits that reduce the SIBTF's liability; previous workers' compensation claims and Social Security Disability Insurance (SSDI) are the most common types of credits. Credits can also include awards or settlements from lawsuits (most commonly resulting from car accidents) and employer-provided disability pensions.

SIBTF Resolutions and Lifetime Benefits

In general, SIBTF cases can resolve in one of three ways:

- *Compromise and release* (C&R): The case is settled for a lump sum payment without the opposing parties necessarily reaching agreement on all disputed issues in the case.
- *Findings and award* (F&A) or *stipulations with request for an award* (Stipulations): The case is either settled with the parties reaching agreement about PD ratings and other pertinent facts (Stipulations) or is resolved by a WCJ's decision after trial finding the applicant is eligible and awarding benefits with specified PD ratings (F&A), leading to the payment of PD benefits over the worker's lifetime.
- *Dismissal*: The case is closed without benefits to the worker, either because a WCJ ruled against the worker (called a findings and order [F&O]), or because the case was administratively closed by the SIBTF Claims Unit after evidence that the case was abandoned by the applicant.

All cases resolved either by Stipulations or F&A must meet the broad eligibility criteria for SIBTF. Some cases resolved by C&R would likely meet these criteria if fully adjudicated, but

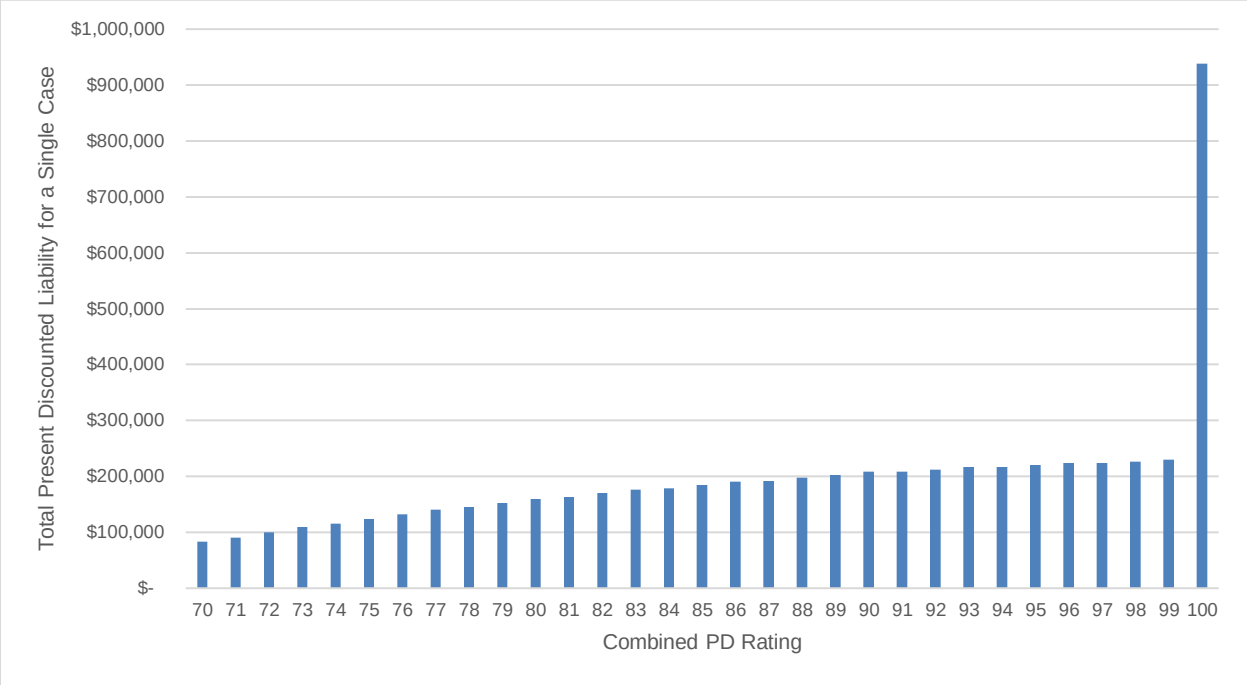
C&R cases can also settle—often for low amounts—when the applicant has uncertain chances of success at trial.

The details of the ratings are most relevant for cases resolved by Stipulations or F&A, which lead to a lifetime stream of payments. Workers with combined disability ratings from 70 to 99 percent qualify for permanent partial disability benefits (which end after a number of weeks determined by the PD rating) and a life pension (which begins after the permanent partial disability benefits have been paid out and ends at death). If the combined rating equals 100 percent, the worker is entitled to lifetime permanent total disability benefits, which are paid out at the TD rate. Permanent total disability benefits are far more generous payments than other disability benefits provided in the workers' compensation system, both because the amount paid per week can be much higher and because permanent total disability benefits are paid until death. Other benefits paid in regular workers' compensation cases, such as medical treatment, are not provided by the SIBTF.

Permanent total disability benefits have played an important role in the increase in SIBTF benefits in recent years and affect future liabilities; understanding that dynamic requires some context on lifelong disability benefit payments. In regular workers' compensation cases outside the SIBTF program, lifelong disability benefit payments are infrequent in the California workers' compensation system because it is rare for cases to reach a PD rating of 70 percent or higher. Permanent total disability cases are even more rare, yet workers who receive these benefits receive very large payments from the workers' compensation system for the rest of their lives.

The consequences of moving from a 99-percent rating to a 100-percent rating results in a large increase in the value of benefits. This is true in both regular workers' compensation cases and in SIBTF cases. Figure S.1 below shows an example of the significant financial impact on the Fund of a claimant reaching a 100-percent rating. The figure shows the estimated total present-discounted liability for a hypothetical worker with an SII rating of 53 percent and who was 50 years old at the time of the SII injury in 2020 and had an average weekly wage of $850 prior to their injury. These factors are held constant, and we vary the total combined disability rating from 70 to 100 percent. Total expected liability quadruples from $230,000 with a combined rating of 99 percent to $938,000 when the combined rating reaches 100 percent—when everything else about the worker and the resolution are exactly the same.

Figure S.1. Impact of 100% Combined PD Rating on Expected Liabilities



SOURCE: Authors' simulations using RAND liability calculator.
NOTE: Values shown in real 2023 dollars. We assume no credits were applied. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. Future cost-of-living adjustments (COLAs) for LP and PTD benefits assumed to be 3.9 percent beginning in 2025.

Todd *Case and the SIBTF*

The importance of PTD resolutions was made even more salient by the June 2020 Workers' Compensation Appeals Board decision in the case of *Todd v. SIBTF*.[1] Prior to the decision, ratings from impairments to multiple body parts, and the PD ratings from the SII and SIBTF cases, were typically combined using a formula referred to as the Combined Values Chart (CVC). The CVC takes into account the theoretical overlapping nature of impairments and disability and produces a combined PD rating that is lower than what would be derived from simple adding together two or more values.

For example, two impairments each rated at 50 percent would yield a rating of 75 percent under the CVC, a calculation reflected in the equation below:

$$\text{Impairment A at } 50\% + (100\% - \text{Impairment B at } 50\%) \times 50\% = 75\% \text{ Impairment Rating.}$$

[1] *Todd v. Subsequent Injuries Benefits Trust Fund* (2020) 85 Cal.Comp.Cases 576 (App. Bd. en banc).

Instead, the *Todd* decision held that simple addition was the correct method to use for combining SII and PPD disability ratings in determining SIBTF eligibility and benefits. Represented as an equation, the *Todd* decision calculation is shown here:

$$\text{Impairment A at } 50\% + \text{Impairment B at } 50\% = 100\% \text{ Impairment Rating.}$$

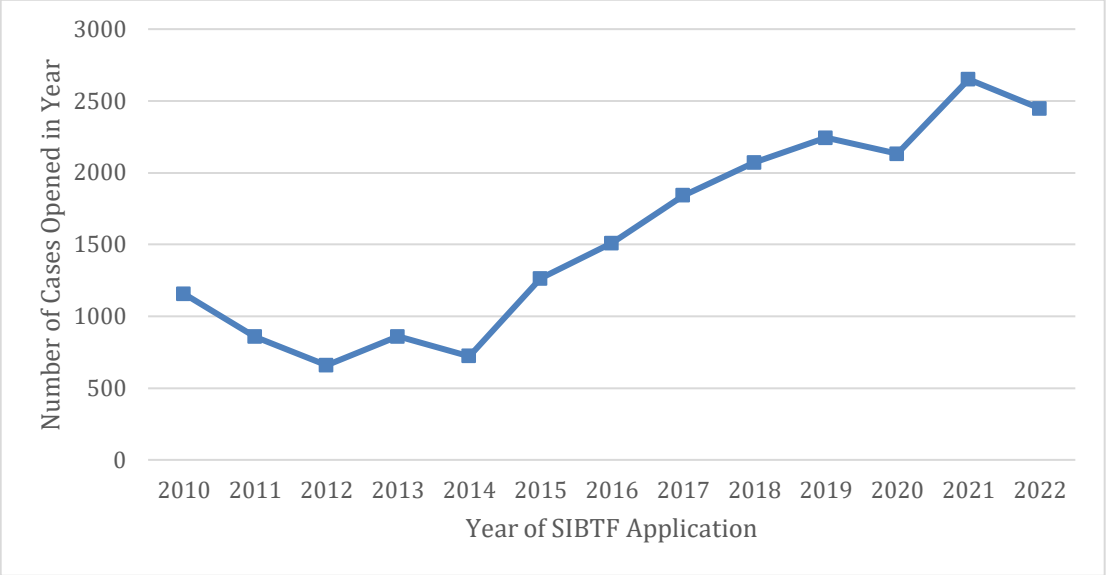
This decision made it far more likely that an SIBTF case would reach a combined rating of 100 percent. In the examples above, the combined rating would increase from 75 percent pre-*Todd* to 100 percent post-*Todd*. As we show below, this decision has had a large impact on case outcomes and total liabilities of the Fund.

Therefore, even though the total number of cases in SIBTF is small relative to the California workers' compensation system as a whole, the financial consequences of these benefits to injured workers and to the state are significant and, as we show below, growing substantially.

Trends in the Volume of SIBTF Applications, Case Outcomes, and Pending Cases

This report offers new insight into trends in volume of SIBTF applications and how those cases resolved, as well as volume of pending cases. SIBTF cases are initiated when an injured worker or their attorney files an application form or (in some older cases) when the attorney petitions to add the SIBTF as a party to the workers' compensation case. Figures S.2–S.4 present key facts about how SIBTF applications, SIBTF case volumes, and the backlog of pending cases have evolved between 2010 and 2022.

Figure S.2. Number of SIBTF Applications by Year Filed, 2010–2022



SOURCE: RAND analysis of EAMS data.
NOTE: See Appendix A for details.

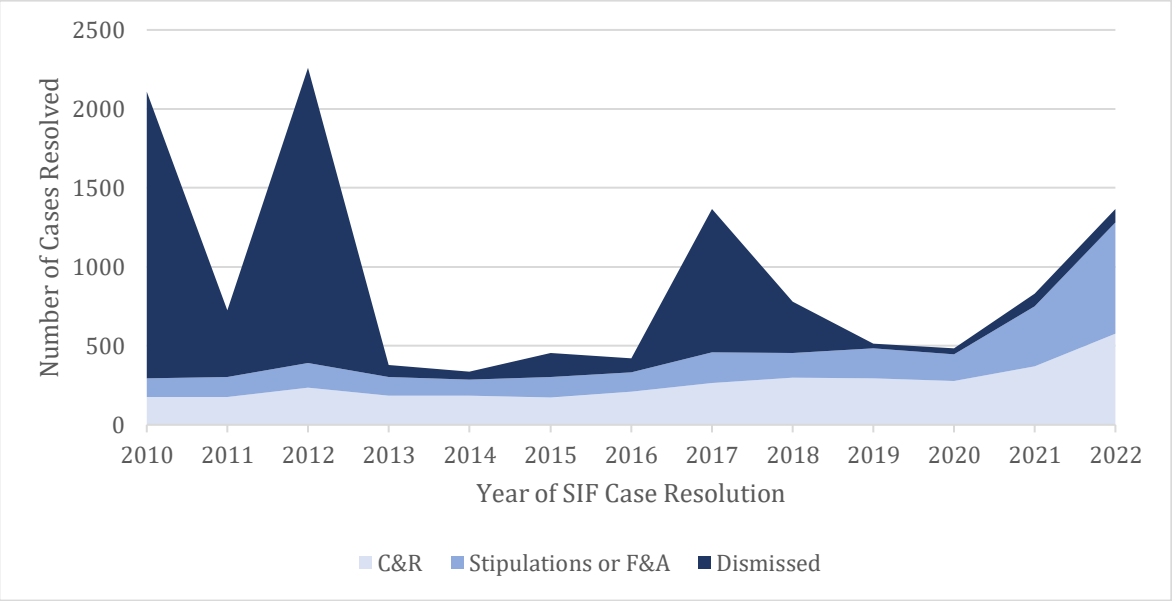
Application Volume

The volume of annual applications has nearly tripled since 2015. Between 2010 and 2014, around 850 new SIBTF applications were filed per year, but reached around 2,000 applications per year by 2020. Application volumes in 2021 (2,650 applications) and 2022 (2,448 applications) were even higher (Figure S.2).

Number and Nature of Resolutions with Benefits

Since 2020, the number of resolutions with benefit payments has grown, and the type of benefits in resolved cases has shifted from one-time lump sum C&R settlements toward a lifelong stream of benefits. Figure S.3 shows that before 2016, the volume of case resolutions with benefits (including lump sum settlements) held stable at around 320 cases per year, with C&R lump sum settlements accounting for about three in five case resolutions with benefit payments. Around 2016, the volume of cases resolved with benefit payments began to grow, averaging 460 per year over 2019–2020, and there has been much more rapid growth in the number of cases resolved per year since 2020: 752 cases were resolved in 2021 and 1,284 cases were resolved in 2022.

Figure S.3. Number of SIBTF Cases Resolved by Year of Resolution and Manner of Resolution, 2010–2022



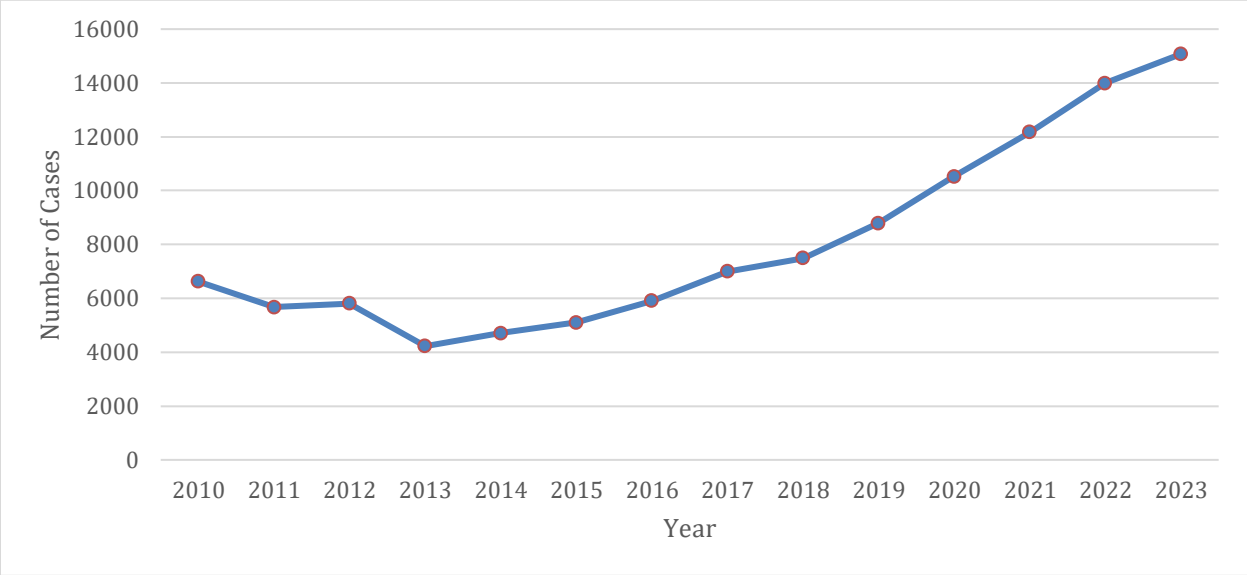
SOURCE: RAND analysis of EAMS data.
NOTE: See Appendix A for details.

While the number of C&Rs per year has grown during this time, growth in Stipulations and F&As has been far more rapid: Stipulations and F&As reached 51 percent of resolutions with benefit payment in 2021 and 55 percent in 2022 after averaging just 39 percent of resolutions with benefit payment between 2010 and 2020. Several large spikes in administrative dismissals of SIBTF cases (in 2010, 2012, and 2017–2018) accounted for a large share of all SIBTF case dismissals during the study period.

Volume of Pending Cases

Although case resolution has accelerated in recent years, growth in SIBTF applications has been faster, leading to a growing backlog of pending cases. In 2010, 6,621 cases were pending at the start of the calendar year. The number of pending cases fell to a low of 4,223 in 2013 but has grown steadily ever since. At the start of 2023, there were just over 15,000 pending SIBTF cases in the system (Figure S.4).

Figure S.4. Number of SIBTF Cases Pending at Start of Year, 2010–2023



SOURCE: RAND analysis of EAMS data.
NOTE: See Appendix A for details.

Characteristics of SIBTF Applicants

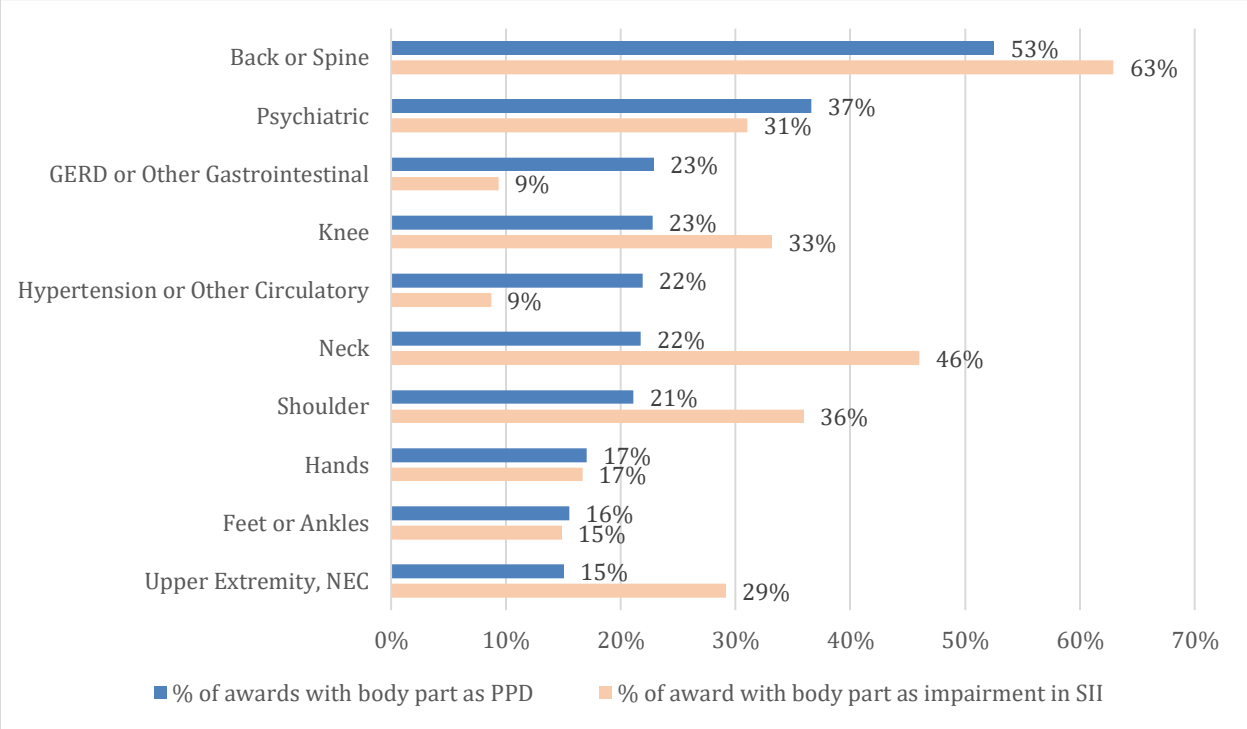
The characteristics of SIBTF applicants, including health conditions, has direct bearing on SIBTF benefits and Fund liabilities. In Chapter 4, we describe demographic characteristics of workers including age, occupation, and locations throughout the state. One of the most important recent trends has been changes in profile of applicants' health conditions, which we discuss here. We collected data from case documents on the conditions alleged on the SIBTF application, as well as the conditions that formed the basis for benefits. Discussion in this summary focuses on conditions that formed the basis for benefits; findings about the conditions that were alleged on the application were broadly similar, and are described in Appendix C.

Health Conditions Involved in the Subsequent Industrial Injury and the Pre-Existing Permanent Partial Disability

Figure S.5 lists the ten impairments or health conditions most frequently identified as PPDs in case documents as the basis for benefits by Stipulations or F&A. The figure shows how often these cases appeared as a PPD or as an impairment related to the SII. Many of the most common PPDs are conditions that are also common in the workers' compensation system. For example, back and spine impairments, which were the most frequently identified condition as both a PPD and an SII impairment, appeared as a PPD in 53 percent of resolutions with benefits and as an SII impairment in 63 percent of resolutions with benefits. The second-most frequently identified conditions were psychiatric impairments, which appeared as a PPD in 37 percent of resolutions

with benefits and as an SII impairment in 31 percent of resolutions with benefits. Impairments of the knee, neck, shoulder, hands, feet or ankles, and upper extremities (specified without further detail) were also among the ten most common PPDs. All these impairment types appeared on a similar or higher share of SIIs.

Figure S.5. Most Common Pre-Existing Permanent Partial Disabilities Cited as Basis for SIBTF Resolution with Benefits



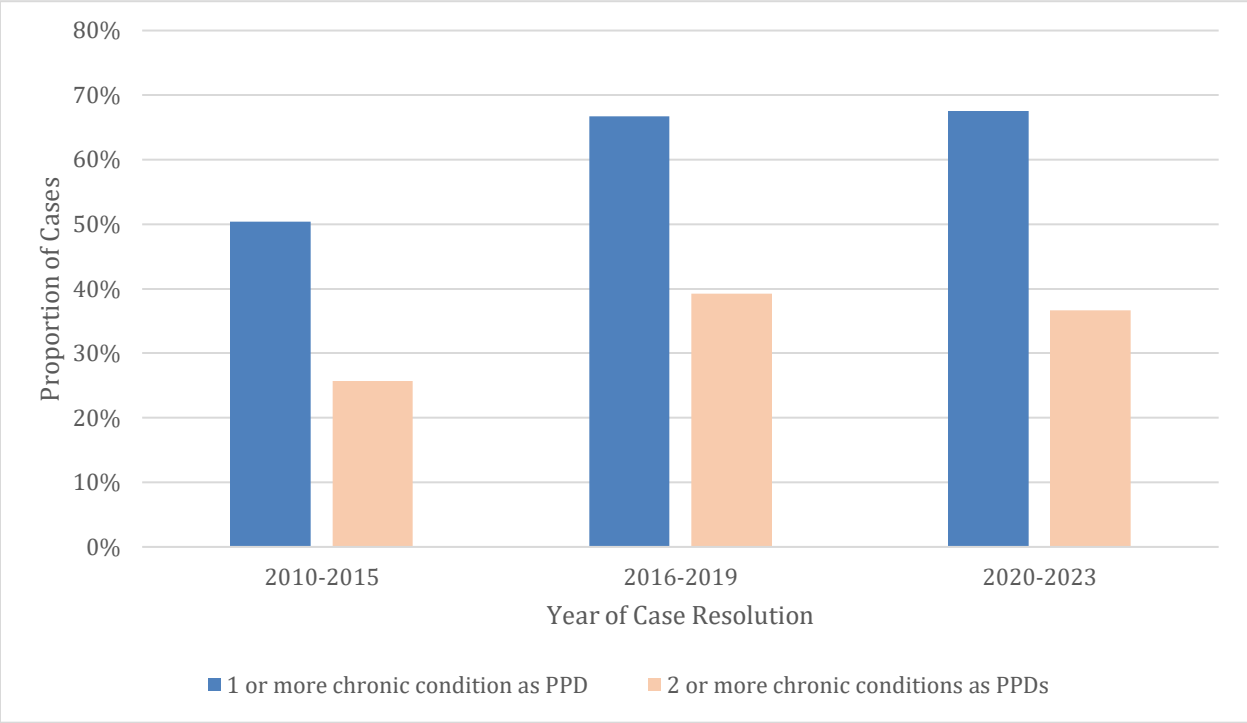
SOURCE: RAND analysis of SIBTF case documents.
NOTE: NEC = not elsewhere classified. PPD = pre-existing permanent partial disability. Figure shows proportion of cases resolved with Stipulations or F&A in which a specific condition is cited as the basis for the benefit. Estimates based on sample of 174 cases with at least one PPD and one SII identified in a Stipulations or F&A case-resolving document. Additional details on condition definitions available in Appendixes A and C.

Notably, Figure S.5 also shows that two widespread chronic conditions that rarely appear as SIIs were very common among PPDs. Gastroesophageal reflux disease (GERD) was the third most common PPD, appearing on 23 percent of SIBTF resolutions with benefits; hypertension or other circulatory diseases were the fifth-most common PPD, appearing on 22 percent of SIBTF resolutions with benefits. While these conditions also appear in the regular workers' compensation system, they were more than twice as common as a PPD than they were as an SII.

Beyond GERD and hypertension, we found that PPDs that formed the basis for SIBTF benefits frequently included a number of chronic conditions that are rarely seen in the regular workers' compensation system and are common attendants to normal aging such as diabetes, arthritis, headaches, and obesity. With input from DIR, we defined a set of these chronic

conditions and estimated how often an SIBTF benefit was based on one or more of these chronic conditions as a PPD. We also examined how the proportion of SIBTF resolutions with benefits involving these PPDs has changed over time (Figure S.6).

Figure S.6. Proportion of SIBTF Resolutions with Benefits Based on One or More Chronic Conditions, by Year of Case Resolution



SOURCE: RAND analysis of SIBTF case documents.
NOTE: Figure shows proportion of cases resolved with Stipulations or F&A in which one or more chronic conditions specified by DIR was cited as the basis for the resolution. Estimates based on sample of 174 cases with at least one PPD and one SII identified in a Stipulations or F&A case-resolving document. Chronic conditions included are GERD or other gastrointestinal conditions, circulatory conditions, hypertension, hearing loss, sleep disorders, vision problems or eye conditions, diabetes, headache, arthritis or non-specific orthopedic conditions, sexual dysfunction, and obesity or weight gain. Additional details on condition definitions available in Appendixes A and C.

Figure S.6 shows that the proportion of SIBTF resolutions with benefits based on one or more chronic conditions has grown rapidly since 2010, rising from 29 percent of cases resolved in 2010–2015 to 55 percent of cases resolved in 2020–2022. Two other findings of note are shown in this figure. First, most of the increase in SIBTF resolutions with benefits based on chronic conditions predates the 2020 *Todd* decision. Second, these conditions remained relatively rare among SIIs throughout the study period.

In Chapter 4, we provide additional detail on how often specific PPDs formed the basis of SIBTF resolutions with benefits, and how the prevalence of each condition as a PPD compared with its prevalence as an SII.

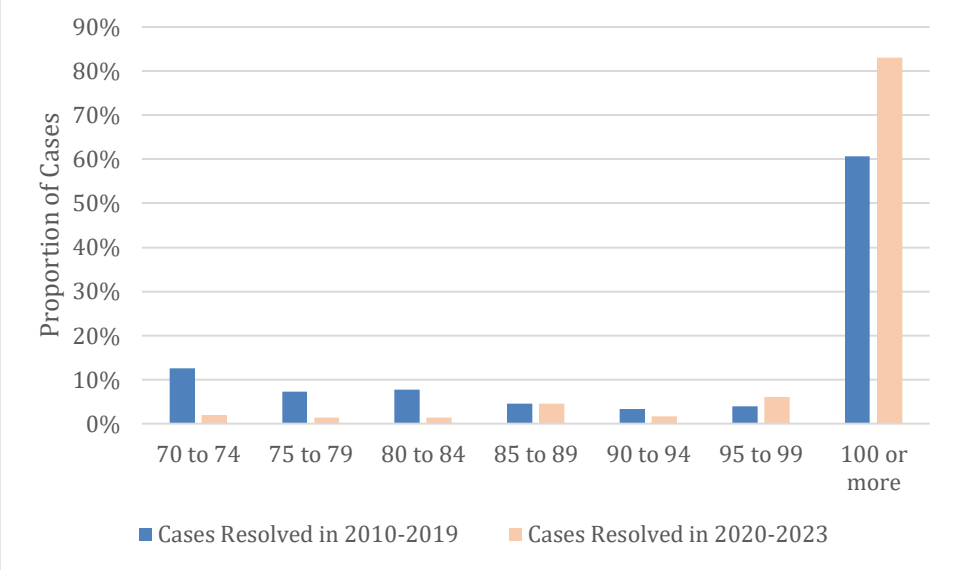
Permanent Disability Ratings in the SIBTF

PD ratings in SIBTF cases, as in regular workers' compensation cases, determine compensation levels, and thus bear on Fund obligations. Injured workers must have PD ratings on the SII case above 35 percent (except for cases with disabilities of corresponding and opposite members, for which the threshold is only 5 percent) to qualify for SIBTF benefits. On average, workers with successful SIBTF applications alleged a PD rating of 54 percent for the SII on their application, and an SII rating of 58 was used to calculate SIBTF benefits.

Seven in ten workers with benefits resolved by Stipulations or F&A were owed PTD benefits. For cases that were resolved by Stipulations or F&A, the average combined rating during our study period was 96 percent. This average was close to 100 percent because 73 percent of cases with benefits resolved by Stipulations or F&A had a rating of 100 percent.

The likelihood that a worker will qualify for PTD benefits has increased dramatically since 2020. Figure S.7 shows the proportion of combined PD ratings on cases with benefits resolved by Stipulations or F&A. Compared with resolutions with benefits made over the decade from 2010 through 2019, the proportion with a combined PD rating of 100 percent was 22 percentage points higher for resolutions between 2020 and 2022.

Figure S.7. Distribution of Combined Disability Ratings by Case Resolution Year



SOURCE: RAND analysis of SIBTF case documents.
NOTE: Figure shows histogram of combined ratings on cases with SIBTF resolutions through Stipulations or F&A, stratified by year of case resolution. Estimates based on sample of 246 cases resolved through Stipulations or F&A with a combined rating reported.

Since 2020, the SIBTF program has seen a larger number of case resolutions with benefits each year, an increase in the likelihood that cases are resolved by Stipulations or F&A, and an

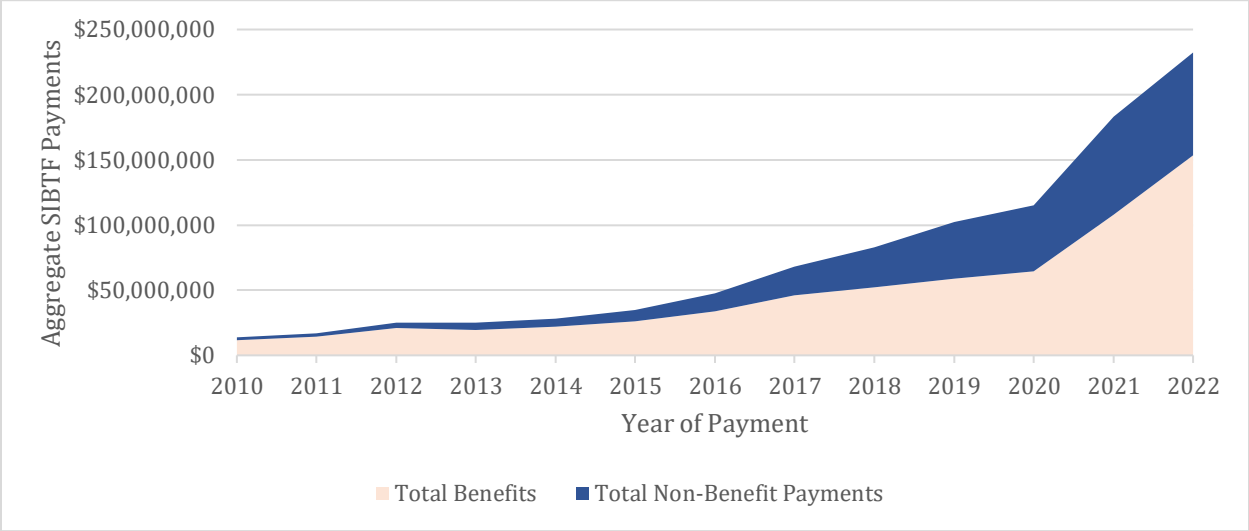
increase in the share of cases resolved by Stipulations or F&A that were owed PTD benefits. This shift likely reflects the impact of the *Todd* decision.

Trends in Payments from the SIBTF

The sharp changes in case outcomes and PD ratings that immediately followed the *Todd* decision have implications for benefit payments and SIBTF liabilities. In total, the SIBTF paid $975 million (in real 2023 dollars) between 2010 and 2022 on cases in our study population. This total includes $631 million in benefit payments to injured workers and $345 million in non-benefit payments to attorneys and other vendors.

Total annual payments from the SIBTF on cases in our study population grew from $13.6 million in 2010 to $232 million in 2022 (Figure S.8). Growth in payments occurred both in benefits paid to injured workers (which grew from $11.6 million in 2010 to $153 million in 2022) and in payments to attorneys and other vendors (which grew from $2 million in 2010 to $79 million in 2022).

Figure S.8. Aggregate Benefit and Non-Benefit Payments from SIBTF, 2010–2022



SOURCE: RAND analysis of SIBTF Claims Unit transaction data.
NOTE: Figure is a stacked line graph showing contribution of benefit payments and non-benefit payments to total payments. Benefit payments are payments to injured workers; non-benefit payments include payments to attorneys and vendors. Payment amounts adjusted to real 2023 dollars using growth in the statewide average weekly wage (SAWW). Payments associated with cases that were resolved before 2010 are not included, so total payments may not match published estimates. Data reflect 27,047 cases, of which 13,217 had at least one benefit or non-benefit payment from the SIBTF between 2010 and 2022.

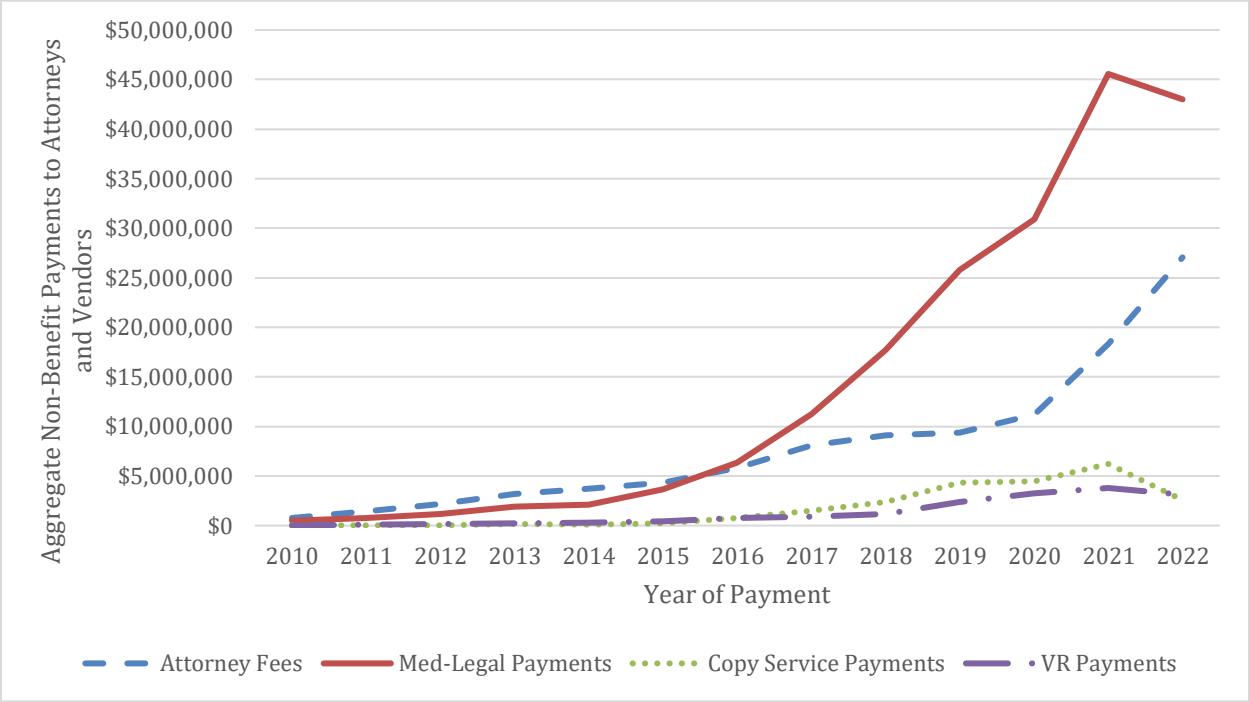
We found that the growth in aggregate payments was driven not just by the rising number of cases resolved with benefits, but also by increases in both benefit and non-benefit payments per case. The average amount of benefits paid out (including both lump sum settlements and ongoing benefits) per year on cases receiving any benefits increased from $32,351 per year in 2010–2015

to $51,132 per year in 2020–2022. These increases in benefits per case reflected the increase documented above in the frequency of resolutions leading to PTD benefit payments.

We also found that the amount of non-benefit payments per year increased. Medical-legal report payments constituted the majority of non-benefit payments between 2010 and 2022, totaling $191 million out of $345 million in total non-benefit payments for cases in our study population. Attorney fees were the second-largest category of non-benefit payments, totaling $105 million over 2010–2022. Copy service fees totaled $23 million, and vocational rehabilitation (VR) report payments totaled $17 million.

Aggregate annual medical-legal report payments grew from $492,000 in 2010 to $43 million in 2022. Aggregate attorney fees also grew rapidly, from $770,000 in 2010 to $27 million in 2022. Copy service and VR payments actually increased at faster rates during this period, but from very small baseline amounts (Figure S.9).

Figure S.9. Aggregate Non-Benefit Payments from SIBTF by Type of Payee, 2010–2022



SOURCE: RAND analysis of SIBTF Claims Unit transaction data.
NOTE: Payment amounts adjusted to real 2023 dollars using growth in the SAWW. Payments associated with cases that were resolved before 2010 are not included, so total payments may not match published estimates. Data reflect 27,047 cases, of which 12,452 had at least one non-benefit payment from the SIBTF between 2010 and 2022.

Another factor that contributed to the growth of non-benefit payments was an increasing frequency of medical-legal reports on SIBTF cases, which are used to evaluate workers' injuries. *The proportion of SIBTF applicants who had one or more medical-legal reports conducted specifically for the SIBTF case doubled between cases filed in 2010–2015 and those filed in 2016–2019, from 23 percent to 46 percent.* Among cases with at least one medical-legal report,

the average number of reports paid by the SIBTF was 3.6 reports, and the average medical-legal payment in cases with one or more report was $21,600—several times greater than the average medical-legal expense per case in the rest of the workers' compensation system. During the study period, the top recipient of medical-legal evaluation fees, an entity, was paid approximately $30.2 million during the study period; the top recipients of attorney and copy fees were both paid approximately $14 million.

Taken together, the shift in case resolutions from C&R lump sum settlements toward ongoing benefit payments granted through Stipulations or F&A has contributed to the acceleration in SIBTF benefits owed by creating a larger stock of cases that have continued payments over time. The cumulative amount of benefits paid on cases with Stipulations or F&A is several times larger than the average C&R lump sum settlement. Both because these cases are associated with larger total SIBTF benefits, and because these SIBTF benefit payments generally last until the death of the injured worker, growth in the number of cases resolved with ongoing benefits rather than C&R lump sum settlements may lead to continued acceleration in the payments made by the SIBTF. An especially important change contributing to faster growth in benefits is the increase since 2020 in the proportion of cases resolving with permanent total disability benefits (rather than permanent partial disability benefits and a life pension).

Long-Term Liabilities of the SIBTF Associated with the 2010–2022 SIBTF Caseload

To understand what the rapid growth in the SIBTF's caseload and payments means in terms of the Fund's long-term liabilities, we used data collected from SIBTF case documents and EAMS to project lifetime payments for cases that resolved with benefits between 2010 and 2022. We estimated the liabilities associated with the 6,000 cases that were resolved with a C&R lump sum settlement or Stipulations or F&A benefits between 2010 and 2022. Then, we combined these estimates with a statistical model of case resolution to calculate the expected liabilities associated with the 15,000 cases that were pending at the time of data collection (in May 2023).

SIBTF Liabilities Associated with Resolved Cases from 2010 to 2022

Table S.1 shows the liability estimates for cases that were resolved at the time of our data collection. *The average liability associated with a case resolved by Stipulations or F&A is more than ten times the average liability of a C&R.* The average liability on cases resolved by Stipulations or F&A was approximately $649,000 per case in present discounted value (PDV), while cases resolved by C&R were associated with average liabilities of approximately $48,000 per case.

Table S.1. Distribution of Present Discounted Values for Resolved Cases

Resolution Type	Mean PDV	Minimum PDV	Maximum PDV
All Stipulations or F&A	$649,059	$0	$2,437,741
Stipulations with PTD	$836,299	$0	$2,437,741
Stipulations with LP	$100,283	$0	$375,443
C&R value	$47,790	$1,500	$239,672

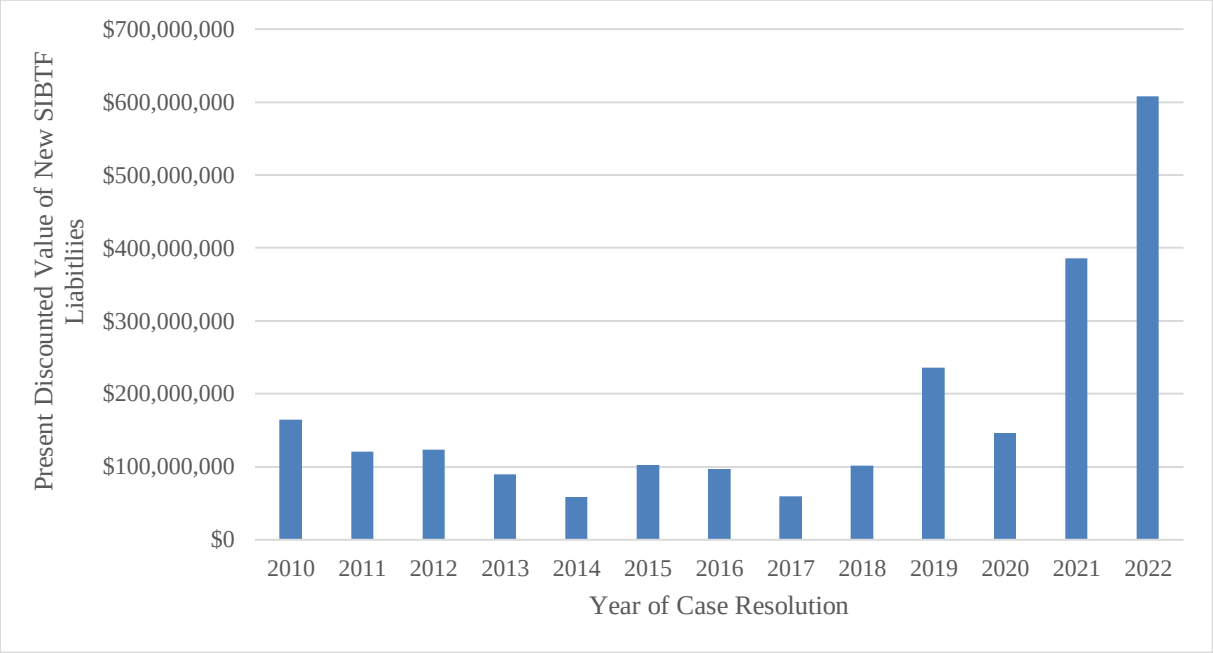
SOURCE: RAND analysis of SIBTF case documents
NOTE: Estimates based on sample of 274 Stipulations or F&A cases and 308 C&R cases. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. Future COLAs for LP and PTD benefits assumed to be 3.9 percent beginning in 2025. All totals adjusted to real 2023 dollars after discounting. Averages calculated using sampling weights.

Furthermore, liabilities associated with cases resolved by Stipulations or F&A were driven by cases that resulted in PTD benefits. Cases with PTD benefits were associated with liabilities of approximately $836,000 in PDV, while cases that resulted in permanent partial disability benefits and a life pension were associated with liabilities of $100,000.

Aggregate liabilities on cases resolved each year have grown from an average of $115 million per year between 2010 and 2019 to $608 million for 2022 resolutions. Since 2020, the number of cases resolved has increased, and the probability that a case will resolve with PTD benefits (rather than a C&R settlement or an LP) has also increased. Because the liability associated with PTD cases is so much greater than the liability associated with other types of case resolution, these changes in case outcomes have led to a rapid increase in the amount of liabilities added to the SIBTF for resolved cases.

Figure S.10 shows our estimates of the liability (in real 2023 dollars) associated with cases that were resolved in each year from 2010 to 2022. Since 2020, the number of cases resolved has increased, and the probability that a case will resolve with PTD benefits (rather than a C&R settlement or an LP) has also increased. Because the liability associated with PTD cases is so much greater than the liability associated with other types of case resolution, these changes in case outcomes have led to a rapid increase in the amount of liabilities added to the SIBTF for resolved cases.

Figure S.10. Aggregate Liability Associated with Resolved SIBTF Cases, by Year of Resolution

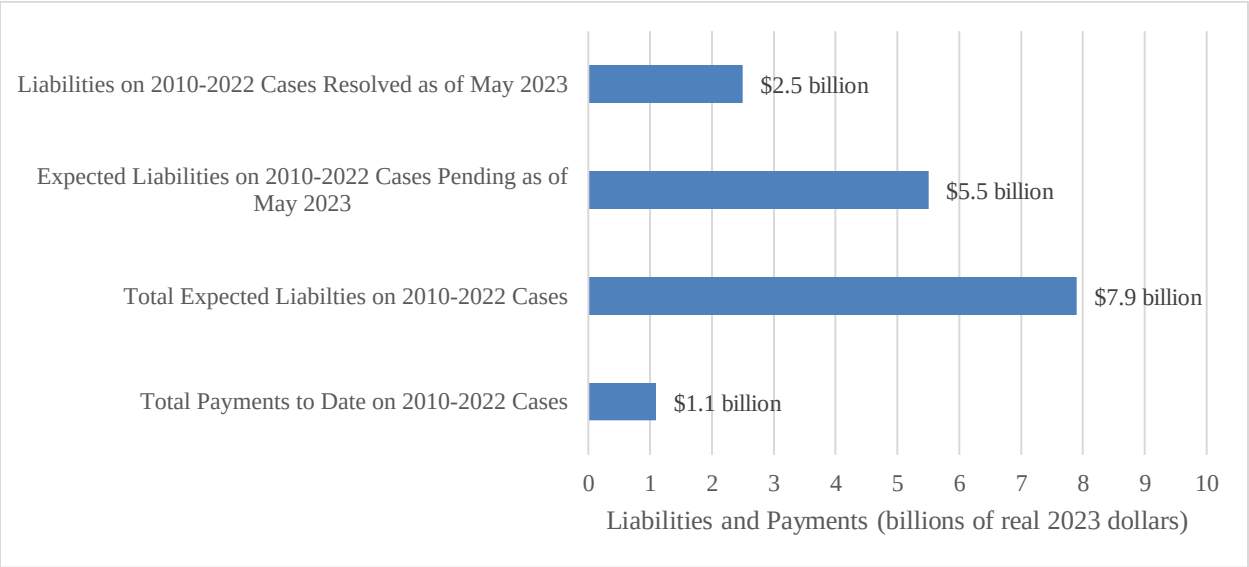


SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 769 cases with a resolution. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. Future COLAs for LP and PTD benefits assumed to be 3.9 percent beginning in 2025. All totals adjusted to real 2023 dollars after discounting. Averages calculated using sampling weights.

SIBTF Liabilities Associated with Pending Cases

While the estimates presented above reflect liabilities associated with cases that were resolved, the number of pending cases at the end of 2022 was 2.5 times the cumulative number of cases resolved with benefits since 2010. Figure S.11 provides our aggregate estimate of expected liabilities on pending cases and combines with our aggregate estimate for resolved cases to obtain an estimate of total liabilities from cases in the system from 2010 to 2022. *We estimate the total liability of resolved and pending cases that were in the system between 2010 and 2022 is approximately $7.9 billion.*

Figure S.11. Total Expected SIBTF Liabilities and Payments to Date on Existing Caseload



SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 1,047 cases. Sampling weights used to extrapolate estimated liabilities to the full population of SIBTF cases between 2010 and 2022. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. Future COLAs for LP and PTD benefits assumed to be 3.9 percent beginning in 2025. All totals adjusted to real 2023 dollars after discounting. Payments to date include benefit payments and attorney fees paid on 2010–2022 SIBTF cases by the time of data extraction in May 2023.

There were 12,366 cases with a resolution occurring between 2010 and the time of data collection in May 2023; half of these resulted in benefit payments, and half were dismissed or resolved without payment. We estimate that the total present discounted lifetime liability of these resolved cases is approximately $2.5 billion (in real 2023 dollars). We estimate the total lifetime liability of the 14,681 unresolved cases (approximately 54 percent of the population) that were pending at the end of our study period to be approximately $5.4 billion.

The projections above rely on a number of assumptions, and we conducted sensitivity analyses (see Appendix B) to evaluate how projected liabilities would vary with changes in each of these assumptions. Across these sensitivity analyses, we obtain a range for total SIBTF liabilities of $6.4–10.5 billion. Our baseline estimate of $7.9 billion falls in the middle of this range.

Figure S.11 also shows how payments to date on resolved cases compares with the liabilities on those cases. As of May 2023, a total of $1.1 billion (in real 2023 dollars) of benefits and non-benefit payments had been paid on cases in the study period. Subtracting this amount from the total liability implies that approximately $6.9 billion of the liability is still outstanding. For some sense of comparison, the California workers' compensation system paid approximately $12.4 billion in total benefits in 2021.

Key Findings

The discussion above describes the insights yielded from the data made available by DIR and our analysis of additional sources. We summarize the key findings here and provide additional detail in the body of the report.

Volume of Applications for SIBTF Benefits Is Growing

The volume of annual applications for SIBTF benefits has nearly tripled since 2015. Roughly steady at about 850 per year from 2010 to 2014, annual volume reached around 2,000 in 2020, and 2,448 in 2022. This trend combines with other factors, including growth in benefit payments, to increase both current and forecasted liabilities for the Fund.

Number of SIBTF Cases Resolved with Benefits, Including Lifetime Stream of Benefits, Is Growing

The number of SIBTF cases resolved with benefit payments has grown and the type of benefits has shifted from one-time lump sum C&R settlement payments toward a lifetime stream of benefits, adding to SIBTF liabilities. Before 2016, the volume of case resolutions with benefits held stable at around 320 cases per year; in 2022 1,284 cases were resolved with benefits, with C&Rs accounting for about three in five case resolutions with benefits.

While the number of C&Rs per year has grown during this time, growth in Stipulations and F&A resolutions has been far more rapid: the share of resolutions with benefits that were Stipulations or F&As reached 55 percent in 2022 after averaging just 39 percent of resolutions with benefits between 2010 and 2020.

Some Chronic Conditions That Are Rare in the Regular Workers' Compensation System Are Common as Permanent Partial Disabilities in SIBTF

The health characteristics of a portion of claimants who get SIBTF benefits indicate that common, chronic conditions are contributing to the increase in SIBTF liabilities. Permanent partial disabilities that formed the basis for SIBTF benefits frequently included a number of chronic conditions that are rarely seen in the regular workers' compensation system and are common attendants to normal aging. These include diabetes, arthritis, headaches, and obesity. The proportion of SIBTF case resolutions with benefits based on one or more chronic conditions has grown rapidly, rising from 29 percent of cases resolved in 2010–2015 to 55 percent of cases resolved in 2020–2022.

An Increase in Claimants with a 100-Percent PD Rating Increases SIBTF Liabilities

An increase in SIBTF claimants with a 100-percent disability rating leads to increased liability for the Fund because benefits rise sharply when that rating is reached. Compared with SIBTF case resolutions with benefits made between 2010 and 2019, the proportion of claimants

with a combined PD rating of 100 percent was 26 percentage points higher for case resolutions with benefits made between 2020 and 2022. The combined effect of the growing number of SIBTF cases that allege one or more (often several) common health conditions as PPDs and the impact of the *Todd* decision, which requires ratings to be added rather than combined, likely contributes to the growing number of cases reaching 100-percent PTD ratings in recent years and the corresponding increases in Fund liabilities.

Payments from SIBTF Rose Moderately Until 2020, When They Accelerated Quickly

The sharp changes in case outcomes and PD ratings that immediately followed the 2020 *Todd* decision have increased SIBTF liabilities at a notably faster rate than in the years prior to that case. Total annual payments from the SIBTF on cases in the study population grew from $13.6 million in 2010 to $232 million in 2022. C&R settlements and benefits paid to injured workers pursuant to Stipulations and F&A resolutions rose from $11.6 million in 2010 to $153 million in 2022, and payments to attorneys and other vendors grew from $2 million in 2010 to $79 million in 2022. The amount of non-benefit payments per year increased, with medical-legal report payments representing the largest share of that during the period studied, totaling $191 million out of $345 million in total non-benefit payments. Attorney fees were the second-largest category of non-benefit payments, totaling $105 million over 2010–2022.

Total Estimated SIBTF Liability of Resolved and Pending Cases in System Between 2010 and 2022 Is Approximately $7.9 Billion

For resolved cases, aggregate SIBTF liabilities each year have grown from an average of $115 million per year between 2010 and 2019 to $608 million for 2022 resolutions. Since 2020, the number of resolved cases has increased, and the probability that a case will resolve with PTD benefits (rather than a C&R settlement or benefits based on permanent partial disability and a life pension) has also increased. Because the liability associated with PTD cases is so much greater than the liability associated with other types of case resolution, these changes have led to a rapid increase in the amount of liabilities added to the SIBTF for resolved cases. We estimate that the total present discounted lifetime liability of these resolved cases is approximately $2.5 billion (in real 2023 dollars).

For unresolved cases, we estimate the total lifetime liability of those 14,681 cases in the SIBTF (approximately 54 percent of the population) that were pending at the end of the study period to be approximately $5.4 billion. Combining estimated liabilities for resolved and unresolved cases produces the $7.9 billion figure. This is the midpoint of the range generated by our analysis, which was $6.4–10.5 billion.

Policy Considerations

The California SIBTF has passed an inflection point and critical decisions will affect the path of the Fund going forward. If the status quo remains, it is very likely that applications to the Fund—and future liabilities—will continue to grow at a rapid or increasing pace. Therefore, any decision will result in a trade-off between investing now in additional efforts to narrow the scope of eligibility for the Fund and investing in the higher costs of benefit and vendor payments over decades to come. If the decision is made to invest in restructuring or narrowing the scope of the program, there are several possibilities.

Amend the SIBTF Statutes to Provide a More Specific Definition of What Constitutes a Pre-Existing Permanent Partial Disability for Purposes of SIBTF Eligibility

As described above, a growing number of SIBTF cases allege PPDs that are common health conditions or chronic diseases frequently found in an aging population. In many cases, the extent to which these conditions are labor disabling is unclear, and case law offers little guidance on how to apply this principle. The program would benefit from more specific eligibility requirements, and a clear specification of the evidence required to establish that a PPD was actually labor disabling at the time of the SII. Statues could be revised to include only certain types of pre-existing disability, excluding common chronic conditions, and to specify the nature of evidence required to show that a condition was actually labor disabling at the time of the SII. Eleven of the 29 states with an active *subsequent injury fund* (sometimes called *second injury fund* or *multiple injury fund*) limit the conditions that may qualify as a PPD to a list specified in the statute, offering precedent for adopting such an approach in California. However, once a list is defined, there will likely be political pressure to expand the list to include additional conditions.

Amend the SIBTF Statutes to Address the Todd *Decision and Specify That Use of the Combined Values Chart Is Necessary in SIBTF Cases*

Returning to the method for combining impairments, and for combining PD ratings for the SII and the alleged PPDs, that was used prior to the *Todd* decision would also bring the SIBTF back into alignment with the way ratings for multiple impairments and multiple disabilities are determined in the rest of the system.

Extend Senate Bill 899 Medical Expert Reforms to SIBTF

Currently, the statutes requiring use of the qualified medical evaluator (QME) process do not apply to the SIBTF program. The Labor Code could be modified to include SIBTF in the medical examiner reforms that were implemented in 2005 for other cases in the system. Narrowing the choice of medical experts and creating mandatory processes around medical evaluations for SIBTF cases, including potentially requiring that the same medical reports used

for the SII be used for purposes of the SIBTF case, could reduce the potential for "doctor shopping" for evaluators who deliver higher ratings specifically targeted at SIBTF eligibility. As described above, recent SIBTF cases have had a growing number of new medical-legal reports obtained specifically for the SIBTF case. Applying the QME process to the SIBTF program could also moderate this growth, limiting the number of potentially unnecessary reports and duplication of or conflict with the QME reporting in the SII case.

Update the SIBTF Threshold Eligibility Criteria to Address the Future Earnings Capacity

Labor Code § 4751, which sets the eligibility requirements for SIBTF, has not changed since 1959. That section provides that when determining the threshold eligibility for an award, the disability of the worker is to be considered "alone" and without consideration of the age or occupation of the worker. The section is silent on the future earnings capacity (FEC) adjustments that were first implemented in 2005 following Senate Bill 899, which increase standard AMA Guides ratings for all impairments by 40 percent. Because of that, the FEC upwards adjustments the FEC adjustments are used in SIBTF cases, which substantially increases the threshold PD ratings and increases the number of eligible applicants. Legislation excluding the FEC from consideration in SIBTF eligibility—or increasing the ratings threshold for the SII—would raise the bar for eligibility.

Adopt a Statute of Limitations for SIBTF Case Filings

A reasonable statute of limitations could be adopted requiring that SIBTF applications be filed within a defined number of years or months after the SII. Currently, cases may be filed many years after the SII, which not only contributes to the increase in case filings but also complicates the accuracy of retrospective medical reporting and PD ratings, impeding accurate evaluation and efficient administration of the cases.

Increase Investments in Fund Administration

There is a substantial backlog of cases already in the system. Just through the time of data collection in May and June 2023, there were already almost 15,000 pending and unresolved cases. A policy change to be considered is whether California should devote substantially greater resources to increasing the size of the SIBTF Claims Unit, and the Office of the Director Legal Unit, to ramp up the processing and resolution of pending SIBTF cases. Doing so might also require increases in resources for, and in the number of, workers' compensation administrative law judges (WCALJs) who oversee the adjudication of SIBTF cases, including in trials when necessary. Ramping up the staffing to clear the backlog would require substantial additional resources up front. And in addition, as cases are resolved, primarily by Stipulations and F&As if no changes are made, the annual payments from the Fund will also significantly increase, which will require increases in the employer assessment.

Reduce Fund Liabilities by Limiting Benefits

Policymakers seeking to reduce SIBTF costs might also consider more drastic changes that would limit the value of benefits. One option would be to cap the benefits paid out by SIBTF on each case. PTD benefits and LP benefits could be limited in duration, age, or dollar amount. Another option would be to reduce SIBTF benefits by the amount of labor earnings; there is currently no mechanism preventing workers from receiving SIBTF benefits while continuing to work. In a similar vein, retirement income (such as Social Security or retirement pensions) might be counted as credits against the SIBTF's liability even though these income sources are not designed to specifically target the worker's disability.

These options have drawbacks that should be considered by legislators, however. First, applying a uniform cap to all SIBTF benefits would necessarily result in the largest reductions for the workers with the largest benefits. Second, reducing SIBTF benefits on the basis of labor earnings would create strong work disincentives. While such an approach could reduce payments from the SIBTF and create savings for employers, these gains would need to be weighed against negative impacts on the labor force and reductions in tax revenue (via lower income and payroll taxes). Such a change would also demand new administrative expenses to monitor the employment, earnings, or non-labor income of SIBTF recipients.

Furthermore, neither of these options would stem the growth in SIBTF applications or bring the program into better alignment with the original objectives. If large numbers of workers who are receiving PTD or LP benefits are capable of working at the same time, this indicates that there are problems with the approach taken in SIBTF to determine combined disability ratings and evaluate whether conditions are "actually labor disabling." Policy changes focused on the root causes of this situation—such as improving the accuracy of disability evaluation or clarifying the meaning of "actually labor disabling"—might address these concerns more effectively and with less potential for unintended consequences.

Consider Whether the SIBTF Program Remains Necessary in Light of Modern Policy and Anti-Disability Discrimination Statutes

Many states that originally adopted subsequent injury programs similar to California's SIBTF program have repealed and discontinued those programs over time. The programs originally offered many protections that have since been provided by other policies and programs that did not exist when the subsequent injury funds were established. California's SIBTF predates both California's Fair Employment and Housing Act (1959) and the federal Americans with Disabilities Act of 1990 (ADA), which directly prohibit disability discrimination in employment. Similarly, the SSDI program (first established in 1956) provides compensation to non-occupational disabilities that was not available when most subsequent injury programs were established.

Some states have also cited the growing financial liability of their subsequent injury fund and a lack of evidence that it incentivized hiring disabled workers as additional reasons for repeal.[2] Since the enactment of the ADA in 1990, 18 states and the District of Columbia policymakers have repealed or allowed their subsequent injury fund to sunset.[3] Policymakers should assess whether these more recent policy changes render California's SIBTF program redundant.

Conclusions

California's SIBTF, once a relatively small program intended to serve a small group of severely disabled workers in the state, has grown significantly over the past decade, both in terms of the number of applicants to the program, current expenditures, and future liabilities. Despite a transformation in the use of the program and the context in which it operates, the underlying statutes guiding the program's use and shaping case law have remained largely unchanged since the 1950s.

The SIBTF has reached a point where any policy action will have significant consequences for workers, employers, and other stakeholders in the state. Leaving the system in its current form will require substantial increases in employer assessments in order to pay the billions of dollars in current and future SIBTF benefit liabilities, as well as increased investments in the administrative costs to evaluate cases and manage the program going forward. This investment will be financed through increased assessments collected from employers across the state. Reforms that would limit eligibility for SIBTF benefits or increase program stringency would require additional investments in administration and management costs but would reduce future liabilities of the program. Such reforms would also impose costs on potential applicants who would no longer be granted benefits as a result of these new changes. Policymakers and stakeholders face these hard choices and trade-offs knowing that any inaction is in effect a choice to maintain a status quo, one with growing financial implications for employers in the state.

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[2] See Legislative Audit Council, *A Review of the South Carolina Second Injury Fund*, March 2007 (finding "no evidence that the Second Injury Fund has an effect on promoting the hiring and retention of the disabled"); Zachary D. Schurin, "Monkey-Business: Connecticut's Six Billion Dollar Gorilla and the Insufficiency of the Emergence of the ADA as Justification for the Elimination of Second Injury Funds," *Connecticut Public Interest Law Journal*, Vol. 7, No. 1, 2007 (finding Connecticut's SIBTF funding reached an estimated $6 billion of liability); and Martin M. Simons, *Analysis of Liabilities of the Georgia Subsequent Injury Trust Fund*, Subsequent Injury Trust Fund, 2005 (finding that the unpaid reimbursement liabilities of the Georgia Subsequent Injury Trust Fund exceeded $1 billion).

[3] Rhett Buchmiller, "Second Injury Funds Nationally and in Missouri – Liability, Functionality, and Viability in Modern Times," *Missouri Law Review*, Vol. 84, No. 3, 2019, p. 860, n. 80, and app. A. Oregon, Wyoming, and Vermont have never had an active subsequent injury fund.

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Chapter 1. Introduction and Policy Context

As the United States' involvement in World War II began to unfold, a concern arose among policymakers across the country that returning veterans would be at a disadvantage when seeking civilian employment if they had been disabled in some way during their service. The issue was not about whether potential employers would be worried that a pre-existing disability could hinder the worker's performance. Instead, it related to the possibility that a work-related injury for a previously disabled veteran would have enhanced financial consequences for a company's workers' compensation expenditures. A simplistic example would involve the loss of two fingers on the right hand due to a workplace accident. For a person in good health, the injury would certainly affect future earnings capacity, but for most workers the loss would not be totally disabling. If, however, the injured worker had previously lost a left hand in combat, the combined effect of the two medical conditions would have far more serious implications. Given the potential for increased workers' compensation liabilities to arise from such incidents, employers could be reluctant to hire those with existing disabilities even if these impairments would have no negative impact on their work.

For many states during this time, the chosen answer to the potential conflict between the provision of adequate compensation for those who have been injured on the job regardless of pre-existing disability and the desire to remove potential impediments to employment for those with disabilities was the adoption of *subsequent injury fund* laws (sometimes called *second injury fund* laws or *multiple injury fund* laws).[4] Such legislation would expressly authorize a state's workers' compensation system to provide an injured worker with disability compensation commensurate with the combined effects of pre-existing disability and the work injury, but the worker's employer would only be responsible for the disability compensation solely associated with the subsequent injury (the loss of the two fingers in the above example) as if it happened to someone without any pre-existing disability (e.g., the missing left hand). A fund would then be used to pay any additional benefits necessary to provide the worker aggregate benefits reflecting the total impairments arising from the combined effect of both conditions. In some programs the state treasury would provide the money for the Fund, in others financial support would come from assessments upon all of the state's employers or the redirection of unpaid workers' compensation death benefits into the Fund due to a lack of qualified beneficiaries. These subsequent injury funds essentially served to spread the risk of enhanced workers' compensation

[4] Some states, including New York and New Jersey, had enacted their subsequent injury programs prior to World War II. However, more than 30 states adopted subsequent injury fund laws during World War II or in the 12 years that followed. See Robert G. Rodden, *Second Injury Funds: Standards and Practices in State Legislation*, U.S. Bureau of Labor Standards Bulletin 190, U.S. Government Printing Office, 1957, pp. 7–8.

liabilities across a large segment of a state's economy (such as taxpayers or businesses) instead of placing it solely on employers that chose to hire people with disabilities.

In 1945 the California Legislature passed its own version of a subsequent injury fund, presently known as the Subsequent Injuries Benefits Trust Fund (SIBTF).[5] In the years between the SIBTF's inception and today, the program has grown from a modest program intended to address the specialized needs of a relatively small segment of the working population into a much larger operation, one now requiring nearly a half billion dollars in annual funding, with an estimated $7.9 billion in current liabilities on pending cases. In the nearly 80 years since its adoption, the landscape for disability policy, workplace conditions, and the overall health of the working population have changed dramatically, and yet the SIBTF program is still largely guided by the same section of the Labor Code outlined at its inception. At the same time, there exists little comprehensive information about how the program has grown—both in terms of the individuals served and the financial costs and liabilities of this growth.

The California Department of Industrial Relations (DIR) solicited proposals for a comprehensive study of SIBTF cases, noting that "there have been sharp increases in both the number of new case filings and total liabilities of the [SIBTF] in recent years," with the information obtained by the effort to be used "to inform future decisions about the program."[6] RAND was selected to perform the requested study.

History of the SIBTF

The 1945 the California legislature amended some existing sections of the Labor Code's workers' compensation provisions and added others. Notably, Labor Code § 4751 would enable certain previously disabled employees who incur a "subsequent compensable injury" to receive "combined" permanent disability (PD) benefits. To be precise, the benefits would consist of those "caused by the last injury," supplemented by those constituting the "remainder of the combined permanent disability." Under Labor Code § 4750 the employer would only be responsible for "that portion due to the [subsequent] injury as though no prior disability or impairment had existed."[7] The remainder of the benefits would be ultimately paid out of the state's general fund as per other aspects of the 1945 law, but eligibility for such enhanced compensation would require that the combination of the prior disability and the subsequent

[5] Stats. 1945, c. 1161. This was not the state's first attempt at dealing with the pre-existing disability problem. In 1929, a "Subsequent Injuries Law" was enacted (Stats. 1929, c. 222) but was declared unconstitutional by the California Supreme Court shortly thereafter due to problems with the funding mechanism. See *Commercial Cas. Ins. Co. v. Industrial Acc. Com.*(1930) 211 Cal. 210.

[6] DIR, *Request for Proposal – Secondary*, RFP 8635-A, April 29, 2022d, p. 5.

[7] Former California Labor Code § 4750, repealed on April 19, 2004, in SB 899. It should be noted that the employer would continue to be fully responsible for the injured worker's medical care, temporary work loss payments, and all other traditional workers' compensation benefits. Only PD benefits are subject to the provisions of Labor Code § 4751.

injuries yielded impairments considered to be 70 percent of those for a totally disabled worker. Importantly, the 1945 law also limited eligibility to workers whose pre-existing disability involved "the loss of, or loss of use of, a hand, an arm, a foot, a leg, or an eye."

Legislative and Case Law Changes Through 1959

Other than occasional technical amendments, the most important changes to the subsequent injury approach adopted by California were made in 1949, 1955, and 1959. The 1949 modification dropped the requirement that the worker seeking enhanced benefits must have at least lost the use of one of the five body parts originally described in Labor Code § 4751. In the aftermath of criticism that even the most minor prior impairments, including ones that appeared to arise from the natural consequences of aging, would now support a subsequent injury claim,[8] in 1955 and 1959 the legislature added new requirements, which still set the main eligibility parameters for the program today. After the last major amendment in 1959, the entirety of the current version of § 4751 reads as follows:

> If an employee who is permanently partially disabled receives a subsequent compensable injury resulting in additional permanent partial disability so that the degree of disability caused by the combination of both disabilities is greater than that which would have resulted from the subsequent injury alone, and the combined effect of the last injury and the previous disability or impairment is a permanent disability equal to 70 percent or more of total, he shall be paid in addition to the compensation due under this code for the permanent partial disability caused by the last injury compensation for the remainder of the combined permanent disability existing after the last injury as provided in this article; provided, that either (a) the previous disability or impairment affected a hand, an arm, a foot, a leg, or an eye, and the permanent disability resulting from the subsequent injury affects the opposite and corresponding member, and such latter permanent disability, when considered alone and without regard to, or adjustment for, the occupation or age of the employee, is equal to 5 percent or more of total, or (b) the permanent disability resulting from the subsequent injury, when considered alone and without regard to or adjustment for the occupation or the age of the employee, is equal to 35 percent or more of total.

A subsequent injuries benefits claim now also has to either (1) involve a pre-existing disability affecting one of the originally described five body parts and involve a subsequent injury that both affects its "opposite and corresponding member" and presents impairments effectively constituting at least 5 percent of those faced by a totally disabled worker or (2) involve subsequent injuries with impairments of at least 35 percent of total disability. The disability percentages in these new requirements are "considered alone and without regard to or adjustment for the occupation or the age of the employee." Around the same time, in an appeal arising from a subsequent injury fund case, the California Supreme Court clarified that an

[8] See, for example, Senate Committee on Labor, *Partial Report Relating to Workmen's Compensation*, Senate of the State of California, 1955, p. 16.

applicant's alleged pre-existing disability must have been "actually labor disabling" in order to establish eligibility for subsequent injury fund benefits. Loosely speaking, this standard meant that the pre-existing disability could have been the basis for workers' compensation permanent partial disability benefits if it had resulted from employment (it should be noted that prior conditions that are asymptomatic, previously undiagnosed, developmental, congenital, or the result of non–work-related incidents or conditions can and do serve as qualified pre-existing disabilities for enhanced subsequent injury benefits).[9]

Though the basic requirements for subsequent injury fund benefits have not changed in the 65 years since the last amendment to Labor Code § 4751, legislative enactments and a California constitutional amendment have had a significant effect on how the funds used to pay these benefits are acquired. SIBTF, the immediate payor for the state's portion of subsequent injury benefits, is a special trust fund account within the state treasury, with the DIR director designated as its trustee. In contrast to the 1945 arrangement, where appropriations from the state's general fund were the primary source for benefit payments, the SIBTF now receives most of its revenues from surcharges (more commonly referred to as *assessments*) levied against the state's employers as a percentage of their workers' compensation premiums. A much smaller portion of total funding comes from the SIBTF serving as the default recipient of workers' compensation death benefits when the deceased worker had no dependents.

One issue that has repeatedly been discussed in the years since the inclusion of subsequent injury benefits in California's workers' compensation system involves the aggregate size of benefits paid by the SIBTF and its predecessors. Even during the decade that followed the enactment of the 1945 legislation, there were complaints that "the cost of the fund has leaped upward steadily" and that "something needs to be done about it."[10] The *Ferguson* case, in 1958, quoted early legislative reports noting that all manner of health conditions were being asserted as the basis for subsequent injury fund cases, leading to concerns that the Fund was turning into a state health insurance plan, contrary to legislative intent. The amendments in 1955 were thus interpreted as "legislative recognition of, and an intention to altogether obviate or at least to strictly limit, the opportunities of converting the Subsequent Injuries Fund into a state health plan."[11]

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[9] *Ferguson v. Industrial. Acc. Com.*

[10] Senate Committee on Labor, 1955, p. 30.

[11] *Ferguson v. Industrial. Acc. Com.*, p. 476.

Recent Growth in SIBTF Cases and Payments

In the late 1990s, a typical year experienced by the SIBTF might involve total payments of about $6.5 million.[12] These annual payments increased somewhat by FY 2004 to about $8 million,[13] but four years later the aggregate payments had doubled, doubled again in seven more years, doubled again in two more years, nearly doubled again in three years, and then doubled again in two years, resulting in $258 million being paid out in FY 2023.[14] Under the current SIBTF funding scheme, employers across the state are the ones most acutely feeling the effects of rapidly increasing expenditures. Assessments for FY 2024 are intended to bring in a total of $488 million in new fund deposits, a considerable increase from the $14 million paid by employers in FY 2015, the $87 million paid in FY 2018, and the $372 million paid in FY 2022.[15]

These sharp rises in both payments from the Fund and assessments for the Fund do not appear to be driven just by growth in new SIBTF cases. While SIBTF case filings have increased sharply in recent years, the average value per case for new SIBTF cases is also increasing rapidly, such that the annual liabilities of the Fund will continue to trend sharply upward for at least the near-term future (about 15,000 SIBTF cases were pending at the end of FY 2020).[16]

There are a number of possible reasons why SIBTF liabilities have increased so dramatically in the last 15 years, in terms of new filings, aggregate annual expenditures, and individual claim values. Changes to apportionment rules in the Senate Bill (SB) 899 reforms in 2004 limited employer liability for pre-existing disabilities and thus may have redirected and incentivized applicants to seek supplemental compensation for those pre-existing disabilities from the SIBTF Fund.[17] It has also been argued that legislative changes over the years that increased PD ratings

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[12] Anthony Archie, Colleen Garot, Daniel Hebenstreit, Liaoliao Li, Brian Pelham, Chandra Pesheck, and Matthew Podgorski, *Crisis in California: Reforming Workers' Compensation*, Pepperdine School of Public Policy, April 2004, p. 34.

[13] The California state fiscal year begins on July 1, so FY 2024 would end on June 30, 2024.

[14] DIR, *Increased Support for SIBTF Program*, Budget Change Proposal 7350-101-BCP-2019-GB, December 26, 2018, attachment II; Commission on Health and Safety and Workers' Compensation (CHSWC), *CHSWC 2023 Annual Report*, DIR, November 2023, fig. 106.

[15] Katrina S. Hagen, *Fiscal Year 2023/2024 Assessments*, DIR, November 29, 2023; Mark Webb, "What's Old Is New Again," *Workers' Comp Executive*, Vol. 32, No. 21, November 16, 2022; Greg Jones, "Little Explanation for Large Increase in SIBTF Costs," *WorkCompCentral*, December 7, 2017.

[16] DIR, *Continued Support for Subsequent Injuries Benefit Trust Fund*, Budget Change Proposal 7350-012-BCP-2022-GB, January 5, 2022a, p. 2.

[17] Among many other changes, SB 899 required that PD evaluations include the *apportionment* of disability to "non-industrial" causes (essentially a determination of the contribution of health conditions other than the workplace injury to a worker's overall impairments). This change made employers liable solely for the PD that was directly caused by the workplace injury, thus reducing the potential PD benefits available in some cases. Because SIBTF liability is not directly affected by SB 889, it is argued that "workers' compensation applicants and their counsel began to look increasingly to the SIBTF to augment their workers' compensation recoveries." See DIR (2022a), p. 1. See also *Escobedo v. Marshalls* (2005) 70 Cal.Comp.Cases 604 (App. Bd. en banc) and *Benson v. Workers' Comp. App. Bd*. (2009) 170 Cal.App.4th 1535.

have had the cumulative effect of making it easier for those who have prior workers' compensation cases and awards to use those awards as the qualifying permanent partial disabilities in an SIBTF case.[18] The Workers' Compensation Appeals Board (WCAB)'s June 2020 decision in *Todd v. SIBTF* has made it much easier both to satisfy the requirements of Labor Code § 4751 and to have a worker declared to be totally disabled.[19]

Another possible factor is that there is essentially no firm statute of limitations for filing an SIBTF case; the case law only requires that the case be filed within a "reasonable amount of time" after the worker is aware of the substantial likelihood of SIBTF liability if not filed within five years of the workplace injury (referred to as the *subsequent industrial injury* [SII]).[20] Growing awareness among applicant attorneys of the SIBTF program and the high value of potential benefits has also likely contributed to the increase in case filings. Employers may have an incentive to encourage the filing of SIBTF cases as a way to limit their own liability in the SII case. Regardless of the reasons for the growth in the SIBTF program and SIBTF liabilities, the sharp increases in new case filings and in SIBTF liabilities revealed a need for more empirical information about what has been happening in the program in recent years—what SIBTF cases look like, how those cases proceed through the system, and what the outcomes are.

Research Questions

Our work is intended to answer the following questions about SIBTF cases active during the previous decade:

1. How have the types of SIBTF cases, filing patterns, PD ratings, litigation practices and expenses, and other factors changed over the past ten years?
2. Are there conclusions to be drawn about the future of the SIBTF program, in terms of benefits to workers, future liabilities, costs to employers, staffing requirements, and other areas, if no changes are made?

Organization of This Report

The next chapter provides an overview of California workers' compensation litigation, with a special emphasis on the process by which SIBTF cases are initiated, reviewed, and resolved. Chapter 3 describes our study methods, including data sources, data collection design, and analytic approach. Chapter 4 provides background descriptive statistics about SIBTF case filings, applicant characteristics, times to disposition, and outcome types. Chapter 5 describes what we

[18] See, for example, Jones (2017) (describing legislative changes from the early 2000s that essentially resulted in "fixed permanent disability awards" and noting that the cumulative effect of prior disability determinations could enhance the value of later subsequent injury claims).

[19] *Todd v. Subsequent Injuries Benefits Trust Fund* (2020) 85 Cal.Comp.Cases 576 (App. Bd. en banc).

[20] *Subsequent Injuries Fund v. Workmen's Comp. App. Bd.* (1970) 2 Cal. 3d 56, 465 P.2d 28.

learned about case-related expenditures made by SIBTF, including benefit payments made to resolve SIBTF cases as well as non-benefit payments to attorneys, medical examiners, vocational rehabilitation (VR) experts, and copy services. Chapter 6 presents the results of our work in estimating total lifetime costs of SIBTF benefits and attorney fees. Chapter 7 discusses the high-level takeaways from our data collection and analysis, with a focus on policy considerations.

Appendix A includes additional information about our methods related to the data collection and analysis. Appendix B provides detailed explanations of our approach for estimating SIBTF liabilities. And Appendix C contains supplemental tables and figures from our analysis that may be of interest to readers with a special focus on specific subjects related to SIBTF cases.

Chapter 2. Background on Workers' Compensation Benefits and Claim Adjudication in California

In this chapter we present a simplified description of the California workers' compensation system. We begin with an overview of benefits available to injured workers; then we provide a description of the usual procedures involved in litigating workers' compensation disputes in the "regular" workers' compensation system—that is, in the vast majority of cases that are not SIBTF claims. Although the focus of this report is on the specialized litigation that concerns SIBTF claims, SIBTF case outcomes are closely associated with separate litigation involving the SII. An understanding of how those SII disputes are resolved is therefore important. Finally, we discuss some of the aspects of SIBTF case procedure that are unique to those claims. Our primary intent is to provide a brief explanation of terms that are relevant to our investigation into the SIBTF program. Readers who are familiar with all of these concepts may wish to proceed to the next chapter.

Workers' Compensation Benefits in California

In the California workers' compensation system, workers with compensable work-related injuries are provided with medical treatment for the injury and may be eligible for several types of disability benefits (also sometimes referred to as "indemnity").[21] The worker may be entitled to one or more of four types of disability benefits:

- Temporary total disability (TTD) benefits are paid to workers who are totally unable to work during a recovery period after the injury.
- Temporary partial disability (TPD) benefits are paid to workers who have returned to work on restricted duty with lower earnings than before the injury.[22]
- Permanent partial disability benefits are paid to workers who are found to have permanent impairment, but are not determined to be totally disabled.
- Permanent total disability (PTD) benefits are paid to workers are found to have permanent impairment and are also determined to be totally disabled.

A fifth type of benefit is available to some workers with permanent partial disabilities:

- Life pension (LP) benefits are paid to workers with a high degree of disability after payment of their permanent partial disability benefits ends.

[21] For further information about benefits available to workers, see DIR, *Workers' Compensation in California: A Guidebook for Injured Workers*, 2016.

[22] TPD benefits are rarely paid and are not discussed further in this report.

TTD benefits, which are the most commonly paid type of disability benefits, provide workers with two-thirds of their pre-injury weekly wage, with the wage used in computing benefits subject to a minimum and a maximum that are adjusted annually. (In 2023, the maximum TTD benefit rate was $1,619.15 per week.)[23] After a three-day waiting period, TTD benefits are paid until the worker is able to return to work, up to a maximum of 104 weeks.

While many workers who experience TD will make a full recovery, some injuries result in PD, as determined through the medical-legal evaluation process. A worker may become eligible for PD benefits when a medical evaluator determines that the worker's condition has stabilized and is unlikely to improve with or without additional medical improvement. The time when the worker's condition is judged to have stabilized and when a PD rating may be assigned is known as the *permanent and stationary* (P&S) *date*.[24] Under Labor Code § 4650, if the full 104 weeks of TD benefits have been paid, and if it appears that the worker is likely to have PD, PD benefits based on a reasonable estimate must begin even if a P&S date has not yet been established.

PD benefits are designed to compensate workers for the loss of earnings capacity caused by permanent impairments resulting from their injuries and are structured very differently from TTD benefits. The amount and duration of permanent partial disability and PTD benefits are determined by a worker's *PD rating* and the worker's pre-injury weekly wage. A PD rating is a number between zero and 100 percent intended to reflect the degree of disability experienced by the worker. PD ratings can be determined after the worker reaches the P&S date; the process through which PD ratings are assigned is discussed in greater detail below.

Depending on the level of the worker's PD rating, three scenarios are possible:

- A worker with a PD rating between 1 and 99 is granted permanent partial disability benefits, which are paid for a number of weeks based on the PD rating.
- A worker with a PD rating between 70 and 99 is also paid an LP after permanent partial disability benefits end, with payments continuing until the worker's death.
- A worker with a PD rating of 100 is paid PTD benefits, with payments continuing until the worker's death.

These types of benefits differ not just in the circumstances that result in their payment and the duration of payments, but also in the amount of the weekly payments made to workers. Table 2.1 below summarizes the eligibility criteria, range of weekly benefits, and other key information for each type of payment.

Permeant partial disability benefits are paid at two-thirds of the worker's pre-injury weekly wage. In contrast to TTD benefits, however, the average weekly wage that is used to calculate

[23] DIR, "DWC Announces Temporary Total Disability Rates for 2023," news release, November 17, 2022c. The weekly rate at which benefits are paid is the rate in effect on the date of injury—that is, the rate in effect during the year in which the injury occurred, not the rate in effect at the time the case is resolved.

[24] This date is also sometimes referred to as the maximum medical improvement (MMI) date.

permanent partial disability benefits is capped at a low value ($435 per week). As a result, the maximum weekly payment for permanent partial disability benefits is $290 per week.

LP benefits are paid to workers with PD ratings of 70 or higher (up to 99 percent) after their permanent partial disability benefits are completed. The weekly payment rate for LP benefits increases with the worker's PD rating, ranging from 15 percent of the worker's average weekly wage at a PD rating of 70 to 58.5 percent of the worker's average weekly wage at a PD rating of 99. Because the average weekly wage used in computing LP benefits is capped at $515.38, the weekly payment for a worker whose pre-injury wage was above this cap ranges from $77.31 to $301.50.

Table 2.1. Types of Disability Benefits, Eligibility, Maximum Values, and Duration

Benefit Type	Eligibility (ratings)	Benefit Rate	Minimum AWW	Maximum AWW	Start Date	Duration	COLA Applied?
Permanent Partial Disability	1–99 percent	2/3 of AWW Currently the max payment is $290/week	$240[a]	$435[a]	P&S date[b]	3–897.25 weeks, depending on rating	No
Life Pension (LP)	70–99 percent	1.5% * (PD rating – 60) * AWW Currently the max is $301.50 for a worker with a PD rating of 99 who earned above $515.38 per week	None	$515.38	After permanent partial disability benefits end	Life	Yes
Permanent Total Disability (PTD)	100 percent	2/3 of AWW Currently, the max. payment is $1,619.15	$364.29[a]	$2428.72[a]	P&S date	Life	Yes

SOURCE: DIR, "Workers' Compensation Benefits," webpage, December 2023a.
NOTE: AWW = worker's average pre-injury weekly wage. COLA = cost of living adjustment. P&S = Permanent and Stationary.
[a] Table reports minimum and maximum AWW in effect for injury dates on 1/1/2024 or later. Available at https://www.dir.ca.gov/dwc/WorkersCompensationBenefits.htm#TDPD, Accessed March 13, 2024.
[b] PD benefits must commence after 104 weeks of TD based on reasonable estimate of PD, even if the worker is not yet P&S.

PTD benefits, which are payable until the death of the worker, are paid at the same rate as TTD benefits: two-thirds of the worker's average weekly wage, with the maximum capped at two-thirds of the SAWW for 2024 ($2,428.72; two-thirds of this is the weekly maximum benefit of $1,619.15). The rate that applies is the rate that was in effect on the date of injury.

While the determination of PD ratings and adjudication of disputes may take some time after the P&S date, a worker with a PD rating above zero is entitled to advances of permanent partial disability or PTD benefits starting after the 104 weeks of TD benefits have been exhausted. These advance PD benefits are paid to the worker while disability evaluation is ongoing.

Finally, on injuries occurring in 2003 and later, Labor Code § 4659(c) provides for a COLA on PTD and LP benefits. The COLA is indexed to the rate of growth in the SAWW. There is no COLA for permanent partial disability benefits.

The differences in payment rates and benefit duration summarized in Table 2.1 mean that PTD benefits are dramatically more generous (and thus more costly to employers and the SIBTF) than are permanent partial disability or LP benefits: The 2023 maximum weekly benefit possible under PTD is currently $1,619.15 per week—over five times the maximum of $290 per week for permanent partial disability or $301.50 for LP benefits. On an annual basis, the payment amounts for a worker with a 2023 injury date who was earning above the maximum average weekly wage for PTD ($2,428.72 per week, or $126,293 per year) would be $15,080 per year for permanent partial disability benefits, $15,678 per year for LP benefits, or $84,195 per year for PTD benefits.

The sharp increase in benefit payments associated with a change in the PD rating from 99 to 100 percent has important implications for the liabilities facing the SIBTF Fund; as we discuss in Chapter 4, changes in case law and other aspects of the SIBTF program have led to large increases in the likelihood that SIBTF claims result in PTD benefits for the worker rather than permanent partial disability or LP benefits. Calculations that illustrate how SITBF Fund liabilities on a case change with ratings and other factors are shown in Chapter 6.

Permanent Disability Ratings in California

In order to understand the SIBTF program, it is also helpful to know the basic structure of PD ratings in California. The approach to disability rating in California is intended to link compensation to the loss of earnings capacity that a worker experiences due to their work-related impairments. Ratings are assigned on the basis of medical-legal reports prepared by evaluating physicians, who can be assigned to cases in one of several ways discussed below.

Since 2005, the Labor Code has specified that disability evaluations should use methods defined in the *AMA Guides to the Evaluation of Permanent Impairment, 5th Edition.* Impairment rating under the AMA Guides emphasizes objective medical evidence of impairment over functional evaluation or other methods viewed as more "subjective," and prescribes methods of evaluation that evaluating physicians should use for each body system and type of impairment.

It is important to recognize that PD ratings (and thus eligibility for permanent partial disability or PTD benefits) in California does not depend in any way on the injured worker's current employment status or earnings. This is different from the approach taken in Social Security Disability Insurance (SSDI), where workers with sustained earnings above a certain threshold lose eligibility for benefits. In contrast, eligibility for permanent partial disability or PTD benefits in California focuses exclusively on the worker's loss of earnings capacity as measured by the PD rating. The California approach avoids the work disincentives posed by disability compensation systems like SSDI where a worker's earnings can result in benefits being reduced or entirely lost. However, an implication is that some workers may qualify for disability

benefits even if they do not actually experience any career interruption or actual loss of earnings due to their injury.

To derive a disability rating from the impairment ratings produced by the AMA Guides, each impairment experienced by a worker is evaluated separately. Impairment scales that are specific to different body systems are converted to a *whole person impairment* (WPI) basis before further calculations. After this step, three further adjustments are applied to convert the AMA Guides impairment rating into a PD rating.

First, an adjustment for *future earnings capacity* (FEC) is applied. This factor, which was originally adopted in 2005 to correct for systematic biases across body systems in the empirical relationship between ratings and earnings losses, was set to a constant of 1.4 for all impairments resulting from injuries occurring in 2013 and later. That is, the FEC adjustment amounts to increasing the AMA Guides rating by 40 percent. Second, an adjustment for age is applied, with ratings being increased for workers over 39 and decreased for workers under 39. Third, an adjustment for occupation is applied; for some occupational groups, this increases the rating and for other occupational groups, there is a downward adjustment

While some deviations have been allowed under case law, such as the *Almaraz*/*Guzman* decision in 2009,[25] the above description generally applies to determination of PD ratings in all regular workers' compensation cases. Two further details of the PD rating process need to be discussed to provide context for the SIBTF program: PD ratings for multiple impairments and apportionment of disability to non-industrial cause.

PD Ratings for Multiple Impairments

After FEC, age, and occupation adjustments, the result is a PD rating for a single impairment. In cases with multiple impairments, California's Permanent Disability Rating Schedule (PDRS) specifies that ratings from impairments to multiple body parts are combined using a formula referred to as the *Combined Values Chart* (CVC) that scales down the maximum possible rating for each additional impairment. For example, two impairments each rated at 50 percent would yield a rating of 50% + (100%-50%)*50% = 75%.

Apportionment of Disability to Nonindustrial Cause

A major change adopted in 2005 (after enactment of SB 899 in 2004) required evaluating physicians to evaluate "apportionment of disability to non-industrial cause." Specifically, SB 899 required evaluating physicians to "make an apportionment determination by finding what approximate percentage of the permanent disability was caused by the direct result of injury arising out of and occurring in the course of employment and what approximate percentage of

[25] *Almaraz v. Environmental Recovery Services / Guzman v. Milpitas Unified School Dist.* (2009) 74 Cal.Comp.Cases 1084 (App. Bd. en banc).

the permanent disability was caused by other factors both before and subsequent to the industrial injury, including prior industrial injuries" (Labor Code §4663[c])

Case Adjudication and Resolution in the Regular Workers' Compensation System

Disputes in the workers' compensation system are addressed in a specialized administrative adjudication system known formally as the Workers' Compensation Appeals Board (WCAB). Workers' compensation administrative law judges (WCALJs) employed by the California Division of Workers' Compensation (DWC) hear cases at the trial level in one of 24 DWC District Offices. In this report, we reserve the acronym WCAB to refer to the panel of seven commissioners who hear appeals. Judges at the trial level are referred to as WCALJs.

Litigating Disputes Involving Traditional Workers' Compensation Benefits

An injured worker has a year from the injury or last payment, treatment, or other benefit to file an *Application for Adjudication of Claim*, which vests jurisdiction over the dispute with the workers' compensation court system and opens a new case.[26] After the regular workers' compensation application is filed, parties can go about the business of arranging medical treatment, obtaining medical-legal reports, and having TD and PD ratings assigned. At this point, applicant attorneys may compose an *attorney demand letter* and send it to the employer. The demand letter typically presents the applicant's view of the facts of the case, attaches what are believed to be relevant documents, and proposes a resolution (typically in the form of a PD percentage that would be used to calculate future PD benefits).

If the case goes to trial, the hearings usually revolve around issues such as the nature and extent of PD, though it can also address the need for future medical treatment; the appropriateness of penalties; and disputes as to whether the injury arose out of the course of employment, jurisdiction, or other threshold matters. Once the matter has been submitted, the judge will issue a decision. The decision consists of three elements: the *findings of fact*, an *opinion on decision* that includes a summary of all the evidence the judge relied upon and the reasons behind the decision, and an *award* of benefits to the applicant or an *order* that the applicant "take nothing" (i.e., a defense verdict). If the judge has ruled in favor of the applicant, the decision is usually called a *findings and award* (commonly referred to as an F&A); if in favor of the defendant, it is usually called a *findings and order* (F&O). An F&A will often include language that approves the payment of attorney's fees to the applicant's counsel out of the PD award.

[26] Many workers' compensation claims are resolved through claims administration processes without any need for adjudication. Typically, a claim becomes "litigated" with the filing of an Application for Adjudication of Claim only when there are disputes or uncertainties as to one or more aspects of the claim.

It is much more common, however, for cases to resolve through settlement. Settlement agreements generally contain information about an agreed-to rating, the total amount of money to be paid to the applicant, the amount of the gross total benefit to be deducted for attorney fees, how outstanding liens are to be resolved, any retroactive TD payments, the defendant's responsibility for future medical care, penalty determinations, VR requirements, and other key issues.

Types of Settlements Used to Resolve Workers' Compensation Cases

Two types of settlements are used in the regular workers' compensation system. A *compromise and release* (C&R), which is a lump sum settlement in which the parties may agree to disagree about key issues (including whether the injury was in the course and scope of employment, the injuries, the PD rating, etc.) and simply agree on a total amount to be paid to the worker in a lump sum. A *stipulations with request for award* (Stipulations) is a settlement in which the parties agree as to certain elements, including a PD rating for the injury and claim being settled.[27] A *Stipulations* settlement is an ongoing benefit paid out over time, based on the PD rating and the value of that rating in terms of the dollar amount of weekly benefits and the number of weeks they will be paid. In both types of agreements, the WCALJ briefly reviews the settlement to determine whether it is an adequate resolution of the worker's claim and injury.

As noted, the key difference between these types of settlements is how the settlement will be paid:

- With a typical Stipulations settlement, PD benefits are paid on a biweekly basis (based on a weekly rate), future medical expenses related to the injury are covered by employer as specified in the settlement, the worker potentially has the right to reopen the case in the future within a limited time period if there is a new and further disability, and the worker may have the ability to petition the court at a later time to have yet unpaid PD payments and medical care costs advanced (*commuted*).
- With a C&R settlement, the total amount to be paid is a lump sum, to be paid up front within a short time after the settlement is approved and may be less a reflection of a specific PD rating than of what the parties agree to as a compromise. In a typical C&R, the right to future medical treatment is waived (sometimes in favor of an additional amount of money added to the lump sum, sometimes with no discussion about how much is for medical). The right to reopen the case is generally waived as well.

In both C&Rs and Stipulations, attorney fees are deducted from the gross amounts offered.

[27] It is also possible for multiple claims involving multiple injuries (or claims filed against multiple employers for the same injury, such as in cases involving cumulative trauma) to be resolved at the same time.

SIBTF Eligibility and PD Rating in SIBTF Cases

In order to qualify for benefits from the SIBTF, a worker must meet certain requirements as to the nature and severity of the SII, as well as the level of PD resulting from the combination of the PD resulting from the SII and pre-existing permanent partial disabilities (PPDs). The statutory requirements are shown in the text box below.

Eligibility Requirements for SIBTF Benefits

In order to qualify for compensation from the SIBTF, a worker must meet certain requirements as to pre-existing disabilities, the nature and severity of the SII, and the severity of the combined PD rating for the combined PD from the SII and PPDs. These requirements, as noted above in the Summary and in Chapter 1, are set forth in Labor Code § 4751. They are:

1. The applicant had one or more pre-existing permanent partial disabilities (PPDs) that were actually labor disabling at the time the applicant suffers a subsequent work injury.
2. The applicant suffered a subsequent compensable work injury, referred to in this report and in the SIBTF program as a subsequent industrial injury (SII).
3. The permanent disability resulting from the combination of the pre-existing permanent partial disabilities (the PPDs) and the subsequent industrial injury (the SII) *is greater than the permanent disability resulting from the SII alone*.
4. The permanent disability resulting from the combined effect of the SII and PPDs together is rated at least *70 percent or higher*.
5. The permanent disability resulting from the SII alone, without adjustment for age or occupation, was either: (1) at least *35 percent*, or (2) was at least *5 percent* and affected a hand, an arm, a foot, a leg, or an eye that is "*opposite and corresponding*" to a body part that had prior permanent partial disability.

Case law has clarified that the pre-existing disability also needs to be "actually labor disabling." In general, this principle means that the pre-existing disability must have been such that it could have been the basis for workers' compensation permanent partial disability benefits if it had resulted from employment. No other restrictions on the cause or nature of the pre-existing disability are imposed, however: health conditions that are asymptomatic, previously undiagnosed, developmental, congenital, or associated with aging can all be considered pre-existing disabilities that qualify the worker for SIBTF benefits.

PD Ratings in the SIBTF Program

For a worker who meets the requirements for SIBTF eligibility, the compensation owed by the SIBTF is defined as the difference between the benefits owed for the total PD rating resulting from the combination of the PD from the SII and the PD from the pre-existing disabilities and the amount owed for PD benefits on the SII alone (which is paid by the employer). Any compensation the worker has received from other sources for the pre-existing disability is also counted as credits that reduce the SIBTF's liability, as we discuss further below.

The determination of PD ratings for purposes of an SIBTF case differs from how ratings are determined in regular workers' compensation cases in several important ways that affect both eligibility for payments from the SIBTF Fund and the type and level of benefit payments made to

the worker. We describe these unique aspects of PD rating in SIBTF cases before turning to how benefits on an SIBTF case are calculated.

How SIBTF Handles Adjustment Factors Used in the PD Rating Process

As noted above, adjustment factors for age, occupation, and future earnings capacity are applied to derive a PD rating from the AMA Guides rating assigned to an impairment. There are two important differences between SIBTF cases and regular workers' compensation cases in how these adjustments are applied.

First, Labor Code § 4751, quoted above, specifies that the PD resulting from the SII (the 35-percent or 5-percent "opposite and corresponding"), for purposes of determining the threshold eligibility requirements for SIBTF, is to be determined "alone" and without adjustment for age or occupation. Thus, these adjustments do not apply when determining PD from the SII for purposes of SIBTF eligibility.

Second, § 4751 does not address whether the FEC applies. This is unsurprising given that § 4751 has not been amended since 1959 and the FEC was first adopted in 2004. However, reforms enacted as part of SB 863 (2012) increased the FEC for most impairments by setting it to a constant factor of 1.4 for all impairments. This means that the impairment rating is increased by 40 percent. Because § 4751 does not exclude consideration of the FEC, the WCAB has held that the FEC should apply in SIBTF cases even though the adjustments for age and occupation do not apply. This results in higher PD ratings for purposes of determining the threshold eligibility requirements in relation to the PD resulting from the SII.

Apportionment of Disability to Nonindustrial Cause

As noted above, evaluating physicians have been required to evaluate apportionment of disability to non-industrial cause since 2005. An implication of the concept and rules around apportionment, in relation to SIBTF cases, is that the portion of a worker's PD apportioned to non-industrial causes, if any, could be evidence of "actually labor disabling" PPDs creating eligibility for SIBTF benefits. We were unable to collect reliable data from SIBTF case documents on the role of apportionment in the SIBTF process, but it is plausible that the reform of apportionment rules in 2005 may have helped set the stage for more cases to qualify for the SIBTF.[28]

[28] Some observers have noted that apportionment also creates opportunities for abuse to arise from collusion between defense and applicant attorneys. Both sides in the SII might agree to a high PD rating with a high level of apportionment to improve the strength of the worker's case for SIBTF benefits—which are not paid by the employer in the SII—as an inducement for the worker to accept a settlement. We were unable to directly examine this particular form of abuse in this study.

Combining Disabilities and the *Todd* Decision

As discussed above, the PDRS specifies a formula that is used in the regular workers' compensation system for combining ratings of two or more impairments or two or more disabilities, laid out in the CVC. An alternative method that is more favorable to injured workers is to simply add ratings for different body parts or for different injuries. This approach, which can be proposed by applicants' attorneys, was sometimes upheld by WCALJs in SIBTF cases even though it is not supported by the PDRS.

In June 2020, the WCAB decision in *Todd v. SIBTF* held that simple addition was the correct method to use for combining SII and PPD disability ratings in determining SIBTF eligibility and benefits. After publication of this decision, addition (instead of the CVC) became the standard method used in SIBTF cases.[29] This now results in many more SIBTF cases reaching 100-percent PTD. It also means that it is now far easier and far more likely for workers to reach a 100-percent PTD rating in an SIBTF case than in a "regular" case (which may create incentives for applicants and employers to settle in a manner that mitigates employer liability to the benefit of the worker by transferring liability over to the SIBTF Fund and creating a higher likelihood of 100-percent PTD benefits).

Applicability of the PPDs

A key issue in the SIBTF case is whether the applicant worker can establish that he or she had PPDs, and, if so, whether the alleged PPDs were "actually labor disabling." Though much of the concern about pre-existing disabilities arising from World War II was about lost limbs and other impairments caused by specific traumatic injuries, the types of PPDs commonly alleged in recent SIBTF cases include many chronic conditions that are highly prevalent in the adult population. As we discuss in Chapter 4, examples include arthritis, asthma, diabetes, gastroesophageal reflux disease (GERD), headaches, hearing loss, heart disease, hypertension, sleep disorders, and obesity. Psychiatric impairments are also commonly alleged in SIBTF cases. While some of these conditions (especially psychiatric impairments, hearing loss, and asthma) can arise from workplace injuries and are frequently seen in the regular workers' compensation system, others (such as diabetes and GERD) are not.

The standard for determining what constitutes a PPD and whether it was actually labor disabling at the time of the SII is not well defined. Section 4751 of the Labor Code does not contain any clarifications of this question, and the case law over the years has lent only slightly greater illumination. In general, the hurdle for designating a claimed PPD as labor disabling does not seem to be a particularly difficult one to clear, assuming that a medical report is written to say that the worker was impaired in some way by the medical condition.[30]

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[29] *Todd v. Subsequent Injuries Benefits Trust Fund*.

[30] See, for example, *Cailliez v. Subsequent Injuries Benefits Trust Fund* (2022) No. ADJ7609168, 2022 WL 3098550.

SIBTF Case Filing and Adjudication

To get SIBTF benefits, an injured worker needs to file a case-initiating document with the WCAB called the *Application for Subsequent Injuries Fund Benefits* (which we refer to as the *SIBTF application*). The process for an SIBTF case roughly parallels how litigation works for regular workers' compensation cases, commencing with the applicant or their lawyer submitting an initial filing, followed by medical-legal reports, settlement demands, dispositions by settlement or trial, and finally benefit payments to the applicant if successful (dismissals of SIBTF cases may also occur).

The SIBTF application may be filed either after the SII case been resolved, or while the SII case is still pending. As reported in Chapter 4, in the earlier years of our study period, SIBTF cases were more typically initiated after the SII case was resolved; in more recent years, it has increasingly been seen that SIBTF cases are filed while the SII case is still pending. If the SIBTF application is filed while the SII case is still pending, it will essentially remain dormant until the SII case is resolved.

How an SII case is resolved determines whether there may be potential eligibility for SIBTF benefits, as is clear from the list of eligibility requirements above. A dismissal of the SII case without any subsequent refiling essentially makes the SIBTF case moot, as it suggests that the SII is not a compensable injury under California workers' compensation law. A similar result would occur if the outcome of the SII case was an F&O ordering that the applicant take nothing. SIBTF cases could proceed with other resolutions of the SII case: an F&A, Stipulations, or C&R. In Stipulations or F&A resolutions, a WCALJ determines an official PD rating for the SII, which would essentially eliminate any argument about that component of the combined disability calculation (a prior SII rating of less than 35 percent would also make a successful SIBTF claim unlikely). (A PD rating agreed to in Stipulations between the applicant and the employer on the SII, however, is not binding on the SIBTF for purposes of the SIBTF claim.) In contrast, a settlement in the SII case by a C&R would likely mean that the issue of what degree of PD impairment resulted from the SII was the subject of dispute and not resolved.

There is no firm (i.e., set by statute) limitations period for the filing an SIBTF case. Under applicable case law, an SIBTF claim must be filed within five years of the SII, if the worker knew or reasonably should have known of their potential eligibility for SIBTF benefits. If the worker did not know of their potential eligibility for SIBTF benefits during that five-year period, then the application must be filed within a reasonable time after the worker becomes aware of such eligibility, or reasonably should have become aware, based on the terms of resolution of the SII.

This standard results in many SIBTF cases being filed many years after the SII. It is also often the case that the SII case is not resolved for a number of years, during which the SIBTF

case remains dormant. It is not unusual for SIBTF cases to be filed and/or finally moved toward resolution 10 to 15 years after the SII.[31]

SIBTF Claims Evaluation

SIBTF claims examiners—formally designated as *workers' compensation consultants* (WCCs)—are tasked with the job of reviewing applications received, requesting supporting documentation and other materials from applicant's counsel, calculating the Fund's possible liability, and conducting settlement negotiations (typically through counsel). The actual defense of a claim against the SIBTF case, as litigated and adjudicated in proceedings before WCALJs, is performed by the attorneys with the DIR *Office of the Director Legal Unit* (OD Legal).

One tool that WCCs commonly employ to get a sense of how much a case resolution by settlement or trial is going to ultimately cost the Fund is to enter certain key values (such as the worker's pre-SII salary, P&S dates, PD ratings, SSDI payments, etc.) into a form. For the purposes of our study, we referred to this form as an *SIBTF case workup*.[32] Workups are not official documents, but for purposes of this study they were a good source of information for understanding the most important factors and issues that are considered in an SIBTF case evaluation in determining both eligibility and potential liability of the Fund. The documents were useful, in particular, in cases that were not yet resolved or that were resolved by C&R where only the lump sum settlement amount was in the C&R document.

When the WCCs need to determine the exact amounts and timing of SIBTF benefits for an SIBTF case that has been resolved, they enter the necessary information into an Excel file that we call an *SIBTF Benefits Calculation Worksheet*. One purpose of the benefits calculation worksheet is to automatically produce a set of statements about SIBTF benefit amounts and timing that can be copied and pasted into what we call the *SIBTF Benefits Notice* letter. The benefits notice letter, intended to be mailed to the applicant's attorney, is a public version of the calculations performed by the SIBTF's WCCs, and it explains how much the attorney will get as a fee, how much upfront cash the applicant will receive (in retroactive PD benefits that have accrued between the date when SIBTF liability starts and the date of resolution), how much was deducted for credits, how much the applicant will receive in bi-weekly checks, when the payments will begin, and how long the payments will continue. Because settlements agreements and judicial awards often only describe the foundational aspects of a case resolution (such as the combined PD rating), it will be the benefits notice letter that provides the worker with the first complete description of the size and timing of SIBTF benefits.

These details of the claims evaluation process dictated the structure of our data collection efforts, which we describe in the next chapter.

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[31] The "Tallcut" rule was described in *Subsequent Injuries Fund v. Workmen's Comp. App. Bd.*

[32] It should be noted that the documents that serve as SIBTF case workups are variously described as a "settlement workup," "settlement evaluation," "case evaluation," or "request for settlement authority."

SIBTF Case Resolution and Benefits

An SIBTF case is resolved in one of five ways:

1. settlement through a C&R (lump sum)
2. settlement through Stipulations (where the PD ratings are agreed to with benefits to paid out over time)
3. F&A (a judgment issued by the WCALJ awarding benefits based upon a PD rating stated in the decision),
4. F&O (a judgment issued by the WCALJ finding the applicant failed to establish a right to SIBTF benefits)
5. abandonment and dismissal or administrative closure (when the applicant fails to take any action the claim for a lengthy period of time, or when the applicant dies, or for whatever reason it appears the claim has been abandoned).

How SIBTF Benefits Are Determined

Under Labor Code § 4751, a worker eligible for SIBTF benefits is to receive compensation reflecting the degree of disability (i.e., the PD rating) resulting from the combined effect of the SII and the PPDs. SIBTF benefit payments are determined by calculating the disability benefits that would result under the combined PD rating (for the SII and the PPDs) and then reducing that amount to account for two other sources of compensation:

- PD benefits paid by the employer in the SII case
- credits and reductions for other sources of disability compensation that the worker receives for the PPDs.

That is, the SIBTF is responsible for paying the difference between the disability benefits owed under the combined PD rating and the compensation the worker already has received, is receiving, or will receive for the SII and the PPDs.

If the resolution is in the form of a settlement by Stipulations or F&A, the SIBTF will make regular benefit payments to the worker reflecting this statutory liability. Because all cases eligible for SIBTF benefits have a combined PD rating of 70 or higher, all SIBTF benefits (other than lump sum C&R settlements) make the worker eligible for lifetime benefit payments that continue until the worker dies, either in the form of an LP or in the form of PTD benefits.

If the resolution is in the form of a C&R, the SIBTF will make a lump sum settlement payment and will not make ongoing benefit payments. Because C&Rs are used to resolve cases where there are unresolved disputes, including cases where the applicant has a low chance of succeeding at trial, the amount of the lump sum benefit made under a C&R is often much lower than the present value of the liabilities that would be associated with a successful claim.

Benefit Start Dates and Retroactive Payments

As noted above, it is possible for workers to file an SIBTF application many years after the SII. It is important to recognize that, as in the regular workers' compensation system, an eligible

worker's entitlement to permanent partial disability or PTD benefits paid from the SIBTF begins on the P&S date, or earlier if the 104 weeks of TD benefits have been exhausted before the P&S date, even if the SIBTF claim and its resolution occur several (or many) years later.[33] In these cases, the SIBTF may be responsible for paying accrued benefits to the worker as a lump sum. These retroactive benefit payments can be large, especially in cases where the worker's combined PD rating makes them eligible for PTD benefits.

Credits and Reductions

Theoretically, SIBTF is the *secondary* payer when disability benefits have been paid on account of the worker's PPDs from other sources. By statute (Labor Code § 4753), SIBTF is required to deduct for any sums that have previously been paid to the worker on account of the same PPDs the worker alleges as the basis for SIBTF eligibility. In SIBTF parlance these deductions are referred to as *credits* and would include, for example, a tort settlement that was paid for a prior car accident that caused all or some of the PPDs the worker later alleges in the SIBTF case. Credits would also include amounts paid for disability by most government programs, with some exceptions. Typical sources of credit include

1. any SSDI payments that have previously been paid to the worker for disabling conditions that the worker is now alleging as a basis for SIBTF eligibility
2. prior workers' compensation awards or settlements involving the PPD in some way; for example, a prior award paid for a previous work injury (other than the SII) that the worker is now alleging as part of the PPDs that support the SIBTF claim
3. tort compensation from a settlement or verdict in a personal injury case (such as an auto accident) related to the PPD
4. other disability pensions (such as those specially provided by employers, as long these pensions include moneys related to the PPD).

The deductions are mandatory in §4753. This means that an SIBTF benefit that is the product of an Stipulations or F&A will usually describe how SIBTF's share of combined PD payments will be reduced by past or future related benefits or compensation received by the worker. A C&R will typically not discuss credits because the size of the lump sum payment the worker will receive would be assumed to already reflect the credits.

Note that these credits do not include any pensions or awards that are simply related to retirement, such as regular Social Security retirement benefits or a company's retirement pension. Veteran pensions arising from service-connected disabilities, even if related to the PPD, are also excluded from consideration as credits.

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[33] In *Baker v. Workers' Comp. App. Bd.* (2017) 13 Cal.App.5th 1040, the court held that SIBTF's liability commences at the same time as the employer becomes liable to commence PD payments, even if that is before the P&S date. Subject to certain exceptions, Labor Code § 4650 requires the employer to commence PD payments based on a reasonable estimate of PD after the 104 weeks of TD have been exhausted, even if the worker is not yet P&S and the final PD rating has not yet been determined.

SIBTF Non-Benefit Payments

SIBTF is also required to pay for certain ancillary expenses associated with claims brought against the Fund in a manner similar to the responsibilities of an employer in routine workers' compensation claims. These include expenses associated with obtaining medical or vocational reports, interpreter services, and services related to retrieving and copying all documents relevant to a claim and providing them to the worker. Such costs are paid by SIBTF directly to the service provider and may be incurred even in SIBTF cases in which it is determined that the worker is not eligible for SIBTF compensation. For cases in which the worker is eligible for benefits, these ancillary costs, with the exception of attorney's fees, do not affect what the worker will receive as benefits.

Chapter 3. Study Methods

Our examination of SIBTF claims and outcomes was shaped by the parameters of the study as specified by DIR. Our first need would be to answer the high-level research questions previously described in Chapter 1, such as those related to the conclusions that might be drawn about the future of the SIBTF program. Our second need would be to answer a series of specific questions posed to us by DIR about SIBTF cases and programs trends. There was considerable overlap in the subject matters of interest in both the high-level research questions and the specific DIR requests, but also unique aspects that would require an individually tailored approach.

We initially mapped out what types of data would be required to address our analytical needs and then familiarized ourselves with the transactional and document-based records maintained by DWC for the management of litigation of SIBTF cases before WCALJs in the District Offices of DWC (which are the trial level courts of the WCAB). Once we had a better sense of the scope of information that would be available either by extraction from existing data or by reviewing electronic and hardcopy documents, we crafted a sampling plan that would examine SIBTF cases active at any point from 2010 through 2022 (our *study period*). Analysis of transactional information available in electronic databases was performed on the full set of cases in the study period, while a stratified subset of that sample was subjected to eyes-on abstraction to collect additional information not documented in the electronic databases. The findings described in Chapters 4–6 draw from both sources, as well as our examination of aggregate information requested from DIR and internal documents maintained for the use of DIR's WCCs.

Data Sources

Data Element Identification

We identified various data elements we believed would adequately inform our analysis. For example, for the specific DIR request that RAND identify for "each year from 2010 through 2022, the total number of open cases that were pending at the start of the year," we determined that we would need to examine the following data elements for each case in our sample: (a) the date an SIBTF case was opened, (b) each of the "events" entries recorded in DWC's case management system (CMS) that describe some type of activity or status change for the case, (c) the date that each such event was recorded, and (d) whether an event entry indicated the case was active or closed. Using these data elements, we outlined the following analysis plan: "For each year in the study period, count only those cases that have a date opened prior to January 1 of that

year and that either have an event entry indicating a case closure with an associated date on or after January 1 of that year or that lack any identifiable closing event."

For many specific research questions, we discovered that alternative data elements could be used to help inform our analysis. For example, to answer the specific DIR question of whether "the applicant obtained additional medical-legal reports, after the resolution of the underlying subsequent industrial injury (SII), solely for purposes of the SIBTF claim," we would need to know if there was any evidence in the record of a new medical-legal report following the end of the associated SII case. We decided to look for either an indication of any payment made by DIR to a medical provider while an SIBTF case was active or an indication that a medical report was filed in an active SIBTF case. Multiple approaches for understanding what happened in these cases and why were identified, informed by our assessments of the availability, quality, and reliability of necessary data elements.

Structured Data from EAMS

The CMS that DWC maintains for tracking and managing litigation of workers' compensation cases, which occurs at the trial level in DWC District Offices before WCALJs, and for supporting DWC's administrative duties relevant to the workers' compensation claims associated with those cases is known as the *Electronic Adjudication Management System* (EAMS). EAMS was in use throughout our study period. There are public sections of EAMS that function much like any other electronic court filing systems. Parties and counsel submit case filings to the WCALJs electronically through EAMS, and EAMS can be accessed to search for cases or parties and to view public case filings. EAMS is also used for purposes that extend beyond the filed pleadings and other public documents in litigated cases. For example, DWC uses EAMS to record payments made on behalf of SIBTF for PD benefits taking place years after an SIBTF case has been closed. Non-public portions of EAMS are also used internally by DWC employees in the SIBTF Claims Unit for saving internal notes, privileged communications, confidential case evaluations, and similar such documents. Other sections of EAMS are used for the recording of various other kinds of financial transactions. For our study, we used EAMS for three purposes: (1) obtaining information about what took place in the SIBTF cases in our sample, (2) obtaining information about what took place in the SII cases associated with those sampled SIBTF cases, and (3) obtaining transaction and descriptive information about payments and participants in the workers' compensation process.

With DIR's assistance, we familiarized ourselves with the use of EAMS and its data structures, and then presented the DIR information technology team with an extensive but preliminary list of EAMS fields that would need to be extracted from the system and provided to us for our initial work. We then analyzed the data to determine how complete and reliable they were, and as needed modified our research approach to account for any issues that were identified. Once our list was finalized, DIR provided us with our requested EAMS fields for each case in our sample. The resulting delivery included extracts from EAMS associated with the

sample SIBTF cases as well as for all regular workers' compensation cases that appeared to be related to our sample cases, and thus could potentially be the related SII case. In order to adhere to the project privacy and confidentiality requirements, the original extract was stored within the DIR network and only a deidentified version was copied to RAND's computing environment. Additional information about how this sample was drawn is provided below.

Document Filings from FileNet

While EAMS provided a rich source of information for our work, the system is most useful for a high-level analysis of case flow. For example, electronic data extracted from EAMS could tell us that an F&A was issued in an SIBTF case, but not what combined PD rating was used as the basis of the benefit. For such granular information, we would essentially need to read the F&A and record the rating for use in subsequent analyses.

Even though some pleadings filed in EAMS are based on a form with fields that the user fills before filing, they are considered to be unstructured information sources. Unstructured sources require additional resources to collect the data and populate it into a structured data file, a process we refer to as *abstraction*. An example of a specific DIR research question requiring data elements that could not be obtained from EAMS and would therefore need to be abstracted would be the request for RAND to describe the "nature of the prior permanent partial disabilities . . . specified in the SIBTF application (all conditions as listed in the Application)."

One important component of EAMS is the document management system used by DWC for receiving, storing, and displaying litigation-related materials such as C&Rs and medical-legal reports. This system, known as *FileNet*, contains electronic versions of all pleadings and other documents filed with the WCAB for both regular workers' compensation cases and SIBTF cases.

To improve the efficiency of our abstraction process, the DIR Office of Information Services team was able to extract all FileNet documents associated with SIBTF cases that were in our sample's stratified subset intended for the abstraction component of our data collection efforts. Metadata about these documents would be provided as well. During the abstraction we examined each case's document depository in order to identify a set of eight specific document types we felt would be most useful for our work:[34]

- SIBTF applications
- F&As
- C&Rs (and associated judicial approvals)
- Stipulations (and associated awards)
- attorney demand letters
- case workups
- benefits calculation worksheets

[34] We initially also included SIBTF F&Os and medical-legal reports in our abstraction effort, but, after pilot testing, we determined that the information we sought from these sources would already be available from EAMS or would have abstracted from one of the eight document types.

- SIBTF benefits notices.

Because these documents are not consistently machine-readable (many are scanned copies with handwritten entries), collecting desired data required a process of abstraction. PhD candidates at the Pardee RAND Graduate School inspected each document and abstracted information from them for inclusion into a dataset that could be used for our analyses. Additional information about this abstraction is provided below.

Utilizing Both EAMS and FileNet Data

Some of the data elements we needed for our analyses could be found in both discrete (structured) data such as that available from electronic databases within EAMS and abstracted (unstructured) data from EAMS FileNet documents. In such instances, if we concluded that the discrete data was complete and reliable, we used the discrete data. If instead there were concerns with the completeness or reliability of the discrete data, we also obtained the equivalent element available from the abstraction.

We then mapped desired data elements to each of the eight document types and developed abstraction instruments to organize the collection of the data from the documents. All document types contained multiple data elements of interest, while many such elements would be available in multiple document types. Despite such duplication, we felt that the best policy for the abstraction would be to collect certain particularly important data elements whenever they were available in an examined document. For example, the PD percentage for the underlying SII might be found in an SIBTF *case-resolving document* in favor of the worker (i.e., an F&A, C&R, or Stipulations),[35] the SIBTF case workup, and the SIBTF benefit calculation. Capturing that element whenever it appeared allowed us to use the source that we felt was most reliable for our work. In this example, we would prioritize the use of a case-resolving document for this information, but if the SII PD rating was not available, as is often true with a C&R, we would rely on the SIBTF benefit calculation first and then the SIBTF case workup if necessary. In Appendix A, we provide full documentation of the hierarchy we applied in choosing data elements across various documents.

Other Sources of Information

We learned from the SIBTF Claims Unit team that in some instances WCCs do not scan their personal case workups (which are not filed in court) for long-term storage in FileNet's SIBTF case holdings, but instead retain them on their individual SIBTF shared drive accounts. Accordingly, we asked SIBTF to ask the WCCs to make copies of case workup documents on those drives for the SIBTF cases in our stratified abstraction subset and provide them to us. Our

[35] An F&O or an order dismissing an SIBTF case is also a case-resolving document, but our interest here is those that require the payment of SIBTF benefits to an injured worker.

abstraction of case workups would first utilize these personal copies if available, and if not, then look in the folders we received from FileNet.

Another source for information used in this work was the SIBTF Claims Unit managers and staff. We asked and were given aggregate data on the counts of WCCs employed by DIR during our study period years as well as annual counts of appearances in SIBTF cases before the WCAB by OD Legal attorneys.

Sampling Approach

Full Study Population

We asked DIR to provide us with EAMS records for all SIBTF cases that were considered to be in *open* status at any time from January 1, 2010, through December 31, 2022. In EAMS an SIBTF case is considered to be open either if benefit payments continue to be made or if the case has not been *resolved*. Our request yielded data files describing 29,749 SIBTF cases, approximately split between resolved and unresolved matters. As described more fully in Appendix A, we dropped 2,702 cases from the extract for technical reasons. As such, our full study population consists of 27,047 SIBTF cases. These are the cases that we used for analyses that exclusively involved EAMS data.

Abstraction Subset

We focused our individual case abstractions on a stratified random subset of our full study population. The goals of our sampling approach were (1) to ensure that we drew sufficient claims of all types and years to have a representative sample of all cases in the study population while also (2) prioritizing cases of highest interest to DIR in order to utilize our research resources most efficiently. We used EAMS data to organize the full study population into several strata to guide our sampling and prioritize the cases that are most important for understanding SIBTF cases, trends, and liabilities: cases with benefits, especially cases resolved since the *Todd* decision in 2020.

As described in Appendix A, we sampled unresolved cases that were not *abandoned*—that is, cases that (a) were without an SIBTF resolution by the time the data was extracted from EAMS, (b) had an SII resolved in 2017 or earlier, and (c) had no observed activity or payments recorded in EAMS after 2017—and cases closed without benefits at a "baseline rate." Cases resolved with benefits, which were of greatest interest because they contain the most information, were sampled at roughly three times the baseline rate among cases resolved before *Todd* and at five times the baseline rate among cases resolved after *Todd*. Abandoned cases were undersampled at approximately 25 percent of the baseline rate. Following this sampling scheme (see Table A.1), our abstraction subset would consist of approximately 12.5 percent of cases resolved with

benefits after the *Todd* decision and 6.7 percent of cases resolved with benefits before the *Todd* decision. A total of 1,047 SIBTF cases would comprise our abstraction subset.

To develop representative estimates from this stratified random sample, we defined base weights as the inverse of the probability of selection. To better match population totals by year of SIBTF application, we adjusted the base weights using raking to match the distribution of SIBTF application years observed in the EAMS data for the full study population. Table A.3 shows that weighted estimates from our sample closely match case characteristics observed in EAMS for the full study population, both for characteristics used in the weights (case resolution and SIBTF application year) and for characteristics not used in the weights (age and date of injury).

SIBTF Case Document Abstraction

The electronic copies of case documents we received from DIR were separated into individual case folders, which included a file that listed useful metadata (e.g., document name, document number, document type, date received, and date uploaded). In order to adhere to the project privacy and confidentiality requirements, the documents were maintained exclusively within the DIR computing network, and identifying data, such as SIBTF case numbers and claimant names, were not abstracted. To identify the cases, each case was assigned a unique study ID. A roster was then created using the study IDs to identify cases to be abstracted.

Following the collection of the sample documents and associated metadata, we developed a detailed abstraction guide and refined our abstraction instruments. Abstraction was accomplished by populating data into Microsoft Forms. A separate form was created for each document type, guiding the abstractor to populate each required data element from each document. The forms enabled the collection of over 600 potential data elements from each case. The data from the forms was exported into Excel files.

The team began pilot testing abstraction with a small selection of cases. We analyzed the resulting data, and once we were satisfied the process produced consistent and reliable results, we began abstraction in earnest. We assembled a team of five graduate student abstractors and assigned batches of cases to each abstractor. Each abstractor was trained with the abstraction guide, began with pilot cases, and abstracted in earnest only after a senior member of the research team reviewed the abstractor's cases to ensure consistency. Throughout the process, we continued to sample a number of each abstractor's cases for quality control. Weekly research team meetings were held with abstractors to discuss issues and questions that arose. As noted above, a total of 1,047 cases were abstracted, over the course of four months.

Analytic Methods

Weighting

Estimates in this report largely consist of descriptive statistics calculated using EAMS data, abstracted SIBTF case document information, or a combination of both sources. Estimates using EAMS data are unweighted since such estimates already describe our full study population. All estimates using SIBTF case document information use the analysis weights described above to deliver valid estimates of quantities in the full study population. Readers should consult table sources to determine the data source used for specific analyses; Appendix A provides additional description of the data sources used to construct specific variables used in the report. Generally, Chapter 4 uses a mix of EAMS and SIBTF case document data, while Chapter 5 exclusively uses SIBTF Claims Unit transactions data (a subset of the EAMS data described further in Appendix A). Chapter 6 primarily relies on inputs from SIBTF case document data.

Liability Calculations

We estimated the total liability of both resolved and unresolved cases for the full population in our study period. Although our analysis sample focuses on cases that were in the system as of the end of 2022, we use information on the status of cases as of the time of data collection in May 2023 when calculating liability. This allows us to incorporate the most current information available on payments and resolutions into the liability calculations. For cases that were resolved as a C&R, we took the total value of the C&R lump sum settlement to reflect the full liability for the case. To calculate liabilities arising from Stipulations and F&As, we used abstracted data on key benefit inputs and used benefit schedules to calculate each type of benefits that the worker would be eligible for at each stage of the lifetime benefit. Using information on the worker's age and assumptions about life expectancy, we calculated the stream of benefits for the rest of the worker's life, and then discounted these values back to the point of case resolution. We additionally calculated the payment amount that would be due to the worker at the time of case resolution due to benefits that accrued between the P&S date and the SIBTF resolution date. Finally, for cases that were unresolved at the time of our data collection, we developed a prediction algorithm to predict the likelihood of three possible outcomes occurring in the case: dismissal, resolution with benefits with a rating less than 100 percent, and resolution with benefits with a rating of 100 percent. Then, we calculated an expected value of total liability by multiplying the predicted probabilities of each outcome by the average value of observed liabilities in each possible outcome. Because the likelihood of case resolution with benefits and the likelihood of a 100-percent rating have changed over time, we trained the prediction model only on cases that resolved in 2020 or later. We explain each of these steps in detail in Appendix B.

The base liability calculations rely on data from our abstracted sample where we were able to collect data on inputs critical to the calculation including ratings as well as affected body parts for the SII and PPD. We use sampling weights to extrapolate total liabilities from our abstracted sample to the full population of SIBTF cases.

Chapter 4. SIBTF Case Volumes, Applicant Characteristics, and Outcomes

This chapter provides basic descriptive statistics about SIBTF applications, applicant characteristics, and case outcomes since 2010. Payments made by the Fund and future liabilities associated with currently pending SIBTF cases are examined in later chapters.

Trends in Applications, Resolutions with Benefits, and Pending Case Volumes

Figures 4.1–4.3 describe the SIBTF caseload by year between 2010 and 2022. Figure 4.1 depicts the number of new applications filed by year; Figure 4.2 shows the number of cases resolved by year by type of resolution (C&R, Stipulations or F&A, or Dismissal), and Figure 4.3 shows the number of cases pending at the start of the year. Figures 4.2 and 4.3 include cases that were pending at the start of 2010 in addition to new applications filed in 2010 and later years.

Figure 4.1 shows that, between 2010 and 2014, around 850 new SIBTF applications were filed per year. The volume of applications has grown steadily since 2015, however, reaching around 2,000 applications per year by 2020. Application volumes in 2021 (2,650 applications) and 2022 (2,448 applications) were even higher.

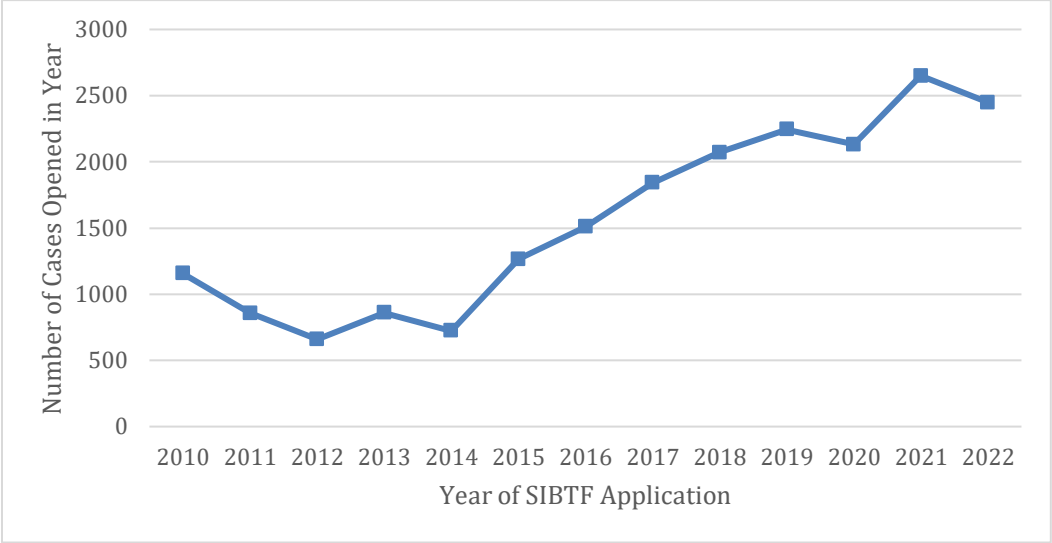
Figure 4.2 shows that several spikes in dismissals of SIBTF cases (in 2010–2012, and 2017–2018) accounted for a large share of SIBTF case dismissals. These spikes in case dismissals reflect efforts by the SIBTF Claims Unit to identify and administratively close cases that had been abandoned. In other years, most case resolutions involved either a lump sum settlement via C&R or an award (F&A) or settlement (Stipulations) involving ongoing benefit payments. Before 2016, the volume of cases resolved with benefits was stable at around 320 cases per year. C&Rs accounted for about three in five cases resolved with benefits. (See Table 4.1 for descriptive statistics on case resolutions by year.)

Around 2016, the volume of cases resolved with benefits began to grow, averaging 460 per year over 2019–2020. Since 2020, however, there has been much more rapid growth in the number of cases resolved with benefits per year, with 752 cases resolved in 2021 and 1,284 cases resolved in 2022. While the number of C&Rs per year has grown during this time, growth in Stipulations and F&As has been far more rapid: Stipulations and F&As reached 51 percent of resolutions with benefits in 2021 and 55 percent in 2022 after averaging just 39 percent of resolutions with benefits between 2010 and 2020.

Although case resolution has accelerated in recent years, growth in SIBTF applications has been faster, leading to a growing backlog of pending cases (Figure 4.3). In 2010, 6,621 cases were pending at the start of the calendar year. The number of pending cases fell to a low of 4,223

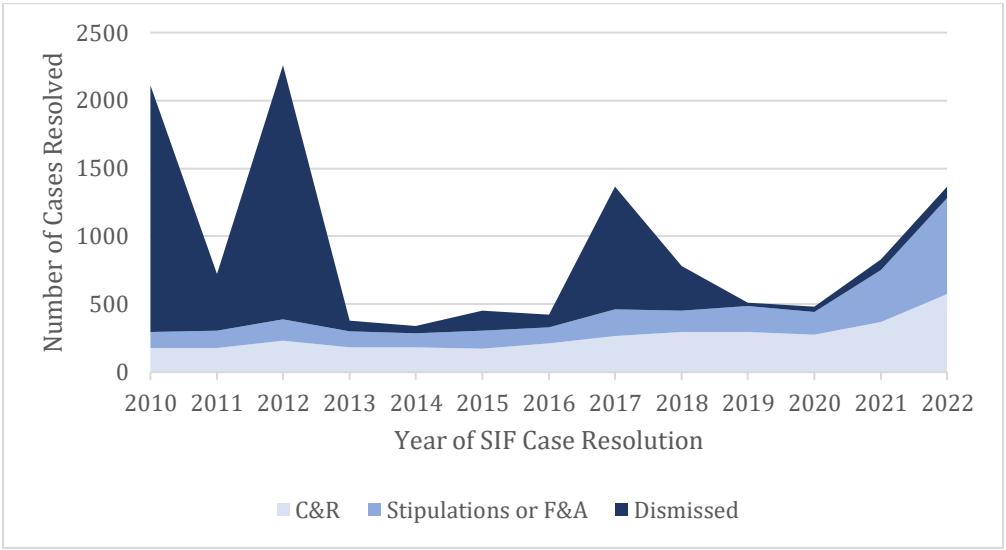
in 2013 but has grown steadily ever since. At the start of 2023, there were nearly 15,073 pending SIBTF cases in the system.

Figure 4.1. Number of SIBTF Applications by Year Filed, 2010–2022



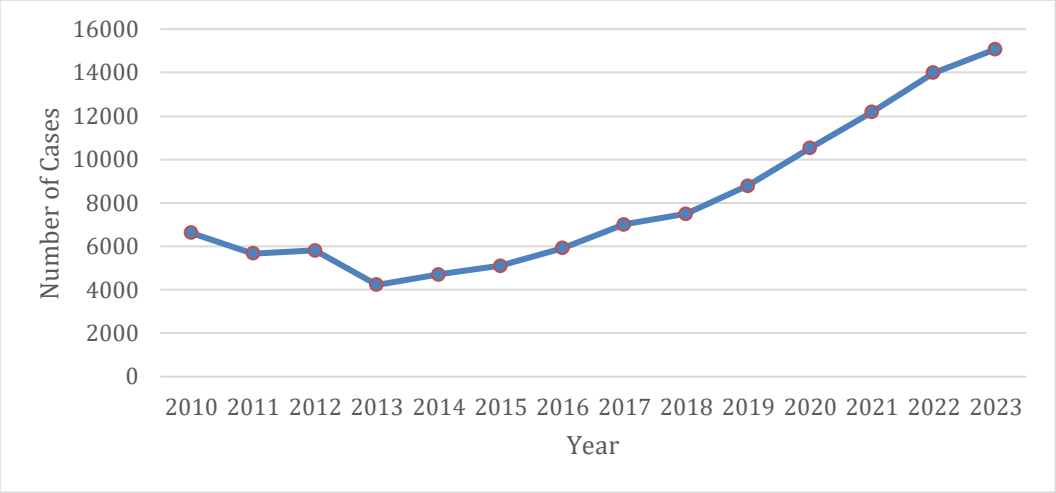
SOURCE: RAND analysis of EAMS data.
NOTE: See Appendix A for details.

Figure 4.2. Number of SIBTF Cases Resolved by Year of Resolution and Manner of Resolution, 2010–2022



SOURCE: RAND analysis of EAMS data.
NOTE: Sixty-seven cases that were closed or dismissed were subsequently reopened or subject to further activity in EAMS. For simplicity, these cases are counted as being dismissed in the year of the initial dismissal. See Appendix A for details.

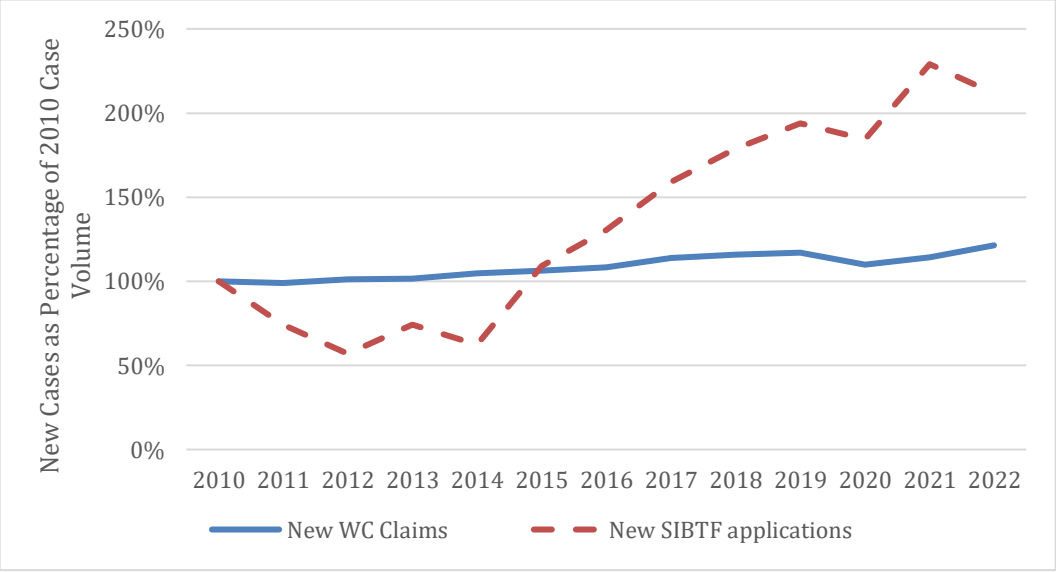
Figure 4.3. Number of SIBTF Cases Pending at Start of Year, 2010–2023



SOURCE: RAND analysis of EAMS data.
NOTE: See Appendix A for details.

To provide a benchmark for growth in application volumes over 2010–2022, we compared the number of SIBTF applications with the number of new workers' compensation claims filed in California in each year. We normalized these volumes by the 2010 values to allow comparison of cumulative growth over time. The results are shown in Figure 4.4.

Figure 4.4. Cumulative Growth of New SIBTF Applications vs. New Workers' Compensation Claims, 2010–2022



SOURCE: DIR, "Workers' Compensation Information System," webpage, October 2023b, table 4.
NOTE: Workers' compensation claim volumes measured as "first reports of injury," as reported by DWC.

Since 2015, growth in SIBTF applications dramatically outpaced growth in the number of workers' compensation claims filed. The number of new workers' compensation claims filed grew by 21 percent between 2010 and 2022, while the number of SIBTF applications filed grew by 112 percent.

Characteristics of SIBTF Applications from 2010 to 2022

Table 4.1 describes characteristics of workers who applied for SIBTF benefits in 2010–2022. On average, workers were aged 50 at the time of the SII and were aged 57 when they applied for SIBTF benefits.

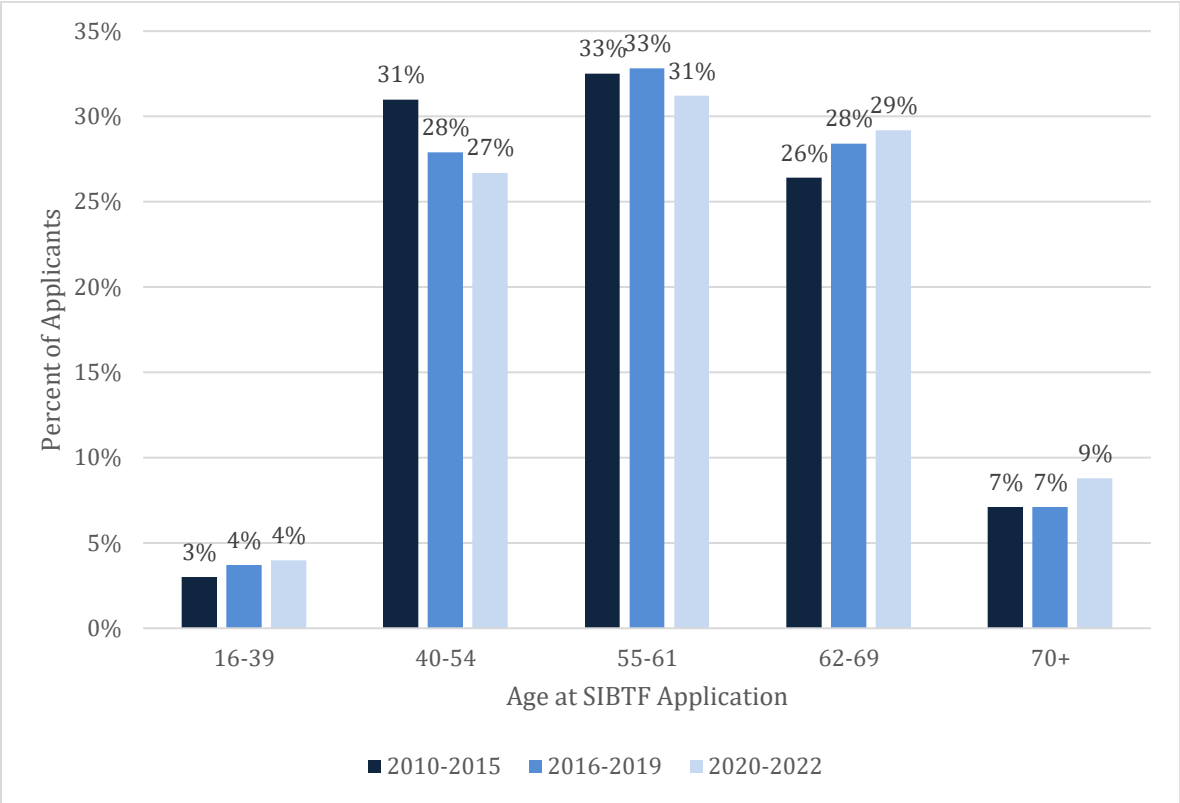
The average age at injury remained stable over time, while the average age at SIBTF application increased slightly, from 57.4 years for 2010–2015 applications to 58.1 years for 2020–2022 applications. Figure 4.5 provides additional detail on the age of SIBTF applicants at the time of application, showing that the increase in the average age reflected modest increases in the proportion of applications filed by older workers: applications filed between ages 62 and 69 increased by 3 percentage points between 2010–2015 and 2020–2022, while applications filed at age 70 or above increased by 2 percentage points between 2010–2015 and 2020–2022.

Table 4.1. Characteristics of SIBTF Applicants and Cases, 2010–2022

Statistic	2009 or Earlier	2010–2015	2016–2019	2020–2022	Total
Mean age at SII	48.1	50.3	51.3	50.3	50.1
Mean age at SIBTF open date	53.6	57.4	57.6	58.1	56.7
Mean year of injury	1996	2005	2011	2013	2007
Mean year of SIBTF application	2002	2013	2018	2021	2014
SII resolved by time of data collection?	24%	93%	92%	82%	73%
SII resolved with C&R?	12%	40%	50%	45%	37%
SII resolved with Stip/F&A?	10%	46%	37%	33%	31%
SIBTF resolved?	91%	52%	31%	15%	46%
SIBTF resolved with C&R?	7%	24%	17%	7%	13%
SIBTF resolved with Stip/F&A?	9%	17%	12%	7%	11%
SIBTF resolved with F&O or Dismissed?	75%	12%	2%	1%	22%
Number of cases	**6,633**	**5,520**	**7,665**	**7,229**	**27,047**

SOURCE: RAND analysis of EAMS data.
NOTE: SII resolution was determined based on court filings recorded in EAMS; SIBTF resolution defined using case status, outcome, and payment data recorded in EAMS; see Appendix A for details. Age at SII date of injury missing in 105 cases. Age at date of SIBTF opening missing in 83 cases. Date of SII missing in 22 cases.

Figure 4.5. Age at SIBTF Application by Application Year



SOURCE: RAND analysis of EAMS data.

Table 4.1 also describes the status of the SII case as of the time of data extraction in 2023. Most SII cases associated with SIBTF applications in 2010–2022 had been resolved by 2023, with over 90 percent of cases resolved in each year from 2010 through 2019. Lower SII resolution rates in recent years are likely to reflect the fact that these SIBTF applications are associated with more recent SII cases. In contrast, the very low (24 percent) SII resolution rate for cases filed in 2009 and earlier years seems likely to reflect limitations in the EAMS data: the average SII year of injury for SIBTF cases filed in 2009 and earlier was 1996, implying that most of these SII cases likely occurred before EAMS launched in 2008 and may therefore be more likely not to have complete records of all court filings and adjudication outcome in EAMS.

Across all years, SII cases are more likely to resolve with a C&R than with Stipulations or F&A. C&Rs offer the parties a way to resolve a case without reaching agreement or fully adjudicating key issues that are in dispute, including the worker's PD rating. The prevalence of C&Rs in the workers' compensation system means that not only is an exact PD rating for the SII typically unavailable at the time the SIBTF application is filed, a rating for the SII may never be definitively established outside the SIBTF adjudication process in the majority of SIBTF cases.

Occupations of SIBTF Applicants

Table 4.2 describes the occupations reported by SIBTF applicants, as reported in SIBTF case documents or in EAMS data. The table reports the frequency of major occupation groups, as defined in the 2018 Standard Occupational Classification (SOC) system. We used an algorithm developed by the National Institute for Occupational Safety and Health (NIOSH), the NIOSH Industry and Occupation Computerized Coding System (NIOCCS), to classify free-text entries for occupations into SOC codes. This process is described in Appendix A; similarly structured tables reporting more detailed occupations are presented in Appendix C.

Table 4.2. Occupations of SIBTF Applicants

Major Occupational Group	Number of Applicants	Proportion of Applicants
Transportation and Material Moving Occupations	9,293	34%
Protective Service Occupations	1,872	7%
Office and Administrative Support Occupations	1,273	5%
Building and Grounds Cleaning and Maintenance Occupations	806	3%
Production Occupations	740	3%
Food Preparation and Serving Related Occupations	686	3%
Management Occupations	666	2%
Installation, Maintenance, and Repair Occupations	640	2%
Healthcare Practitioners and Technical Occupations	621	2%
Arts, Design, Entertainment, Sports, and Media Occupations	609	2%
Other Occupations	3,209	12%
Occupation Not Reported	5,671	21%
Insufficient Information for Coding	962	4%
Total	**27,048**	**100%**

SOURCE: RAND analysis of SIBTF case documents and EAMS data.
NOTE: Occupation descriptions for cases in sample were taken from SIBTF Application or other documents when available. Occupation codes assigned using the NIOSH Industry and Occupation Computerized Coding System (NIOCCS). Occupation assigned to highest-probability match. "Occupation Not Reported" = no occupation information available in SIBTF Case documents or EAMS, or occupation is listed as "NA." "Insufficient Information for Coding" = occupation reported, but highest-probability match from NIOCCS is "Insufficient Information." See Appendix A for details.

About one in three SIBTF applicants was employed in Transportation and Material Moving occupations, a category that includes laborers, material movers, and truck drivers, among other occupations. We caution that these estimates likely overstate how many workers truly worked in one of these occupations because the description "Laborer" is often entered as a catch-all term when applicants' attorneys or others lack more accurate information about an injured worker's job description. Protective Service occupations (which include law enforcement officers and firefighters) accounted for 7 percent of SIBTF applicants (about 1 in 14), and Office

Administrative Support Occupations (which include customer service representatives, office clerks, and administrative assistants) accounted for 5 percent (about 1 in 20) SIBTF applicants.

In Table C.9, we report on detailed occupations (the most detailed level of occupation coding available) reported by SIBTF applicants. After the 29 percent of workers classified as "Laborer" (which is likely to overestimate the proportion of workers who could accurately be described as laborers), 21 percent with no occupation information recorded, and 4 percent that could not be assigned to an occupation code, the next four most common occupations are Heavy and Tractor-Trailer Truck Drivers (2.9 percent of SIBTF applicants), Police and Sheriff's Patrol Officers (2.5 percent of SIBTF applicants), Athletes and Sports Competitors (2 percent of SIBTF applicants), and Firefighters (2 percent of SIBTF applicants).

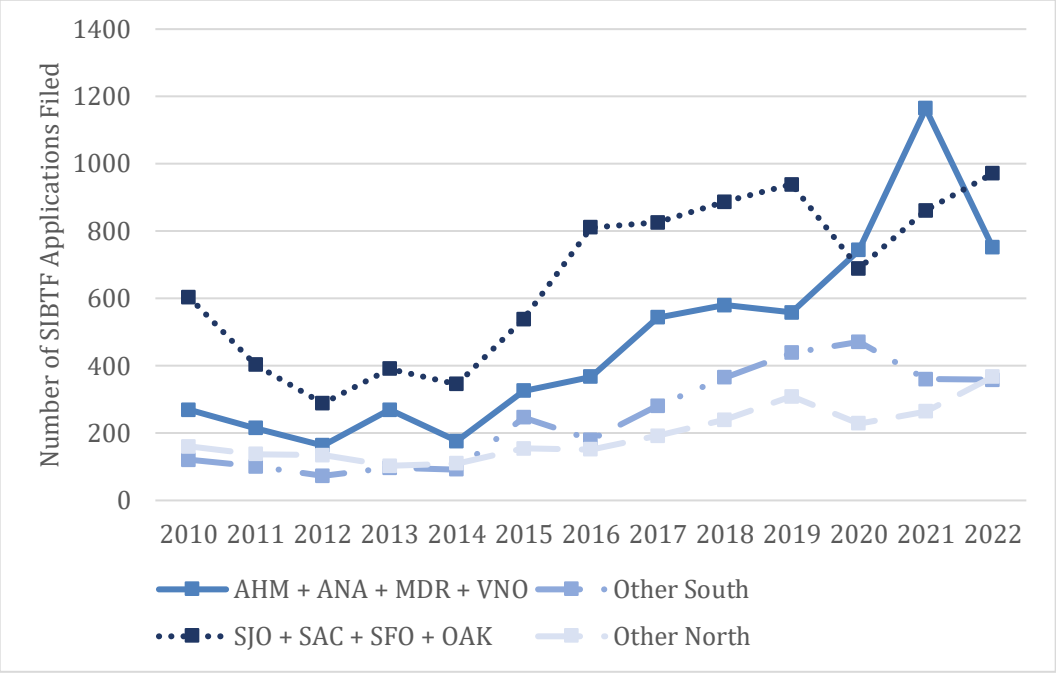
DWC District Offices with SIBTF Applicants

We used EAMS data on the DWC office where the SII case was heard as a rough measure of how SIBTF applications were distributed throughout the state. SIBTF application volumes by year and DWC office for selected offices with large volumes of SIBTF cases are presented in Figure 4.6; case volumes by office for all 24 DWC offices are reported in Table C.2. The discussion below draws on this table as well.

San Jose accounted for 1 in 5 cases filed between 2010 and 2015, and 47 percent of all SIBTF applications in these years were filed in either Sacramento or one of three offices in the Bay Area (San Jose, Oakland, or San Francisco). The other eight offices outside Southern California (defined to encompass the 12 offices in Santa Barbara or points south) accounted for 14 percent of applications.

As the total volume of SIBTF applications grew, however, SIBTF application volumes increased in Southern California offices, especially Van Nuys, Anaheim, Marina del Rey, and Santa Ana. These four offices, which had accounted for 26 percent of SIBTF applications in 2010–2015, had increasing application volumes and came to account for 37 percent of SIBTF applications in 2020–2022. Sacramento and the three large Bay Area offices, meanwhile, accounted for only 35 percent of all SIBTF applications between 2020 and 2022. As Figure 4.6 illustrates, the declining share of applications in these offices happened in spite of continued growth in application volumes and reflected faster growth in Southern California rather than any decline in applications in Northern California. Applications volumes also grew in other parts of the state, but the eight large metropolitan offices (including Sacramento) highlighted in Figure 4.6 drove most of the growth.

Figure 4.6. Trends in SIBTF Applications Filed at Selected DWC Offices



SOURCE: RAND analysis of EAMS data.
NOTE: AHM = Anaheim, ANA = Santa Ana, MDR = Marina del Rey, VNO = Van Nuys, SJO = San Jose, SAC = Sacramento, SFO = San Francisco, OAK = Oakland, "Other South" = 8 offices not named above located in Santa Barbara or further south, "Other North" = 8 offices not named above located in San Luis Obispo or further north.

Case Outcomes and Processing Times

We used EAMS data to examine the typical durations between the SII date of injury, the SIBTF application date, and the resolution of the SIBTF case. Descriptive statistics for these durations (in months) are presented in Table 4.3. To provide insight into the duration of SIBTF claim processing time, the sample used in the table is limited to cases that were filed in or after the month of SII resolution, so that SIBTF case adjudication could begin immediately. Statistics on the share of cases filed while the SII was still pending are discussed below.

Table 4.3. Duration Between Date of Injury, SII Resolution, SIBTF Application, and SIBTF Resolution (in months)

Outcome	Mean	Minimum	25th Percentile	Median	75th Percentile	Maximum
Duration from SII date of injury to SIBTF open date	82	0	41	62	100	762
Duration from SII resolution date to SIBTF open date	20	0	3	9	23	190
Duration from SIBTF open date to SIBTF resolution date	65	0	17	49	103	357

SOURCE: RAND analysis of EAMS data.
NOTE: *N* = 21,166 for duration from date of injury to SIBTF open date; *N* = 13,834 for duration from SII resolution date to SIBTF application date; and *N* = 9,481 for duration from SIBTF open date to SIBTF resolution date. Sample restricted to cases with SIBTF application filed after SII resolution date, resulting in exclusion of 5,859 cases for duration from date of injury to SIBTF open date; 5,869 cases for duration from SIBTF open date to SIBTF resolution date; and 2,885 cases for duration from SIBTF open date to SIBTF resolution date. Two cases with recorded date of injury after SIBTF open date were recoded to zero.

For cases in our study population that were filed after the SII resolved, the average duration between the SII injury date and the SIBTF application date was 6 years and 10 months (82 months). Although some cases with a very long time between SII date of injury and SIBTF application are included in this average, the median duration of 5 years, 2 months (62 months) between SII injury date and SIBTF application indicates that the typical SIBTF case was filed just over five years after the SII injury date. One in four SIBTF cases was filed at least 8 years and 4 months (100 months) after the SII injury date.

In the California workers' compensation system, the SII injury date may precede the filing of the workers' compensation claim by months or, in cases involving occupational diseases or other health conditions with a long period between exposure and the onset of symptoms, years. In these cases, the fact that a long time has elapsed between the date of injury and the SIBTF application may reflect the relatively permissive claim-filing timelines and slow adjudication processes in the workers' compensation system as a whole, rather than anything specific to the SIBTF process.

We also compared the date of SIBTF application with the date of SII resolution. This analysis, which is presented in Table 4.4, is limited to cases for which the SII was resolved by a court filing reported in EAMS, since this is how we observe the date when the SII was resolved.

On average, SIBTF applications on cases filed after the SII was resolved were filed 1 year and 8 months (20 months) after the SII was resolved. In 30 percent of cases where the SII was resolved, however, the SIBTF application was filed before the SII was resolved (Table 4.4).[36] (As discussed in Chapter 1, SIBTF applications can be filed before the SII is resolved, even

[36] We also calculated the statistics reported in Table 4.3 for a sample including the 30 percent of cases filed before the SII was resolved. Other than mechanical differences in the duration between SII resolution date and SIBTF application date from the addition of cases with negative values for this duration, the durations between the date of injury, the SIBTF application date, and the time between SIBTF application date and SIBTF resolution were not meaningfully different from those reported in Table 4.3.

though adjudication of the SIBTF case does not begin until the SII is resolved.) However, Table 4.4 also shows that SIBTF cases filed in recent years are less likely to be filed before the SII is resolved: the proportion of cases filed before SII resolution declined from 43 percent for cases filed in 2010–2015 to 13 percent for cases filed in 2020–2022.

Table 4.3 also reports descriptive statistics on the time to resolution for SIBTF cases that were resolved as of the time of data collection. Statistics on the time to resolution for the SIBTF case need to be interpreted with caution, since cases that remained unresolved are not included in this analysis. That said, the figures in Table 4.3 suggest that many SIBTF cases remain unresolved for years after the SIBTF application: the mean duration from SIBTF application to resolution was 5 years and 5 months (65 months), while the median duration was 4 years and 1 month (49 months). One in four SIBTF cases that was resolved by the time of data collection had been pending for over eight years (the 75th percentile was 103 months) before resolution.

Table 4.4. Proportion of SIBTF Applications Filed Before SII Resolution

SIBTF Application Year	Proportion
2009 or earlier	84%
2010–2015	43%
2016–2019	22%
2020–2022	13%
All years	30%

SOURCE: RAND analysis of EAMS data.

Receipt of Credits

Table 4.5 describes the proportion of cases with credits from different sources noted. The SIBTF is entitled to credit for the amount of any other compensation, from any source, received by the applicant on account of the PPDs.[37] Credits are likely to be reported accurately only in cases resolved by Stipulations or F&A, since the exact calculations underlying a C&R need not be documented in order for the C&R to be accepted by the parties. Table 4.5, therefore, shows the proportion of cases with credits only among cases resolved by Stipulations or F&A.

Overall, the SIBTF's liability was reduced by a credit from one or more sources of other disability compensation in 78 percent of cases resolved by Stipulations or F&A. By far the most commonly documented source of credits was a prior industrial award—that is, a workers' compensation case prior to the SII. Credit for a prior industrial award was mentioned in the available documents for 71 percent of cases resolved by Stipulations or F&A. The next-most common source of credits was SSDI, which was mentioned in 38 percent of cases resolved by

[37] As noted above, Veterans Affairs disability benefits are not counted as credits against SIBTF.

Stipulations or F&A. A disability pension was mentioned in 15 percent of cases resolved by Stipulations or F&A, while credits from other sources (long-term disability insurance or motor vehicle accidents or other personal injury compensation) were each mentioned in under 10 percent of cases. We also recorded whether case documents indicated that workers were receiving retirement benefits (either from Social Security or another retirement plan). These sources of income were mentioned very infrequently, however, likely because they do not give rise to credits and are not directly relevant for calculating payments owed by the SIBTF.

Table 4.5. Proportion of Cases Resolved by Stipulations or F&A with Credits Against SIBTF Benefits Reported, by Year of Case Resolution

	Year of Case Resolution 2010–2015 (*N* = 58)	Year of Case Resolution 2016–2019 (*N* = 46)	Year of Case Resolution 2020–2022 (*N* = 166)	Year of Case Resolution Total (*N* = 270)
At least 1 credit source reported?	60%	80%	87%	78%
Prior industrial award?	55%	73%	80%	71%
SSDI?	28%	48%	40%	38%
Disability pension?	21%	12%	13%	15%
Motor vehicle accident or other tort?	0%	8%	11%	7%
Retirement pension?	10%	0%	6%	6%
Long-term disability?	2%	0%	6%	3%
Social Security Retirement?	2%	2%	1%	1%

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Sample in table contains cases resolved by Stipulations or F&A that had a dollar value for credits reported. *N* = unweighted sample size.

Table 4.6 also reports the average value of credits recorded on cases resolved by Stipulations or F&A. The median credit amount was lower (around $26,000), while a smaller minority of cases had higher credit amounts factored into their SIBTF benefits: one in four cases had $45,000 or more in credits, while the maximum observed credit was $312,000.

Table 4.6. Value of Credits Against SIBTF Benefits Reported for Cases Resolved by Stipulations or F&A, by Year of Case Resolution

Value of Credits	2010–2015	2016–2019	2020–2022	Total
Mean	$29,101	$39,478	$36,469	$36,019
25th percentile	$14,000	$13,681	$10,000	$12,895
Median	$27,565	$25,595	$26,299	$25,595
75th percentile	$38,318	$49,719	$46,451	$44,625
Maximum	$85,761	$311,544	$285,088	$311,544
N	121	202	187	510

SOURCE: RAND analysis of EAMS data.
NOTE: Sample in table contains cases resolved by Stipulations or F&A that had a dollar value for credits reported. *N* = unweighted sample size.

Disability Ratings and Types of Disabilities Alleged on SIBTF Applications

The data collected for this study contain information about the PD ratings and types of impairments alleged by applicants for both the SII and the PPD; cases that resulted in benefits through Stipulations or F&A also have information about the PD ratings that were used to determine the benefits. This information offers a way to characterize the nature and severity of impairments among SIBTF applicants.

Table 4.7 describes the average PD rating on the SII among SIBTF applicants. The table describes PD ratings for the SII, grouped by the year of the SIBTF application. On average, SIBTF applicants in our study population alleged a PD rating of 52 percent on the SII. The average alleged SII rating is nearly identical (53 percent) when we exclude cases where the SII was resolved by a C&R (which means that the PD rating on the SII may not have been agreed to by the parties or adjudicated by a WCJ). Table 4.7 also shows a downward trend in the rating on the SII between 2010–2016 applications and those filed in later years.[38]

[38] Differences between the 2010–2015 average and those for both 2016–2019 and 2020–2022 are statistically significant at the 5-percent level, both for all SIBTF cases and for those excluding cases where the SII was settled by C&R. Significance was assessed using a two-sided t-test corrected for heteroskedasticity.

Table 4.7. Alleged Permanent Disability Ratings on SII (as alleged on SIBTF application) by Year of SIBTF Application

SII Case Outcome	All SIBTF Cases (*N* = 431)	SIBTF Cases Excluding Those Where SII Was Resolved by C&R (*N* = 215)
Year of SIBTF application		
2009 or earlier	54	49
2010–2015	61	66
2016–2019	50	47
2020–2022	48	53
Total	**52**	**53**

SOURCE: RAND analysis of SIBTF case documents.
NOTE: *N* = unweighted sample size. Estimates based on sample of cases with an SII rating reported on the application.

Although system-wide data on PD ratings are limited, it is clear that PD ratings for SIBTF cases were higher than was typical in the California workers' compensation system at the time—as we would expect to see in a program targeting workers with high degrees of work disability. For example, RAND researchers analyzing data on ratings performed by the state Disability Evaluation Unit (DEU) between 2005 and 2012, reported that the average final PD rating was 20 percent, and that 75 percent of ratings were below 26 percent.[39]

Table 4.8 examines PD ratings for SIBTF resolutions with benefits that resolved between 2010 and 2022. Both the SII rating and the combined (SII + PPD) rating are shown in the table. Most SIBTF C&R cases had limited information available about the final PD rating (since cases can be resolved by a C&R when the parties do not agree about the rating and other facts of the case), so the table is limited to SIBTF cases that resolved by Stipulations or F&A.

[39] Michael Dworsky, Seth A. Seabury, Frank W. Neuhauser, Ujwal Kharel, and Roald Euller, *Benefits and Earnings Losses for Permanently Disabled Workers in California: Trends Through the Great Recession and Effects of Recent Reforms*, RAND Corporation, RR-1299-CHSWC, 2016.

Table 4.8. Final Permanent Disability Ratings in SIBTF Cases Resolved by Stipulations or F&A, by Year of Resolution

Rating for: Year of SIBTF Resolution	SII Rating	Combined (SII + PPD) Rating	Proportion with Combined Rating >= 100%
2010–2019	56	93	61%
2020–2022	60	98	82%
Total (2010–2022)	**58**	**95**	**72%**

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on a sample of 220 cases resolved by Stipulations or F&A with data available on the SII and combined rating used to determine benefits.

The average SII rating that was determined to apply at the time of the SIBTF resolution was 58 percent. The combined rating, which reflects the total extent of disability caused by both the PPD and the SII, is what ultimately determines a worker's eligibility for an award from the SIBTF and, for those who receive benefits by Stipulations or F&A, the type and amount of SIBTF benefits paid. Combined ratings are high for workers with SIBTF benefits, since the combined rating must be at least 70 percent for the worker to qualify for SIBTF benefits.

Table 4.8 reports that the average combined rating for SIBTF cases that resolved by Stipulations or F&A between 2010 and 2022 was 95 percent, and a majority (72 percent) of these cases had a rating of 100 percent or higher, providing the worker with PTD benefits.

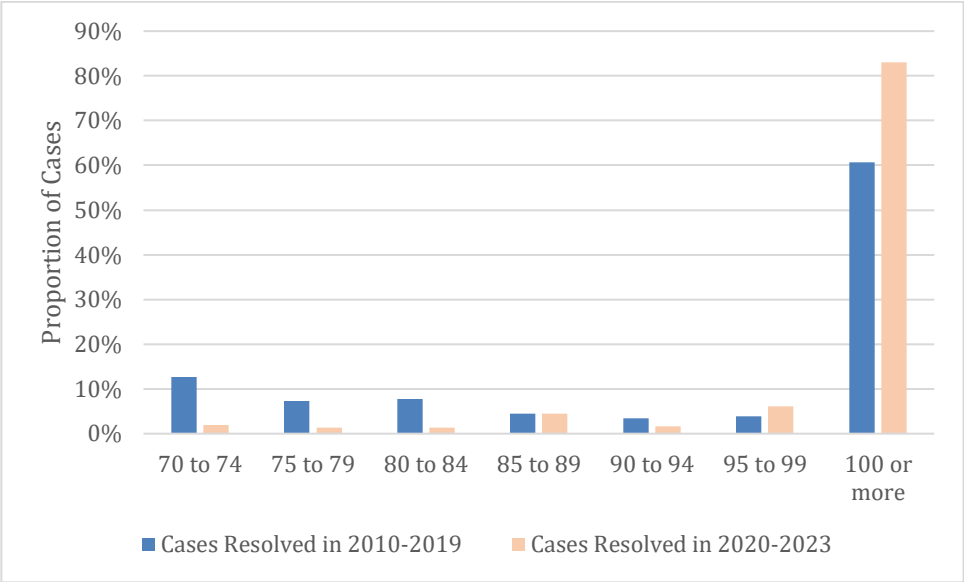
Moreover, Table 4.8 shows that the proportion of cases with ratings of 100 percent increased sharply since 2020, from 61 percent of cases resolved in 2017–2019 to 82 percent of cases resolved in 2020–2022. As a result of this increase in the share of cases with 100-percent ratings, the average combined rating on cases that resolved by Stipulations or F&A increased by 5 percentage points, from 93 percent for cases resolved in 2017–2019 to 98 percent for cases resolved in 2020–2022.[40] The average SII rating on cases that resolved by Stipulations or F&A also increased (from 56 percent in 2010–2019 to 60 percent in 2020–2022).

Figure 4.7 depicts the trend in total combined disability ratings graphically, showing the full distribution of combined ratings for cases resolved between 2010 and 2019 compared with the distribution of combined ratings for cases resolved between 2020 and 2023. The share of cases with combined ratings of 100 percent or more increased from 61 percent in 2010–2019 to 83 percent in 2020–2023.[41]

[40] The increase in the share of cases resolved by Stipulations or F&A that received 100-percent ratings was statistically significant ($p < 0.01$ using a Chi-squared test), as was the increase in the average combined rating ($p < 0.01$). The increase in the SII rating was not statistically significant ($p = 0.14$).

[41] Figure 4.7 includes 26 cases that were excluded from Table 4.8 because a rating for the SII was not reported in the case-resolving document, resulting in slightly different estimates of the proportion of Stipulations and F&A cases with a 100 percent rating.

Figure 4.7. Distribution of Combined Disability Ratings by Case Resolution Year



SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 246 cases resolved through Stipulations or F&A with a combined rating reported.

Health Conditions Involved in the Subsequent Industrial Injury and the Pre-Existing Disability

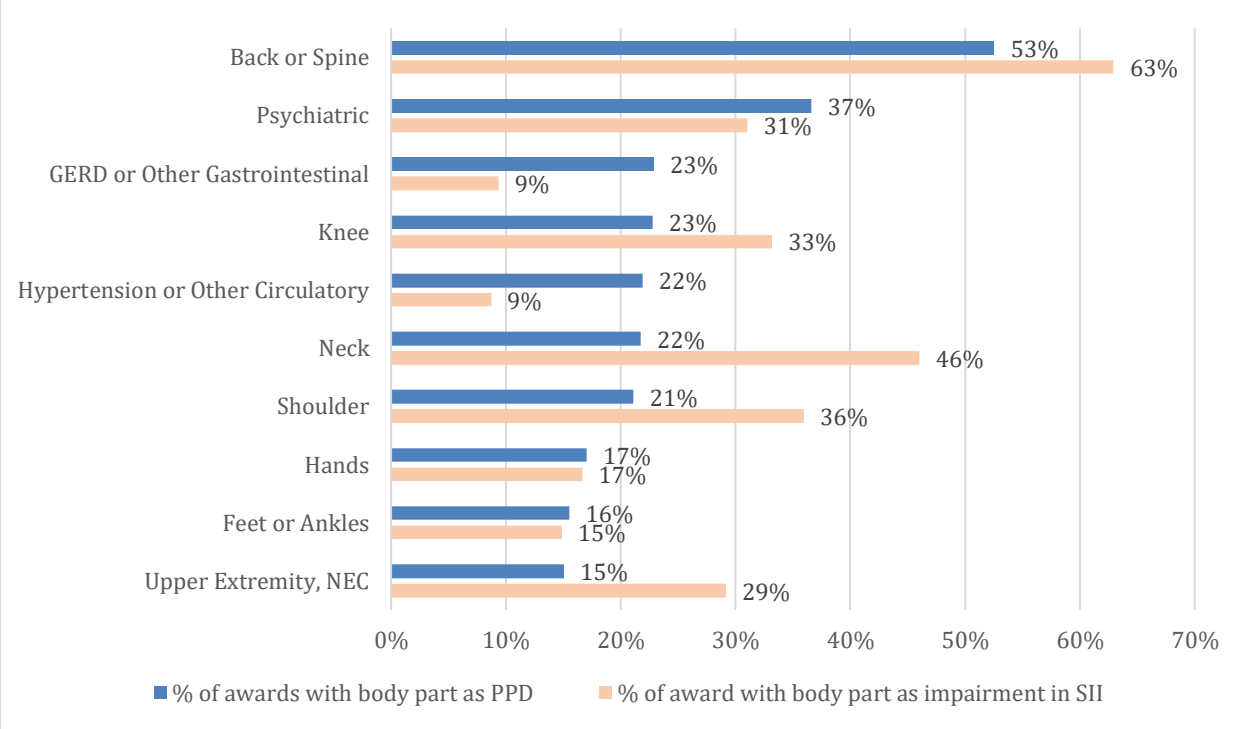
To learn more about the types of impairments and health conditions that are involved in SIBTF cases, we analyzed descriptions of the impairments from the SII and the impairments or health conditions from the PPD that were collected from SIBTF case resolution documents. We processed these free-text descriptions to determine, for each case with SIBTF benefits, whether an impairment or health condition forming the basis for benefits was part of the SII, the PPD, or both. Results discussed in this section focus solely on cases resolved by Stipulations or F&A, since cases resolved with a C&R typically lacked detail on the exact conditions that formed the basis for the settlement.

Figure 4.8 lists the ten impairments or health conditions most frequently identified as PPDs in case documents as the basis for benefits by Stipulations or F&A and shows how often these cases appeared as a PPD or as part of the SII. Many of the most common PPDs are conditions that are also common in the workers' compensation system. Back and spine impairments, which were the most frequently identified condition as both a PPD and an SII, appeared as a PPD in 53 percent of cases with SIBTF benefits and as an SII impairment in 63 percent of cases with SIBTF benefits. The second-most frequently identified conditions were psychiatric impairments, which appeared as a PPD in 37 percent of cases with SIBTF benefits and as an SII impairment in 31 percent of cases with SIBTF benefits. Impairments of the knee, neck, shoulder, hands, feet or

ankles, and upper extremities (specified without further detail) were also among the ten most common PPDs. All these impairment types appeared on a similar or higher share of SIIs.

However, Figure 4.8 also shows that two widespread chronic conditions that rarely appear as SIIs were very common among PPDs. GERD was the third-most common PPD, appearing on 23 percent of SIBTF cases with benefits; hypertension or other circulatory diseases were the fifth-most common PPD, appearing on 22 percent of SIBTF cases with benefits. While these conditions also appear in the regular workers' compensation system, they were more than twice as common as a PPD than they were as an SII.

Figure 4.8. Most Common PPDs Cited as Basis for SIBTF Benefits



SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 174 cases with at least one PPD and one SII identified in a Stipulations or F&A case-resolving document. Figure shows proportion of cases resolved by Stipulations or F&A in which a specific condition is cited as the basis for the benefits. "GERD" = Gastroesophageal Reflux Disease. "NEC" = Not Elsewhere Classified. PPD = pre-existing Permanent Partial Disability. SII = Subsequent Industrial Injury. Additional details on condition definitions available in Appendixes A and C.

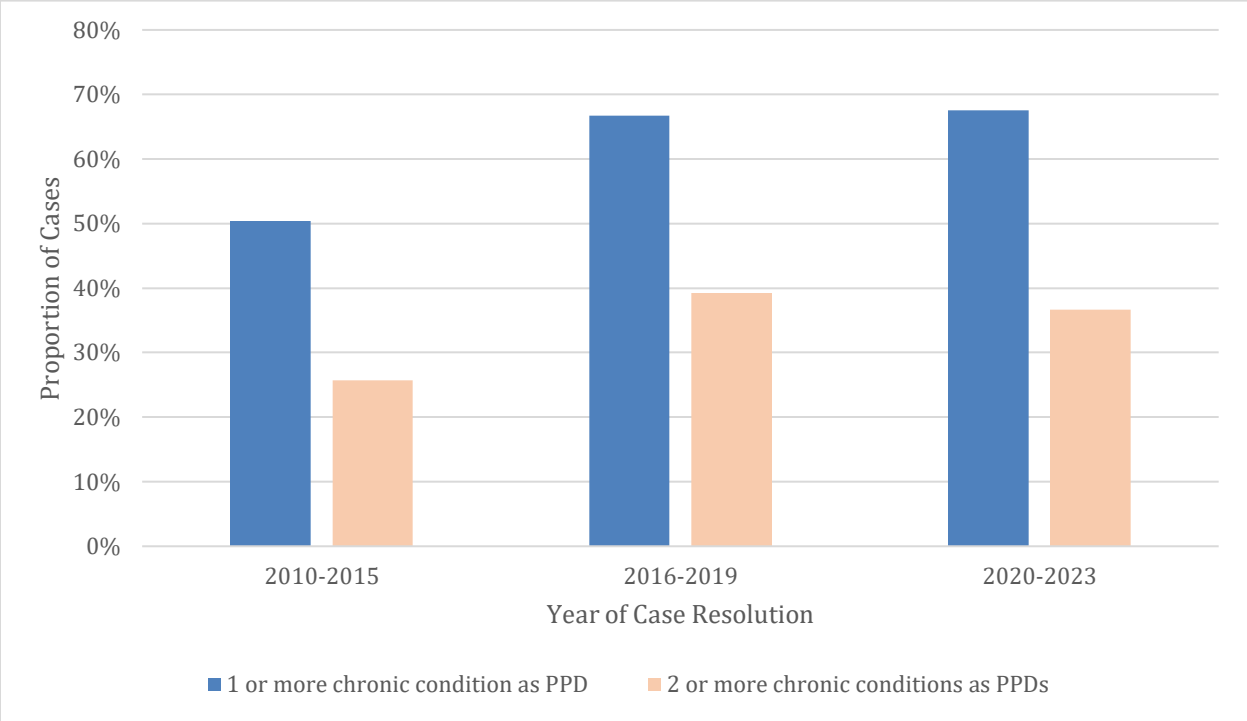
Beyond GERD and hypertension, we found that PPDs that formed the basis for SIBTF resolutions with benefits frequently included a number of chronic conditions that are rarely seen in the regular workers' compensation system: other examples include diabetes, arthritis, headaches, and obesity. With input from DIR, we defined a set of these chronic conditions and estimated how often an SIBTF resolution with benefits was based on one or more of these

chronic conditions as a PPD. We also examined how the proportion of SIBTF resolutions with benefits involving these PPDs has changed over time.

Figure 4.9 shows that the proportion of SIBTF case resolutions with benefits based on one or more chronic conditions has grown rapidly since 2010, rising from 29 percent of cases resolved in 2010–2015 to 55 percent of cases resolved in 2020–2022. These increases in the proportion of SIBTF benefits based on chronic conditions occurred at the same time as increases in the number of conditions alleged as PPDs on SIBTF applications: the average number of distinct conditions alleged as PPDs increased from 2.7 per case among SIBTF applications filed in 2010–2015 to 4.2 per case among SIBTF applications filed in 2016–2019 (consult Table C.6 for further details). These conditions remained relatively rare among SIIs throughout the study period.

An important point shown by Figure 4.9 is that most of the increase in SIBTF benefits based on chronic conditions as the PPD predates the 2020 *Todd* decision. We also estimated that these conditions were much less common as impairments on the SII. While 63 percent of cases resolved between 2010 and 2022 had one or more chronic conditions as a PPD, only 37 percent of these cases had one or more chronic conditions as an impairment on the SII.

Figure 4.9. Proportion of SIBTF Cases Resolved with Benefits Based on One or More Chronic Conditions, by Year of Case Resolution



SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 174 cases with at least one PPD and one SII identified in a Stipulations or F&A case-resolving document. Figure shows proportion of cases resolved with Stipulations or F&A in which one or more chronic conditions specified by DIR was cited as the basis for the resolution. Chronic conditions included are GERD or other gastrointestinal conditions, circulatory conditions, hypertension, hearing loss, sleep disorders, vision problems or eye conditions, diabetes, headache, arthritis or non-specific orthopedic conditions, sexual dysfunction, and obesity or weight gain. Additional details on condition definitions available in Appendixes A and C.

Readers interested in further details of the conditions identified as SII and PPD impairments should consult Table C.3, which lists the three most common verbatim descriptions of health conditions that we assigned to each of the categories we analyzed. Tables comparing the frequency of all SII and PPD conditions cited as the basis for SIBTF benefits are also presented as Table C.4. Table C.5 shows the frequency of conditions alleged as PPDs on the SIBTF application (rather than limiting attention to those PPDs cited as the basis for benefits granted). Patterns were not meaningfully different between applications and benefits granted.

Medical-Legal and Vocational Rehabilitation Reports in the SIBTF

Overall, 27 percent of SIBTF cases received one or more medical-legal reports specifically for the SIBTF case. VR reports were much less common, received in only 1 percent of SIBTF cases. Table 4.9 shows, however, that the frequency of both medical-legal and VR reports on SIBTF cases has changed over time. The proportion of cases with one or more medical-legal reports has grown substantially, from 23 percent for cases opened between 2010 and 2015 to 46

percent for cases opened between 2016 and 2019. VR reports are used much less frequently, and the proportion of cases with one or more VR reports fell between 2010–2015 and 2016–2019 cases. The average number of reports per case when new medical-legal reports are filed remained fairly stable over time, averaging 3.7 per case for cases opened between 2010 and 2015 and 3.4 for cases filed between 2016 and 2019. To some extent, the lower proportion of cases with reports on SIBTF cases filed after 2019 is likely to reflect the fact that these cases have been pending for very little time relative to the time it typically takes to resolve an SIBTF case, so more medical-legal and VR reports are likely to be completed on these cases as they move toward resolution.[42] In other words, we do not interpret Table 4.9 as evidence that receipt of medical-legal and VR reports has fallen on cases filed since 2020, since we are unable to observe longer-run outcomes for these more recent cases.

Table 4.9. Frequency of Medical-Legal and Vocational Rehabilitation Reports Billed to SIBTF

Year of Case Filing	Proportion of Cases with Med-Legal Reports	Med-Legal Reports per Case Among Those with 1+ Report	Proportion of Cases with VR Reports	VR Reports per Case Among Those with 1+ Report
2009 or earlier	3.2%	2.6	0.3%	1.3
2010–2015	22.6%	3.7	3.1%	1.3
2016–2019	46.1%	3.8	1.9%	1.1
2020–2022	31.7%	3.4	0.3%	1.0
Total	**26.9%**	**3.6**	**1.3%**	**1.2**

SOURCE: RAND analysis of SIBTF Claims Unit transaction data.
NOTE: Number of medical-legal and VR reports measured as number of unique payments to vendors for medical-legal and VR reports. See Appendix A for further details.

SIBTF Claims Unit Staffing and OD Legal Appearances

A question raised by the growing volume of SIBTF cases is how the demands of administering and defending SIBTF claims have affected DIR's workload and budget. Data needed to quantify the cost to DIR of the SIBTF program were not available, but DIR was able to provide data on two measures of the SIBTF's personnel requirements over time: the number of claims examiners employed in the SIBTF Claims Unit, and the number of appearances before WCALJs made by the OD Legal attorneys to defend SIBTF claims.

We obtained staffing data from DIR reflecting the number of claims examiners employed by the SIBTF Claims Unit from 2006 through 2023 (see Table 4.10). Claims examiners (WCCs and supervising WCCs) process, evaluate, and administer SIBTF claims.

[42] These patterns are similar if we estimate the statistics in this table on a sample of cases that have been resolved. However, cases that resolve quickly may be less complex, and so the challenges in comparing the number of reports on cases of different maturities are not addressed by using this alternative sample.

In each year between 2010 and 2020, there were eight examiners and first-line supervisors of examiners working in the SIBTF Claims Unit. During this time, the number of new cases filed per year doubled (from 1,004 on average between 2010 and 2015 to 2,052 per year on average between 2016 and 2019), and the number of pending cases at year's end increased by 42 percent (from 5,435 on average between 2010 and 2015 to 7,761 on average between 2016 and 2019).

In 2020, a budget change proposal was authorized to allow the hiring of additional claims examiners. By the end of the study period (2022), the SIBTF Claims Unit employed 21 claims examiners; hiring has continued into 2023, and there were 24 claims examiners in the SIBTF Claims Unit at the end of 2023. As we showed above in Figure 4.1, the number of new applications continued to grow during this period, averaging 2,410 per year between 2020 and 2022: at the end of 2022, the backlog of pending cases stood at 13,991.

Table 4.10. Number of SIBTF Claims Examiners Employed by DIR, FY 2010–2023

Fiscal Year	Number of Examiners and First-Line Supervisors Employed in SIBTF Claims Unit
2010	8
2011	8
2012	8
2013	8
2014	8
2015	8
2016	8
2017	8
2018	8
2019	8
2020	8
2021	18
2022	21
2023	24

SOURCE: DIR.

DIR also provided us with data on the number of OD Legal court appearances on SIBTF cases by fiscal year for FY 2013–2023. The number of appearances per year grew from an average of 1,274 per year over FY 2013–2016 to 2,242 per year over FY 2017–2019, and then to 3,949 per year over FY 2020–2022. The number of appearances in FY 2023 (which includes the last 6 months of 2022) was 6,128 (Table 4.11).

Table 4.11. WCALJ Appearances by OD Legal Attorneys in SIBTF Cases, FY 2013–2023

Fiscal Year	North	South	Total
2013	831	363	1,194
2014	675	823	1,498
2015	774	448	1,222
2016	722	459	1,181
2017	1,074	880	1,954
2018	1,175	1,227	2,402
2019	1,150	1,219	2,369
2020	1,519	964	2,483
2021	1,945	1,973	3,918
2022	2,483	2,962	5,445
2023	2,946	3,182	6,128
Total	**15,294**	**14,500**	**29,794**

SOURCE: DIR.

Discussion

This chapter paints a picture of the workers filing applications to the SIBTF and patterns of claims over time. Applicants tend to be older than the typical worker with a workers' compensation claim and have more severe injuries as measured by ratings—due largely to the eligibility parameters of SIBTF requiring a combined rating of 70 percent or higher. Over 40 percent of SIBTF applicants come from three main occupations: transportation, protective services, and administrative support. Applicants report numerous and diverse injuries on their applications. While reported injuries on the SII claim are common to reported injuries in most workers' compensation claims (comprised mainly of specific injuries to back, neck, and extremities), workers are also reporting many PPDs which are less commonly reported in industrial cases, including many common chronic diseases, sexual dysfunction, and sleep disorders.

The chapter also provides an overall picture of trends in the SIBTF system between 2010 and 2022. While case volumes were relatively low and characteristics stable over the first half of this period, there has been a significant upward trend in the volume of applications after 2015, and characteristics have been changing during this time. Between 2010 and 2014, approximately 20 percent of cases were filed in in San Jose, but application volume has grown in other parts of the state since then. By 2022, applications were distributed more evenly between Southern and Northern California, although a small number of offices in the Bay Area and the greater Los Angeles region continued to account for 70 percent of SIBTF applications.

Case resolution patterns have changed as well, with a stark increase in the share of cases that are resolved via Stipulations or F&A relative to C&R, and a significant increase in the share of

cases resolved with ratings of 100 percent, leading to a lifetime PTD benefit payment. There also has been a decline in the probability that a case is dismissed. These changes in case resolution patterns are most apparent in the years following the *Todd* decision in 2020.

While the number of resolutions has increased recently in keeping with the trend of growing caseload, the application volume has increased more rapidly, leading to an increasing backlog in cases. The SIBTF Claims Unit has increased staffing and hired more examiners to keep up with the volume of applications, reaching a high of 24 examiners on staff in 2023. Nevertheless, these increases have not been enough to meet the demands of the growing trend in applications. As demonstrated by the growth in OD Legal appearances, other parts of DIR staff have experienced workload changes in keeping with this grown trend as well.

Chapter 5. Results: SIBTF Payments and Payees

In this chapter, we describe trends in benefit payments made by the SIBTF to injured workers. Benefit payments include both lump sum settlements (paid in cases resolved by C&R) and ongoing benefit payments (paid in cases resolved by Stipulations or F&A). We also examine non-benefit payments made by the SIBTF Fund to attorneys, medical examiners, VR experts, and copy services.

As elsewhere in this report, we split our study period into three periods (2010–2015, 2016–2019, and 2020–2022) for purposes of reporting summary statistics in tables. In contrast to Chapter 3, however, most exhibits in this chapter analyze payments by the calendar year in which they were made, rather than by the year in which the case that led to the payments was opened or resolved. To isolate growth in payments from rising prices and wages over time, dollar amounts reported in this chapter are inflated to real 2023 dollars unless otherwise noted.[43]

Total SIBTF Payments Since 2010

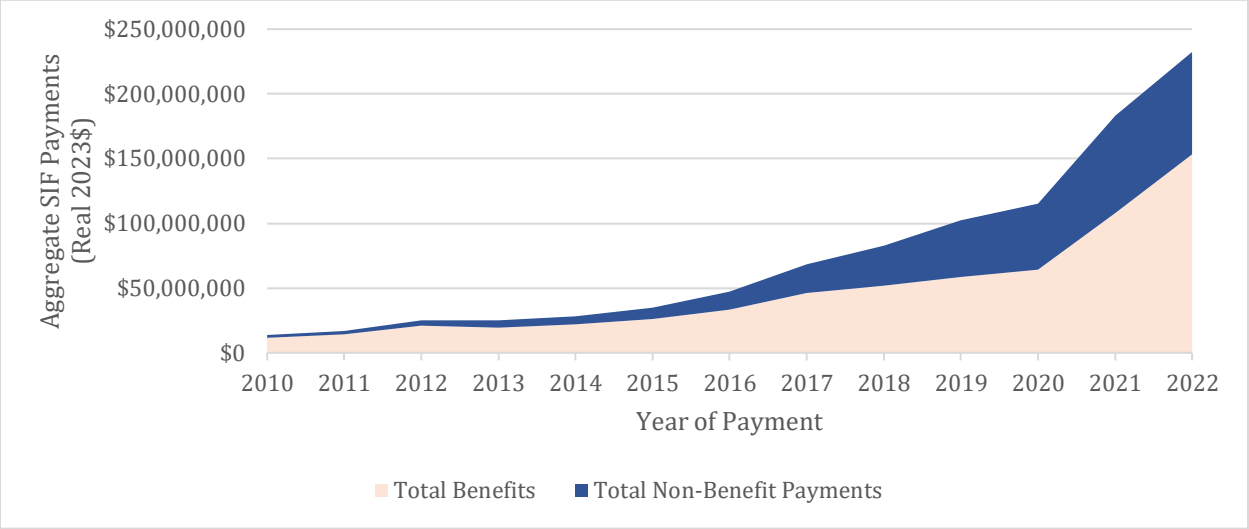
Figure 5.1 shows the total amount paid by the SIBTF in each year between 2010 and 2022 on cases in our study population.[44] Between 2010 and 2022, total annual payments from the SIBTF on cases in our study population grew from $14 million in 2010 to $232 million in 2022. Growth in payments occurred both for benefits paid to injured workers (which grew from $6 million in 2010 to $127 million in 2022) and in payments to attorneys and other vendors (which grew from $2 million in 2010 to $79 million in 2022).

In total, the SIBTF paid $975 million between 2010 and 2022 on cases in our study population, comprising $630 million in payments to injured workers and $345 million in non-benefit payments to attorneys and other vendors.

[43] We used the yearly growth rate in the SAWW for inflation adjustment. SAWW and yearly growth rate from 2010 to 2024 obtained from DIR (2023a).

[44] Because Figure 5.1 does not include payments on 1,632 cases with payments between 2010 and 2022 that were resolved prior to 2010, aggregate fund payments reported in the figure are slightly lower than the actual total. When benefit payments on these earlier cases are included, total payments in 2010 are higher ($33 million in real 2023 dollars) than reported in Figure 5.1, implying a less dramatic growth rate. Even when these cases are included, however, real annual payments from the SIBTF grew by 633 percent during our study period, from $33 million in 2010 to $241 million in 2022. Including these earlier cases, the SIBTF paid $1.15 billion between 2010 and 2022, comprising $785 million in benefit payments to injured workers and $365 million to in non-benefit payments to attorneys and other vendors.

Figure 5.1. Aggregate Benefit and Non-Benefit Payments from SIBTF, 2010–2022



SOURCE: RAND analysis of SIBTF Claims Unit transaction data.
NOTE: Amounts are inflated to 2023 dollars using growth in the SAWW. "Benefit Payments" = amount paid in calendar year to workers via C&R lump sum settlements or ongoing benefits provided under a Stipulations or a Findings and Award. "Non-Benefit Payments" = payments to payees other than injured workers, including attorney fees, medical-legal exam payments, copy service fees, VR payments, and payments to other vendors. Payments associated with cases that were resolved before 2010 are not included, so total payments may not match those published in CHSWC reports or used to determine the SIBTF assessment. Data reflect 27,047 cases, of which 13,217 had at least one benefit or non-benefit payment from the SIBTF between 2010 and 2022.

This growth in aggregate payments is likely to reflect growth in the number of cases resolved with benefits (as discussed in Chapter 3 above), but also reflects changes in benefits per case as well as changes in non-benefit payments driven by changes in utilization of vendors by applicants. For example, we showed in Chapter 3 that the proportion of cases with new medical-legal reports and the average number of reports per worker increased substantially between 2010–2015 cases and 2016–2019 cases.

To provide more insight into which types of payments contributed to the growth in overall SIBTF payments, the remainder of this chapter presents estimates of average lump sum settlement and benefit payments per case, as well as data on non-benefit payments to vendors.

Trends in Benefit and Non-Benefit Payments

Table 5.1 summarizes total payments, benefit payments, and non-benefit payments per case among cases receiving payments of each type. The table reports the average payment to date among cases receiving each type of payment in that year, along with other statistics (such as the median, quartiles, minimum, and maximum). We note that the sample size changes across the rows because non-benefit payments were made on many cases that are unresolved or that were resolved without benefits paid to the worker.

Table 5.1. Average Benefit and Non-Benefit Payments per Case over 2010–2022

Type of Payment	Mean Paid Amount	Minimum Paid Amount	25th Percentile Paid Amount	Median Paid Amount	75th Percentile Paid Amount	Maximum Paid Amount	*N* Cases with 1+ Payment
Total payments	$73,053	$3	$12,938	$32,347	$68,283	$1,325,705	13,216
Benefit payments	$110,403	$50	$26,478	$58,100	$127,954	$1,112,742	5,711
Non-benefit payments	$26,128	$3	$6,542	$19,334	$36,996	$297,867	12,820

SOURCE: RAND analysis of SIBTF Claims Unit transaction data.
NOTE: Amounts are inflated to 2023 dollars using growth in the SAWW. Each row reports statistics on cases with one or more payments of each type received, so rows reflect different numbers of cases, as indicated in column "*N* Cases with 1+ Payment."

By the end of 2022, the 5,711 injured workers in our study population who had received benefits between 2010 and 2022 had received an average of $110,403 in benefits. The 12,820 cases with non-benefit payments averaged $26,128 in non-benefit payments. We note that although attorney fees are generally not paid unless the worker receives benefits, payments for medical-legal reports, VR reports, and copy services used during adjudication may be paid while a case is still pending, and can be paid even if the case does not result in benefits for the worker. Non-benefit payments are examined in detail later in this chapter.

Averaged over all cases with any payments (including those with non-benefit payments only), the average amount of total (benefit and non-benefit) payments made between 2010 and 2022 was $73,053 per case on 13,216 cases in our study population.

Additional information about trends in yearly benefits per case is available in Table C.11. The average yearly amount of payments among cases receiving payments increased over time for both benefit payments and non-benefit payments. (Table C.11 reports payments per year instead of total payments per case to avoid potentially misleading comparisons between the paid-to-date total on cases that were opened at different times.) The average amount of benefits received per year among cases receiving any benefits increased from $32,351 per year in 2010–2015 to $37,554 in 2016–2019 and $51,132 per year in 2020–2022. Non-benefit payments per year also increased substantially over this time, from an average of $5,713 per year in 2010–2015 to $7,971 per year in 2016–2019 and $11,506 per year in 2020–2022.

Benefit Payments to Workers for Each Type of Resolution

Table 5.2 shows the average benefit to date for the two major types of benefits: lump sum settlements through C&Rs, and ongoing benefit payments through Stipulations or F&As. These statistics reflect the total amount paid to date on cases in our study population as of 2022, and thus do not reflect liability associated with future payments. For cases resolved through Stipulations or F&A, amounts reported in this chapter understate the total liability associated with the case by a substantial amount because benefit payments will continue until the death of

the worker. The gap between benefit payments to date and liabilities is especially large for cases with recent resolutions. In addition, some cases resolved with benefits have not received any benefit payments yet (and therefore are excluded from statistics on benefits in this chapter). Readers interested in the lifetime cost of a case or the Fund's future liabilities can find these issues analyzed in Chapter 6.

The average amount of total benefits paid through 2022 on a Stipulations or F&A resolved between 2010 and 2022 was $193,142. While this average reflects some workers with very large cumulative benefits (the maximum paid to date benefit amount was $1.1 million), most workers with Stipulations or F&A had received over $100,000 in paid benefits by 2022: the median paid amount over 2010–2022 was $132,627, and one in four injured workers with Stipulations or F&A had received over $271,807 between 2010 and 2022.

C&R settlements averaged $48,256. Table 5.2 shows that the median C&R settlement payment was $36,864, and the 75th percentile was $64,093, both fairly modest amounts compared with the cumulative payments typical on benefits resolved by Stipulations or F&A. Although the maximum C&R settlement payment was substantial ($437,108), the distribution of C&R settlement payments suggests that most C&R settlement payments made by the SIBTF are on cases where the applicant accepts a sharp discount on the value of benefits that might be obtained by a successful case, perhaps because the likelihood that the case will succeed at trial may be low.

Table 5.2. Average Benefit Payments by Type of Resolution, 2010–2022

Type of Payment	Mean Paid Amount	Minimum Paid Amount	25th Percentile Paid Amount	Median Paid Amount	75th Percentile Paid Amount	Maximum Paid Amount	*N* Cases with 1+ Payment
C&R lump sum settlements	$48,256	$37	$17,877	$36,864	$64,093	437,108	3,332
Stipulations or F&A ongoing benefits	$193,142	$13	$60,967	$132,627	$271,807	1,112,742	2,432
Benefit payments	$110,403	$50	$26,478	$58,100	$127,954	$1,112,742	5,711

SOURCE: RAND analysis of SIBTF Claims Unit transaction data.
NOTE: Real 2023$. Amounts are inflated to 2023 dollars using growth in the SAWW. "C&R" = Compromise and Release. "F&A" = Findings and Award. Samples in the rows of the table are not mutually exclusive, since cases may receive both C&R and ongoing benefit payments over time. "Benefit payments" row (reflecting total amount received via C&R or Stipulations or F&A) repeated from Table 5.1 for convenience.

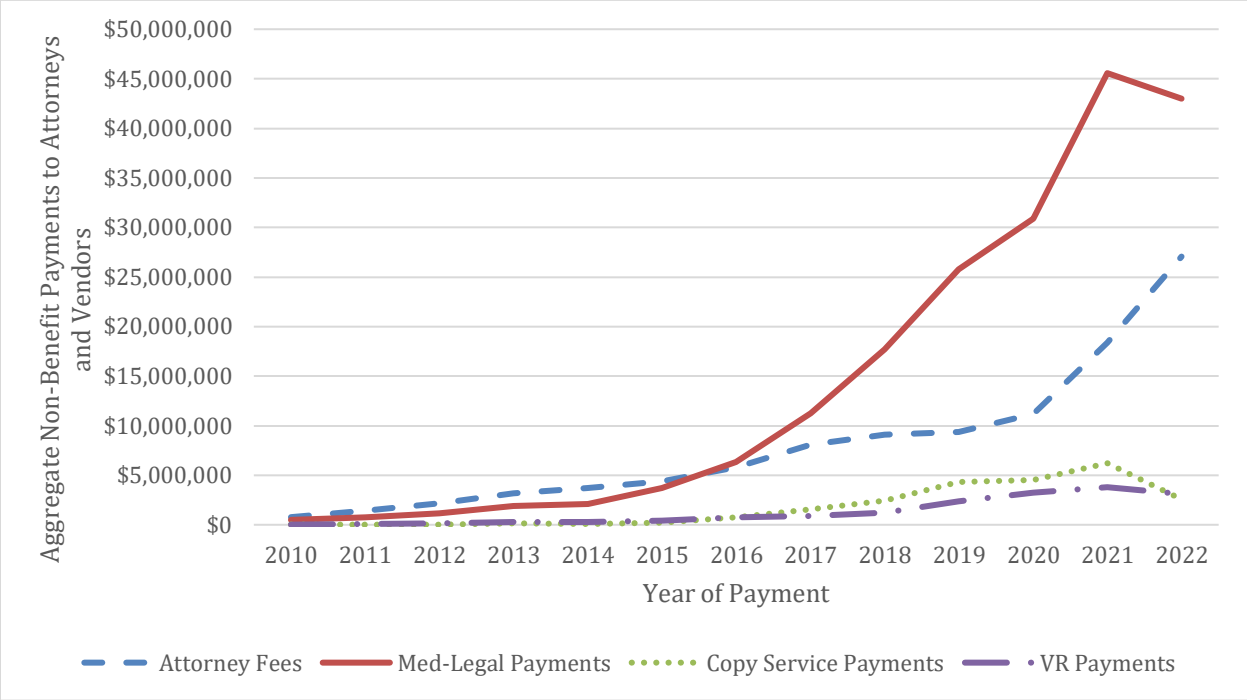
Non-Benefit Payments to Attorneys and Other Vendors

Figure 5.2 shows how non-benefit payments made by the SIBTF between 2010 and 2022 were split between four major categories: attorney fees, medical-legal report fees, VR report fees, and copy services. These four vendor categories account for 97 percent of aggregate non-

benefit payments between 2010 and 2022, with the remainder mostly composed of interpreter fees.

Medical-legal report payments constituted the majority of non-benefit payments between 2010 and 2012, totaling $191 million out of $345 million in total non-benefit payments for cases in our study population. Attorney fees were the second-largest category of non-benefit payments, totaling $105 million over 2010–2022. Copy service fees totaled $23 million, and VR report payments totaled $17 million.

Figure 5.2. Aggregate Non-Benefit Payments from SIBTF by Type of Payee, 2010–2022



SOURCE: RAND analysis of SIBTF Claims Unit transaction data.
NOTE: Amounts are inflated to 2023 dollars using growth in the SAWW. Payments associated with cases that were resolved before 2010 are not included, so total payments may not match those published in CHSWC reports or used to determine the SIBTF assessment. Data reflect 27,047 cases, of which 12,820 had at least one non-benefit payment from the SIBTF between 2010 and 2022.

As Figure 5.2 shows, aggregate medical-legal report payments grew rapidly during the study period, from $493,000 in 2010 to $43 million in 2022. Aggregate attorney fees also grew rapidly, from $770,000 in 2010 to $27 million in 2022, though we note that this was slower than the growth observed among medical-legal report payments. Copy service and VR payments actually increased at faster rates during this period, but from very small baseline amounts: aggregate payments in 2010 were about $29,000 for copy services and about $17,000 for VR report payments.

The overall growth in non-benefit payments was thus driven primarily by increases in the total amount of medical-legal report payments and attorney fees. (Estimates that include 2010–2022 payments on cases resolved before 2010 are very similar and are not presented here.)

Table 5.3 reports average non-benefit payments per case for attorneys, medical-legal examiners, and VR consultants. We caution that 46 percent of copy service payments since 2021 could not be matched with a specific SIBTF case.[45] The statistics for copy service payments per case in Table 5.3 exclude these payments since the number of cases that generated copy service payments in recent years is unknown.

Table 5.3. Average Non-Benefit Payments to Date for Attorney Fees, Medical-Legal Reports, and VR Reports, 2010–2022

Type of Payment	Mean Paid Amount	Minimum Paid Amount	25th Percentile Paid Amount	Median Paid Amount	75th Percentile Paid Amount	Maximum Paid Amount	*N* Case-Year Observations with 1+ Payment (VR)
Attorney fees	$19,820	$13	$4,477	$10,598	$23,661	$194,668	5,281
Medical-legal payments	$21,600	$4	$8,659	$19,148	$29,665	$263,577	8,827
Copy service	$2,746	$7	$831	$2,182	$3,836	$30,816	5,277
VR	$7,039	$26	$5,338	$6,960	$8,168	$24,415	2,349

SOURCE: RAND analysis of SIBTF Claims Unit transaction data.
NOTE: Amounts are inflated to 2023 dollars using growth in the SAWW. Copy service payment statistics in this table reflect only payments that could be allocated to an individual SIBTF case and exclude $8,373,381 in bulk payments that could not be allocated to individual cases. The number 5,277 is therefore a lower bound for the number of SIBTF cases that generated copy service payments.

On average, attorneys had received $19,820 to date per case for cases with attorney payments.[46] The median amount paid to date was $10,598. Medical-legal payments per case were higher than attorney fees, averaging $21,600 per case for cases with payments. The median amount paid on a case was $19,148. Furthermore, medical-legal payments were made on 67 percent more cases than attorney fees: both the higher average payments and the larger number of cases with medical-legal payments contributed to the large volume of medical-legal payments

[45] The SIBTF Claims Unit adopted a bulk payment system for copy fee invoices in 2021 that made it impossible to determine which, or even how many, distinct SIBTF cases involved the payment of copy fees in more recent years. However, average yearly copy service payments on cases that could be linked to their copy service payments during this period are comparable to the average observed before bulk payments began (further details are available in Table C.11). Copy fees paid through this bulk payments system are excluded from calculations of average payments per case, but are included in estimates of aggregate payments and in analyses of the distribution of payees shown below.

[46] We note that attorney fees on cases resolved by Stipulations or F&A are paid out over time, similar to benefits, and therefore will continue into the future. Attorney fees on cases resolved by C&R are paid at once along with the lump sum settlement.

as a proportion of non-benefit payments made by the SIBTF. VR payments were more modest, averaging $7,039 per case for cases with payments. We note that the SIBTF does not pay VR benefits to applicants; instead, VR payments from SIBTF reflect payments made to VR experts for reports they produce, typically at the request of the applicant, to provide evidence of a worker's disability in support of an SIBTF claim. VR payments were less common compared with other vendor types. Finally, copy service payments on cases for which case-level payments could be measured were $2,746 on average. (See Footnote 45 on limitations of the copy service payment data.)

In Table C.12, we report trends in yearly non-benefit payments per case for each type of vendor. Among cases receiving payments in a given year, average yearly attorney fees increased by 74 percent and average yearly medical-legal payments increased by 114 percent between 2010–2015 and 2020–2022. These trends in payments per case contributed to the rapid growth in aggregate payments described above.

Top Payees by Payment Type

As requested by DIR, we constructed tables listing the top 20 payees in each of the four non-benefit categories analyzed here.[47] It is important to note that payees include a mix of business entities (e.g., law firms, medical management firms, or copy services) and sole practitioners (individual physicians or attorneys). By showing the distribution of payments, SIBTF cases, and transactions within each payee category, we can learn what share of payments have accrued to specific large players within the SIBTF ecosystem between 2010 and 2022 (Figure 5.3). As elsewhere in this report, attention was restricted to payments associated with cases in our study population, meaning that some payments associated with cases resolved before 2010 were excluded.

This report does not identify by name the top payment recipients, but we summarize key information about the magnitude of payments to top recipients here:

- The top recipient of medical-legal evaluation fees, an entity, was paid approximately $30.2 million during the study period. The second- and third-highest recipients, both entities, were each paid approximately $21 million during the study period.
- The top recipient of attorney's fees, an individual, was paid approximately $14 million during the study period. The second highest recipient of attorney's fees, a law firm, was paid approximately $8 million during the study periods. Both of these recipients are based in the San Jose area.
- The top recipient of copy service fees, an entity, was paid approximately $14.6 million during the study period. This entity plainly dominated in the market for these services in that the next highest recipient was paid approximately $3.4 million during the study period.

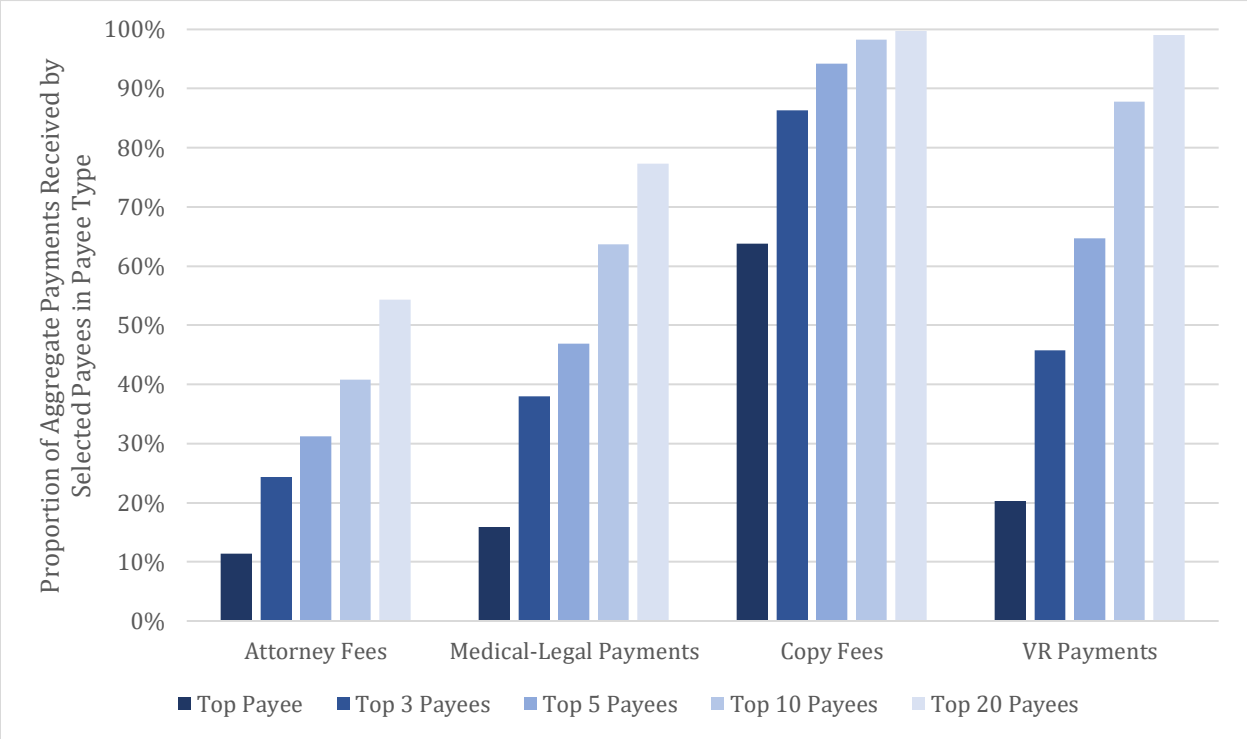
[47] These data are being provided to DIR's contracting officer's representative along with the report.

- The top recipient of VR report payments, an entity, was paid approximately $3.3 million during the study period. The second-, third-, and fourth-highest recipients were paid between $2.1 and $1.9 million during the study period, respectively.

Medical-Legal Payees

We identified 647 distinct medical-legal report payees in the SIBTF Claims Unit transactions data, who collectively received $191 million in medical-legal report payments. The largest payee received $30 million in SIBTF payments for work on 1,397 cases between 2010 and 2022. This amount made up 16 percent of total medical-legal payments from the SIBTF during our study period. Together, the top five payees received 47 percent of medical-legal payments, the top 10 received 64 percent of medical-legal payments, and the top 20 received 77 percent of medical-legal payments.

Figure 5.3. Proportion of Aggregate Payments Received by Top Payees by Payee Type, 2010–2022



SOURCE: RAND analysis of SIBTF Claims Unit transaction data.
NOTE: Total *N* payees = 1,306 for attorneys, 647 for medical-legal examiners, 41 for copy services, and 34 for VR.

Attorney Fee Payees

We identified 1,306 distinct attorney fee payees in the SIBTF Claims Unit transactions data, who collectively received $124 million in attorney fees. The largest payee received $14 million in SIBTF payments for work on 328 cases between 2010 and 2022. This amount made up 11 percent of total attorney fee payments from the SIBTF during our study period. Together, the top

five payees received 31 percent of attorney fees, the top 10 received 41 percent of attorney fees, and the top 20 received 54 percent of attorney fees.

VR Report Payees

We identified 34 distinct VR report payees in the SIBTF Claims Unit transactions data, who collectively received $17 million in VR report payments. The largest payee received $3.4 million in SIBTF payments for work on 444 cases between 2010 and 2022. This amount made up 20 percent of total VR payments from the SIBTF during our study period. Together, the top five payees received 65 percent of VR report payments, the top 10 received 88 percent of VR report payments, and the top 20 received 99 percent of VR report payments.

Copy Service Payees

We identified 41 distinct copy service payees in the SIBTF Claims Unit transactions data, who collectively received $23 million in copy payments. The largest payee received $15 million in SIBTF payments between 2010 and 2022. (Recall that we are unable to determine how many unique cases had associated copy service payments due to limitations of the SIBTF Claims Unit transactions data.) This amount made up 64 percent of total copy service from the SIBTF during our study period. Together, the top five payees received 94 percent of copy service payments, the top 10 received 98 percent of copy service payments, and the top 20 received 99.8 percent of copy service payments.

Discussion

This chapter analyzed how trends in various types of payments contributed to the rapid growth of benefit and non-benefit payments from the SIBTF fund between 2010 and 2022. In Chapter 3, we documented growing numbers of cases resolved with benefits (which result in benefit payments and attorney fees) and SIBTF applications (which can result in non-benefit payments to vendors before adjudication is complete). In this chapter, we examined data on total payments by type and yearly payments per case to show that growth in aggregate payments was also driven by increasing amounts paid per case with benefit payments, and not just by growth in the number of applications or case resolutions with benefits.

Taken together, the shift in case resolution from C&R settlements toward ongoing benefit payments through Stipulations or F&A has contributed to the acceleration in SIBTF benefit payments by creating a larger stock of cases that have continued payments over time. We saw in this chapter that the cumulative amount of benefits paid on cases with Stipulations or F&A is several times larger than the average C&R settlement. Both because these cases are associated with larger total SIBTF payments, and because these SIBTF payments generally last until the death of the injured worker, growth in the number of cases resolved with ongoing benefits rather than lump sum settlements will lead to continued acceleration in the payments made by the SIBTF. An especially important change contributing to faster growth in benefits is the increase

since 2020 in the proportion of cases resolving with PTD benefits (rather than permanent partial disability benefits and an LP). Although we lacked sufficiently granular data on the ratings associated with individual impairments to directly model the impact of the *Todd* decision, the changes in disability evaluation resulting from *Todd* coincided with changes in case resolution that will likely result in continued growth in SIBTF payments.

Attorneys are typically paid 15 percent of a workers' compensation benefits, and so growth in attorney fees can be understood as a consequence of higher numbers of cases resolved with benefits, as well as increases in the benefits paid. Direct comparison of attorney payment amounts with benefits should be interpreted with caution, and we did not attempt to analyze future attorney fees or SIBTF liabilities associated with attorney fees separately from the Fund's liability on benefits inclusive of attorney fees.

We also saw that growth in other types of non-benefit payments—especially medical-legal payments—also played an important role in the increases in total SIBTF payments.

To observers of California's workers' compensation system, the level and growth rate of medical-legal, copy service, and VR payments on SIBTF cases may be surprising. As discussed in Chapter 2, California has had a fee schedule for medical-legal reports throughout our entire study period that provides for much lower levels of reimbursement than were observed in the SIBTF transactions data.[48] Since April 2021, a revision to the medical-legal fee schedule set the payment for a medical-legal evaluation at $2,025. Estimates reported by the Workers' Compensation Research Institute (WCRI) show that, over the past decade, lost-time claims with medical-legal expenses in California averaged between $3,500 and $4,500 of medical-legal expenses as of 48 months post-injury.[49] The 2021 revision to the fee schedule, which was designed to increase medical-legal payments in order to attract more qualified medical evaluators (QMEs) to participate in the system, has resulted in sharp increases in medical-legal payments, but the average medical-legal payments on SIBTF cases remain approximately four to five times higher than observed elsewhere in the workers' compensation system.

One explanation for the gulf between the levels of medical-legal payments in the SIBTF and the rest of the workers' compensation system has to do with the lack of regulation of medical-legal reporting for SIBTF cases. In regular workers' compensation cases, the resolution of medical issues necessary to determine compensability and levels of impairment is done through the process of a medical-legal evaluation, and specifically through the QME process. (Labor Code §§ 4060–4068). Since the reforms of the QME process in 2003 (SB 899) and again in 2012 (SB 863), including as set forth in Labor Code § 4062.2, QME reports may be obtained only as

[48] A fee schedule for copy services was mandated by the legislature in 2013 as part of SB 863 and first became effective in 2015.

[49] William Monnin-Browder, *CompScope™ Benchmarks for California, 23rd Edition*, WCRI Report WC-23-01, Workers Compensation Research Institute, April 2023.

authorized by statute, which requires a panel appointment process, and limits the circumstances under which an applicant may obtain any new or additional evaluations.

The WCAB has held, however, that the Labor Code provisions governing medical evaluations in regular workers' compensation cases, including § 4062.2, apply only to cases involving employers and do not apply in SIBTF cases. As a result, although some applicants use the QME appointment process, it is not required, and it is possible for applicants' attorneys to choose the evaluating physicians and obtain multiple evaluations per case specifically to support the SIBTF case. The high and growing number of reports per case paid by the SIBTF (as documented in Chapter 4) is consistent with such behavior.

The nature of SIBTF cases, which require proof of PPDs, also contributes to the high level of payments for medical evaluations. As discussed in Chapters 2 and 4, SIBTF cases often involve a large number of distinct health conditions that may have had onset at any time during the worker's life—a far more complex medical history than is typical in workers' compensation.

As a result, applicants' attorneys may request (and evaluating physicians may review) a whole lifetime's worth of medical records, resulting in unusually high medical-legal report fees. Under the current medical-legal fee schedule, evaluating physicians are compensated for medical record review at a rate of $3 per page for record review beyond an allowance of 200 pages that is built into the flat fee. SIBTF Claims Unit staff indicated that the volume of records reviewed can reach into the tens of thousands of pages in some extreme cases. These patterns likely explain some of the outliers in QME payments observed in the SIBTF transactions data, which reach as high as $250,000 on a single case.[50]

Retrieval of large volumes of medical records from a wide range of providers may also help to explain how copy service payments observed in SIBTF cases could average $2,700 per case ($2,200 at the median), more than ten times the flat rate provided under the current copy service fee schedule for retrieval of a set of records from a single custodian.[51]

A secondary factor that may contribute to high medical-legal expenses is the fact that the QME process has not been applied to SIBTF cases, as discussed above. Although SIBTF Claims Unit staff indicated that OD Legal does not typically engage a separate medical evaluator, they observed that the use of a new medical evaluator distinct from the QME involved in the SII may require the medical evaluator engaged by the applicant for the SIBTF to review records from the SII that were reviewed already by the SII QME.[52] This could result in payments for record review that might not be necessary if the same QME from the SII were used in the SIBTF case.

Furthermore, the high number of medical-legal reports per SIBTF case (3.6 per case) may also reflect the involvement of evaluating physicians from multiple specialties. SIBTF Claims Unit staff observed that the QME process followed in regular workers' compensation cases

[50] Eric Krouse, Supervising WCC, DWC, personal communication, March 13, 2024.

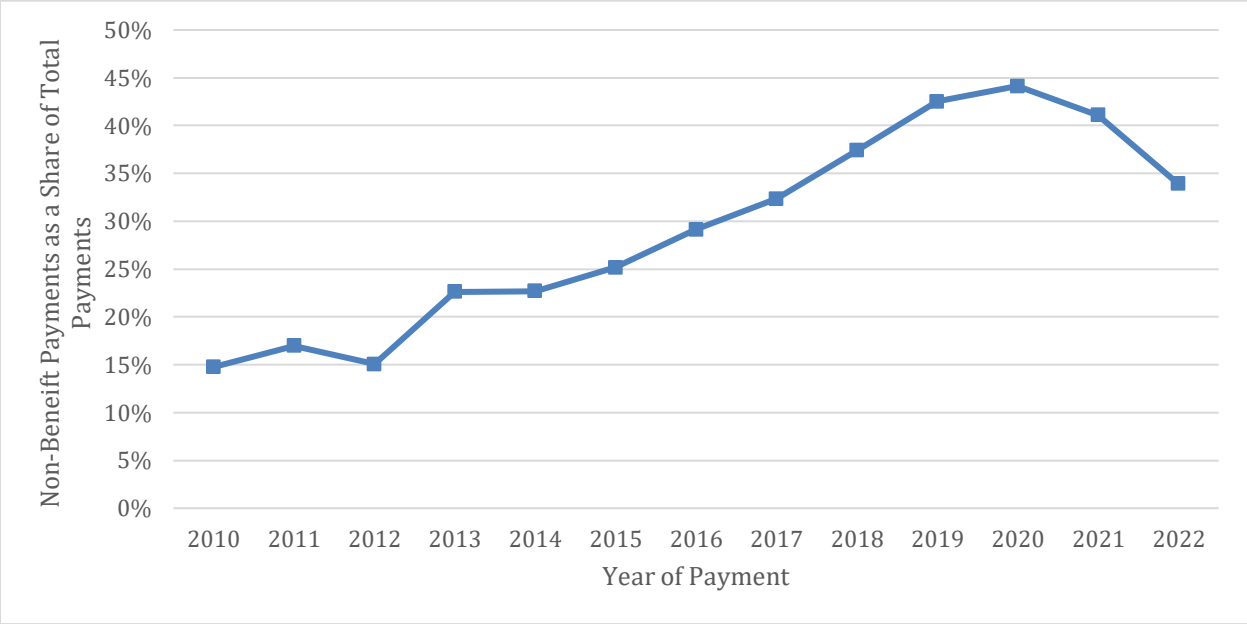
[51] DIR, "Copy Service Rate Schedule," webpage, July 15, 2022b.

[52] Krouse. 2024.

reduced the number of distinct specialists involved in a case, both because evaluation is provided by a single QME in each specialty (as opposed to "dueling" defense and applicants' experts), and because a "lead QME," rather than the attorney, makes the determination whether other specialists are required.[53] These limitations on the QME process do not apply to SIBTF cases.

Regardless of the precise reasons why medical-legal and other vendor payments from the SIBTF have grown so rapidly, it may be helpful to consider how the share of non-benefit expenses in the system has grown over time. Figure 5.4 plots the ratio of non-benefit to total payments by year. This figure shows that the proportion of total payments composed of non-benefit payments grew from below 20 percent in 2010–2014 to a peak of 40 percent in 2020. Non-benefit payments have continued to grow, but the proportion of SIBTF payments associated with non-benefit payments fell because benefit payments have grown even more rapidly since 2020.

Figure 5.4. Non-Benefit Payments as a Percentage of Total SIBTF Payments, 2010–2022



SOURCE: RAND analysis of SIBTF Claims Unit transaction data.

Medical-legal, VR, and (especially) copy service payments from the SIBTF are highly concentrated among a small number of vendors, with payments to some of the largest players accounting for large shares of the total and millions of dollars over 2010–2022. Attorney fees paid to date are less concentrated in comparison. Finally, we note that continued growth in the backlog of pending cases means that the ultimate liabilities of the SIBTF may be growing even faster than payments. We examine liabilities in the next chapter.

[53] Krouse. 2024.

Chapter 6. Results: Liabilities of the SIBTF

Understanding the full financial impact of the recent trends in SIBTF cases requires an estimate of the total lifetime cost of each case resolved with benefits. Estimating the total lifetime cost of resolutions via C&R is straightforward, as the value of the C&R settlement reflects the total cost. In contrast, every worker receiving ongoing benefits via Stipulations or F&A will receive some type of benefit for the rest of their life, and the lifetime liability in these cases must therefore be estimated. To produce estimates of the total liability that SIBTF could incur on the cases in our study population, we estimated lifetime benefit payments and, for currently pending cases, the probabilities of different outcomes. We additionally incorporated the non-benefit payment costs discussed in Chapter 5. (Our models and statistical methods are described in Appendix B.) Unless otherwise noted, dollar amounts reported in this chapter are adjusted to real 2023 dollars.[54]

This chapter reports our estimates of the SIBTF's liability. We note that the liability estimates reported in this chapter include only cases that had resolved between 2010 and the time of data collection in May 2023, or that were still pending at the time of data collection. Liability on cases that have been filed since data collection ended, or on cases that will be filed in the future, is not included in these estimates.[55]

The type of benefits paid by the SIBTF—and the value of the benefits—vary with several key factors. The first factor is the worker's disability ratings. As discussed in Chapter 2, if the combined rating is 100 percent, the worker is eligible to receive PTD benefits rather than LP benefits. The PTD benefit formula results in much larger payments than LP benefits, in large part because the weekly payment rate (which is the same as the rate for TTD benefits) is capped at a much higher level. Second, the benefits to be paid by SIBTF depend on the offset that is applied for the degree of PD assigned to the SII, including the offset of an LP assigned to the SII if the worker's SII rating exceeds 70 percent. Third, the value of all benefit types depends on the worker's pre-injury wage. Fourth, the total lifetime cost of the benefit is also determined by the worker's age at injury and remaining life expectancy. Finally, the SIBTF's liability depends on whether SIBTF benefits are reduced by credits for previously received payments for the PPDs, such as prior tort compensation, SSDI, or disability retirement payments.

[54] We used the yearly growth rate in the State Average Weekly Wage (SAWW) for inflation adjustment. Source for SAWW and yearly growth rate from 2010-2024: https://www.dir.ca.gov/dwc/WorkersCompensationBenefits.htm, accessed 3/12/24.

[55] Note that in prior chapters, we focus on cases that were in the system as of the end of 2022, as this was the time window chosen for data collection. Because we have information on the outcomes and payments of these cases through the time the data was pulled in May 2023, we focus on this slightly longer window when considering liabilities as it provides the most current picture of the status of resolutions and payments.

As discussed in Chapter 2, in both regular and in SIBTF cases with ratings between 70 percent and 99 percent, the LP benefit begins after permanent partial disability[56] benefit payments end. Once these payments have ended, payments continue at a different LP rate until death. For workers with PTD (100 percent), payments begin at the P&S date and continue at the fixed formula for the rest of the worker's life.[57] PTD and LP payments are COLA-adjusted in every subsequent year.[58]

As discussed above in Chapter 2, all benefits are a function of workers' pre-injury wages, but the values of these payments vary considerably. In the maximum scenario (where a worker has a wage that is over the maximum average weekly wage rate set by statute and a partial disability rating up to 99 percent), the weekly rate for PD payments is $290 and the maximum weekly rate for LP payments is $301. PTD payments also vary with the workers' wage, but the maximum is set much higher, based on a formula that increases each year. The weekly rate that applies is the rate in effect on the date of the SII. In 2023, the maximum weekly rate was $1,619.[59] Therefore, these benefit payments are much more generous—meaning there is a sharp increase in payments from a rating of 99 percent to 100 percent: total monthly payments could grow from $1,200 per month (under the maximum LP rate) to $6,476 per month (under the maximum PTD rate).

Figures 6.1 and 6.2 further illustrate the impact of these factors on total liability. Figure 6.1 shows an example of the impact of reaching a 100-percent rating. The figure shows the estimated total present discounted liability for a hypothetical worker with an SII rating of 53 percent and who was 50 years old at the time of the SII injury occurring in 2020 and had an average weekly wage of $850 prior to their injury. These factors are held constant, and we vary the total combined disability rating from 70 to 100 percent. Total expected liability jumps from $230,000 with a combined rating of 99 percent to $938,000 when the combined rating reaches 100 percent—when everything else about the worker and the benefit are exactly the same.

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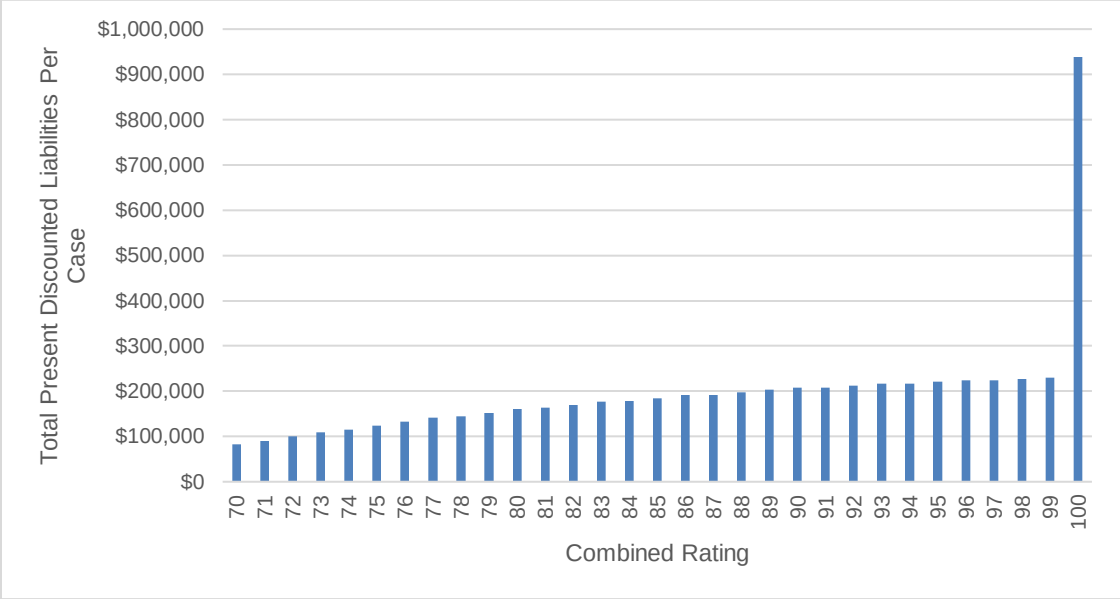
[56] In this context, the term "permanent partial disability" is used generally to refer to a workers' compensation benefit type, and should not be confused with PPD, which throughout this document refers to the specific pre-existing permanent partial disability that is the qualifying pre-existing disability for purposes of filing an SIBTF claim under Labor Code § 4751.

[57] Following *Baker v. Workers' Comp. App. Bd.*, SIBTF liability begins either at the P&S date or after TTD benefits end for the SII (104 weeks following the SII DOI), whichever is earlier. In our abstraction sample, approximately 30 percent of cases resolved during or after 2017 with a lifetime benefit had more than 104 weeks between the date of the SII and P&S date. However, our calculations start SIBTF liability at the P&S date, which means that in some cases we are undercounting the total liability on the case. The impact on total liabilities, however, is likely small.

[58] More precisely, both the employer's and SIBTF's liability to commence PD payments begins either on the P&S date or after 104 weeks of TD have been paid if the worker has not yet reached P&S status (Labor Code § 4650). Because the SIBTF case will not be resolved until a substantially later time, SIBTF's liability will typically include "retro" payments. For purposes of calculating total liabilities, these retro payments are included within and not calculated separately from the total liability calculated for the case.

[59] Rates obtained from DIR (2023a).

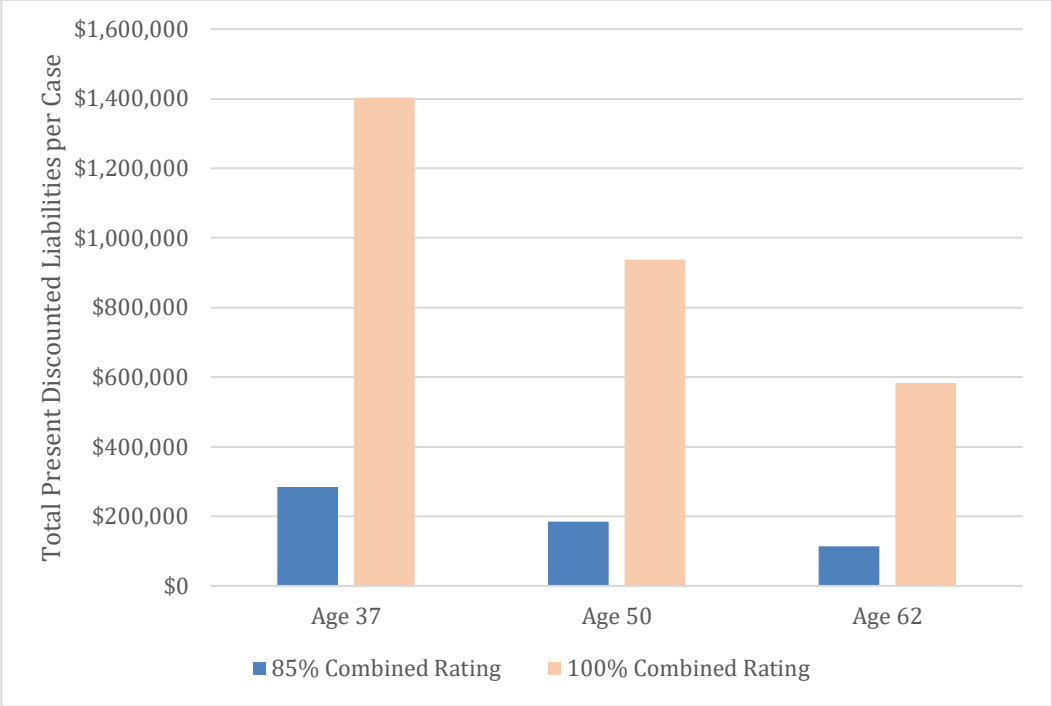
Figure 6.1. Impact of 100% Combined Rating on Expected Liability



SOURCE: Authors' simulations using RAND liability calculator.
NOTE: Values shown in 2023 dollars. The figure shows total present discounted liabilities for a worker under scenarios with different combined PD ratings. In each scenario, the worker is assumed to be 50 years old at the time of injury, and has an SII rating of 53 and a pre-injury weekly wage of $850. We assume no credits were applied. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3%. Future COLAs for LP and PTD benefits assumed to be 3.9% beginning in 2025.

Figure 6.2 compares the differences in projected liabilities for a worker with an average wage of $850 if that worker had a combined rating of 85 percent versus 100 percent. We repeat this comparison at three different ages to demonstrate the impact of remaining life expectancy on the total discounted value of these lifetime benefits. In all scenarios, we assume the SII occurred in 2020. For a worker receiving benefits at age 37, total discounted liabilities are projected to be $284,000 with an 85-percent rating and $1.4 million with a 100-percent rating. If the worker were instead 62 at the time of the benefits, total discounted liabilities are projected to be $113,000 with an 85-percent rating and $583,000 with a 100-percent rating.

Figure 6.2. Variation in Expected Present Discounted Liability by Age and Rating



SOURCE: Authors' simulations using RAND liability calculator.
NOTE: Values shown in 2023 dollars. The figure shows total present discounted liabilities for a worker under scenarios with different combined PD ratings. In each scenario, the worker is assumed to have a pre-injury weekly wage of $850. We assume no credits were applied. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3%. Future COLAs for LP and PTD benefits assumed to be 3.9% beginning in 2025.

It is important to remember that the amount of benefits based on the full combined rating is divided between the employer (for the SII portion) and SIBTF (for the additional portion beyond what is allocated to the SII). Permanent partial disability benefit or LP payments for the SII are considered offsets for SIBTF's portion of the total liability of the benefits. The text boxes below provide three examples of the way these offsets work in practice over the life of the worker.

Example 1

Case facts:

- SII occurred in 2019.
- SIBTF case settled by Stipulations at 100 percent; 40 percent allocated to SII.
- Applicant's earnings were at max for scale.
- Assume no disability retirement, SSDI, or credits for other recoveries for PPDs.

Benefits:

- SIBTF: PTD payments starting at P&S date (or after 104 weeks of TD).
- SII: Permanent partial disability payments for 201 weeks, starting at P&S date (or after 104 weeks of TD).

The settlement would be paid out as follows:

- For the initial 201 weeks of the liability period, SIBTF pays $1,251.38 – $290.00 = **$961.38/week**. The employer pays the permanent partial disability payments for the SII at a rate of $290/week for the first 201 weeks for the 40-percent SII allocation.
- After the initial 201 weeks, SIBTF pays the full 100-percent PTD rate of **$1251.38/week** (~$5,005/month) for the remainder of the applicant's life.
- Note that the PTD rate would increase each year due to COLAs.

Example 2

Case facts:

- SII occurred in 2020.
- SIBTF case settled by Stipulations at 80 percent; 40 percent allocated to SII.
- Applicant's earnings were at max for scale.
- Assume no disability retirement, SSDI, or credits for other recoveries for PPDs.

Benefits:

- SIBTF: Permanent partial disability payments for 593.25 weeks, starting at P&S date (or after 104 weeks of TD), followed by LP payments.
- SII: Permanent partial disability payments for 201 weeks, starting at P&S date (or after 104 weeks of TD).

The settlement would be paid out as follows:

- For the initial 201 weeks of the liability period, the employer pays the permanent partial disability payments of $290/week for the SII for the 40-percent SII allocation. This payment fully offsets SIBTF's liability.
- For the next 392.25 weeks, SIBTF pays $290/week for the remaining permanent partial disability benefits owed due to the combined rating of 80 percent.
- After 593.25 weeks, SIBTF pays $154.61/week in LP benefits for the remainder of applicant's life.
- Note that the LP rate would increase each year due to COLAs.

Example 3

Case facts:

- SII occurred in 2021.
- SIBTF case settled by Stipulations at 100 percent; 75 percent allocated to SII.
- Applicant's earnings were at max for scale.
- Assume no disability retirement, SSDI, or credits for other recoveries for PPDs.

Benefits:

- SIBTF: PTD payments starting at P&S date (or after 104 weeks of TD).
- SII: permanent partial disability payments for 513.25 weeks, starting at P&S date, followed by LP payments (or after 104 weeks of TD).

The settlement would be paid out as follows:

- For the initial 513.25 weeks of the liability period, SIBTF pays $1,356.31 – $290.00 = **$1,066.31/week**. The employer pays the permanent partial disability payments for the SII at a rate of $290/week for the first 513.25 weeks for the 75-percent SII allocation.
- After the initial 513.25 weeks, SIBTF pays $1,356.31 – $115.96 = **$1,240.35** for the remainder of the applicant's life. The employer pays the LP rate of $115.96 per week for the remainder of the applicant's life.
- Note that the PTD and LP rates would increase each year due to COLAs.

Liability on Resolved Cases

Table 6.1 shows summary statistics for the estimated present discounted value (PDV) of liability for cases resolved with benefits between 2010 and May 2023. In the first row, we show summary statistics for all cases that received benefits by Stipulations or F&A. The subsequent two rows show summary statistics separately for cases with PTD and cases with permanent partial disability and LP.[60] The final row shows summary statistics for C&Rs, which is quite similar to the distribution of PDV for Stipulations with LP (where combined ratings were between 70 percent and 99 percent). All values are shown in 2023 dollars.

Table 6.1 Distribution of PDVs for Resolved Cases, 2010–2023

Resolution Type	Mean PDV	Minimum PDV	Maximum PDV
All Stipulations or F&A	$649,059	$0	$2,437,741
Stipulations with PTD	$836,299	$0	$2,437,741
Stipulations with LP	$100,283	$0	$375,443
C&R value	$47,790	$1,500	$239,672

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 274 Stipulations or F&A cases and 308 C&R cases. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. Future COLAs for LP and PTD benefits assumed to be 3.9 percent beginning in 2025. All totals adjusted to 2023 dollars after discounting. Averages calculated using sampling weights.

[60] Throughout this chapter, we refer to cases with permanent partial disability and a LP simply as "LP" cases: All SIBTF cases with permanent partial disability benefits qualify for a minimum of an LP after completion of permanent partial disability benefits since the combined rating must be 70 percent or higher for SIBTF benefits.

The average PDV across all cases resolved via Stipulations or F&A was approximately $650,000, compared with approximately $48,000 for cases resolved via C&R. Within each type of cases there is a considerable range: the maximum PDV for a Stipulations or F&A case is estimated to be approximately $2.4 million, whereas the maximum C&R observed during this time period was $239,672. The high values for Stipulations are driven by cases with 100-percent disability ratings: the mean PDV among Stipulations with 100-percent ratings was $836,000 compared with a mean of just over $100,000 and a maximum of $375,000 for Stipulations with final ratings below 100 percent.

Table 6.2 presents total average liabilities for resolved cases, by year of resolution. For ease of comparison, all dollar values are shown in real 2023 dollars. The average PDV of a resolved case has grown from an average of $335,000 for cases resolved between 2010 and 2019 to approximately $479,000 for cases resolved in 2020 or later.

However, the total value of the benefits can vary substantially depending on key characteristics of the case. Therefore, in addition to presenting the overall average, Table 6.2 presents the estimated liability for several key subgroups, including C&Rs, Stipulations or F&As, Stipulations or F&As resolved with 100-percent ratings, and those resolved with ratings less than 100 percent. The total value of C&R settlements was approximately $47,000 for cases resolved from 2010 to 2015 and rose to approximately $72,000 since 2020. The PDV of Stipulations or F&As, however, has grown an average of approximately $750,000 for cases resolved from 2010 to 2019 to approximately $889,000 for cases resolved in 2020 or later.

This growth in the overall average liability of SIBTF benefits reflects shifts in the share of workers receiving different types of benefits. The last two columns of Table 6.2 show that there has not been a corresponding increase in the PDV of PTD benefits (resulting from 100-percent ratings) or benefits with LP (ratings less than 100 percent) between 2016–2019 and 2020–2023. The average value of Stipulations or F&As resolved with 100-percent ratings was $999,000 for cases resolved between 2010 and 2015, rose to $1.17 million for cases resolved between 2016 and 2019, and fell slightly to $997,000 for cases resolved during or after 2020. The average PDV of benefits with LP was approximately $27,000 for the earliest cases resolved between 2010 and 2015. While the average PDV increased to approximately $105,000 for cases resolved starting in 2016, there was only a small increase in the PDV of Stipulations or F&As with less than 100-percent ratings for cases resolved during or after 2020 to $118,000.

Table 6.2. Average Total Liability of Resolved Cases, by Year of Resolution

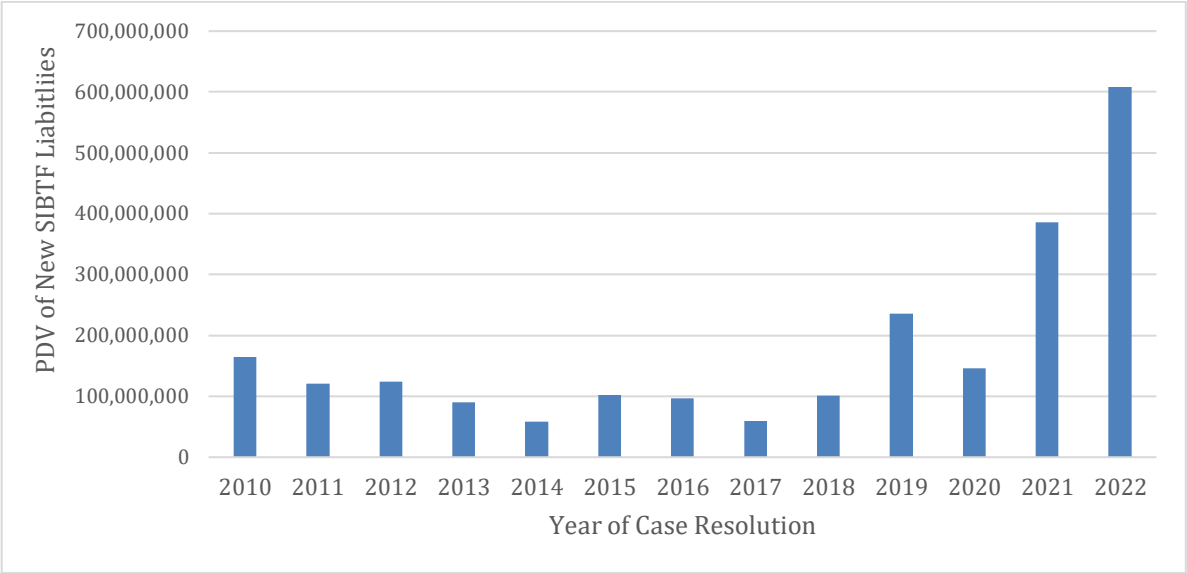
Year of Resolution	Overall	C&Rs	Stipulations/F&A	Stipulations with PTD	Stipulations with LP
2010–2015	$347,388	$46,548	$746,863	$999,470	$27,378
2016–2019	$322,109	$67,019	$750,441	$1,166,607	$105,020
2020–2023	$479,788	$71,826	$889,308	$997,297	$118,531

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 769 cases with a resolution. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. Future COLAs for LP and PTD benefits assumed to be 3.9 percent beginning in 2025. All totals adjusted to 2023 dollars after discounting. Averages calculated using sampling weights.

In Chapter 4, we documented two marked shifts in the outcomes of PD cases since 2020. First, the proportion of cases resolved through Stipulations or F&A increased sharply (as shown in Figure 4.1). Second, the proportion of cases with Stipulations or F&A that received a PD rating of 100 percent or above also increased sharply after 2020 (as shown in Figure 4.7 and Table 4.5). Because, as Table 6.2 shows, the value of benefits with each type of resolution has remained fairly steady, we conclude that growth in the average liability associated with resolved cases is driven by shifts in the distribution of case outcomes (types of resolutions and types of benefits paid for resolutions by Stipulations or F&A) rather than increases in the expected value of any given type of benefit.

Finally, Figure 6.3 shows the trend in aggregate total PDV liabilities for resolved cases, by year of resolution. The figure shows a sharp increase in total discounted liabilities for cases resolved in 2021 and 2022. Prior to 2021, total PDV liabilities from resolutions in a given year ranged between approximately $100 and 200 million. Total aggregated PDV liabilities from 2021 resolutions amounted to $386 million while PDV liabilities from 2022 resolutions amounted to nearly $608 million. For context, recall that in Chapter 5 we reported that a total of approximately $630 million has been paid in benefits over the entire period from 2010 to 2022. In other words, the total liabilities incurred in 2022 resolutions alone is equal to nearly 12 years of total benefit payments. This dramatic increase results from a combination of an increase in total cases resolved with benefits in those years (as shown in Figure 4.2), and the share of these cases resolved via Stipulations and with PTD benefits.

Figure 6.3. Aggregate Total PDV Liability of Resolved Cases, by Year of Resolution



SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 769 cases with a resolution. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. Future COLAs for LP and PTD benefits assumed to be 3.9 percent beginning in 2025. All totals adjusted to 2023 dollars after discounting. Averages calculated using sampling weights.

Predicted Liability Associated with Unresolved Cases

Next, we estimated the predicted liability for cases that had been filed as of the date of our data collection but had not yet been resolved with either benefits or a dismissal. Because there is uncertainty about the final outcome for these unresolved cases, estimating liability required first predicting what the outcome of the case is likely to be, and then assigning a value for the liability for each possible outcome. We distinguish between three possible outcomes:

1. resolution with ratings below 100 percent or C&R
2. resolution with ratings of 100 percent
3. dismissal (no benefits).

We chose to combine benefits with ratings below 100 percent and C&Rs because, as shown in Table 6.1, the distribution of PDV of resolutions with benefits below 100 percent is similar to the distribution of C&Rs: the largest difference in terms of total PDV liability occurs when benefits are granted for a 100-percent disability rating. As an estimate of the liability under each possible case outcome, we use the average PDV observed on resolved cases with that outcome, stratified at the median age in the case population. (Life expectancy is an important factor in the PDV, meaning that liabilities are higher for younger workers who receive benefits.) The final predicted liability for unresolved cases is the expected value of liability associated with the case, or a weighted average of the case's PDV under each possible outcome, where the weight for

each outcome is the probability of that outcome. We describe this process in detail in Appendix B; as shown in Table B.7 the model predicts a 9-percent probability that the claim will be dismissed; a 39-percent probability that the claim will result in benefits with a 100-percent rating; and a 52-percent probability that the claim will result in benefits with a rating below 100 percent (or C&R).

Table 6.3 shows the resulting predicted total PDV liability for unresolved claims, by year of application bins. The expected PDV of unresolved cases filed between 2010 and 2015 is relatively low, at an average of approximately $190,000. This lower value is due to the fact that the model predicts a higher likelihood of dismissal for older unresolved cases.

Table 6.3. Predicted Total PDV Liability for Unresolved Claims, by Year of Application

Year of Application	Predicted Average Liability per Case	Total Population Size
2010–2015	$192,858	2,628
2016–2019	$414,193	5,257
2020–2022	$395,868	6,179

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 278 cases without a resolution. Calculations reflect expected values across three possible outcomes: dismissal, benefits at a 100-percent combined rating and benefits at less than 100-percent rating (or C&R). Expected probabilities for each outcome are multiplied by the average resolved benefit in each of those three categories, with separate averages calculated above and below the median age in the sample. Predicted liabilities estimated using data on cases resolved during or after 2020. Averages calculated using sampling weights.

As shown in Table B.6, cases filed in the past five years are associated with a higher likelihood of resolution with benefits in the model, and the likelihood of resolution with benefits for unresolved cases decreases with the number of years since the application is filed. The expected value increases to approximately $414,000 for cases filed between 2016 and 2019 and $395,000 for cases filed during 2020 or later. Because there is still uncertainty about the final outcome of these cases, the values in this table fall within the range of liabilities for resolved cases where the outcome is known, as shown in Table 6.2.

The values shown in these tables reflect weighted average values representing an expected liability for the average case filed or resolved in a given year. To calculate the total liability for the Fund, we use the sampling weights to aggregate the predicted and actual liability values to a total expected liability. Table 6.4 shows the results of this calculation.

Table 6.4. Summary Table: Total Expected Fund Liabilities on Existing Caseload

1	Paid and outstanding aggregate liability on cases resolved between 2010 and May 2023	$2,492,407,301
2	Projected aggregate liability on unresolved cases pending as of May 2023	$5,454,644,236
3	**Total paid and outstanding liability of the Fund**	**$7,947,051,537**

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 1,047 cases. Sampling weights used to extrapolate estimated liabilities to the full population of SIBTF cases between 2010 and 2022. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. All totals adjusted to 2023 dollars after discounting. Future COLAs for LP and PTD benefits assumed to be 3.9 percent beginning in 2025. Note that the paid and incurred amount on resolved cases shown in row 1 includes $18 million for copy payments which are not allocated to individual cases across years due to data limitations.

As of the time of our data collection, there were 12,366 cases with a resolution occurring between 2010 and 2022 (nearly half of which were dismissed). We estimate the total present discounted lifetime liability of these resolved cases is approximately $2.5 billion (in real 2023 dollars). This value includes the amount paid to date on these cases as well as the outstanding balance. We estimate the total lifetime liability of the 14,681 unresolved cases (approximately 54 percent of the population) to be approximately $5.45 billion, yielding a total combined liability of approximately $7.9 billion.

Sensitivity Analysis

As we discuss in detail in Appendix B, estimating total liability requires a number of assumptions, and there is uncertainty inherent in the actual value even if all assumptions underlying the liability calculation are correct. Most notably, we do not know how long workers will live, and we cannot perfectly predict the outcome of unresolved cases. We also made key assumptions about future COLAs and the discount rate applied to future benefits. We ran several sensitivity analyses to test the robustness of our estimates to changes in these assumptions, as shown in Appendix B.

First, life expectancy is a key factor in total liability. Research has shown that workers with severe workplace injuries have reduced survival compared with similar individuals in the general population. Both Boden et al. and Martin et al. find evidence that workers with lost time injuries, and particularly those with permanent disabilities, have higher mortality rates, with estimates from these two studies implying that a workplace injury reduces life expectancy by somewhere between 4 and 17 percent.[61] To assess sensitivity to our life expectancy estimates, we reduce our

[61] Leslie I. Boden, Paul K. O'Leary, Katie M. Appelbaum, and Yorghos Tripodis, "Impact of Non-Fatal Workplace Injuries and Illnesses on Mortality," *American Journal of Industrial Medicine*, Vol. 59, 2016; Christopher J. Martin, ChuanFang Jin, Stephen J. Bertke, James H. Yiin, and Lynne E. Pinkerton, "Increased Overall and Cause-Specific Mortality Associated with Disability Among Workers' Compensation Claimants with Low Back Injuries," *American Journal of Industrial Medicine*, Vol. 63, No. 3, 2020.

estimates of life expectancy by the upper value in that range (17 percent). As shown in Table B.8, this change in life expectancy reduces the total expected liability of the Fund by approximately 20 percent (to $6.4 billion).

Second, the discount rate that should be applied to future income may be open to debate. Changing the discount rate to 3.9 percent (to equal the COLA) reduces the total liability by a smaller amount (7 percent, for an estimated total liability of $7.4 billion). The relatively small change is due to the fact that the baseline discount rate of 3 percent is close to the expected COLA of 3.9 percent. Moving in the other direction of assuming no discount rate instead increases liabilities by 32 percent (to $10.4 billion).

Third, the worker's wage is an important factor for determining benefits, but wage data was missing for 30 percent of our abstracted sample. We accordingly tested sensitivity to changing the imputed value for the wage from the median wage in the 2016 permanent partial disability benefit recipient population to the mean wage in the permanent partial disability benefit recipient population. This change increases total liabilities by approximately 6 percent. Across all of these changes, however, the predominant patterns remain the same as discussed above: There is no upward trend in benefits within any given type of resolution type over time. Therefore, the growth in average liabilities is still driven by shifts between resolution types over time. Across all our sensitivity analyses, we obtain a range for total aggregated liabilities of $6.4 to $10.5 billion. Our baseline estimate of $7.9 billion falls in the middle of this range. For some sense of comparison, the California workers' compensation system paid approximately $12.4 billion in total benefits in 2021.[62]

Discussion

This chapter presents estimates of the total lifetime liability of SIBTF cases that were in the system between 2010 and 2022. Our analysis revealed several key trends. First, the average expected liability for cases that have been resolved has grown over time, particularly for cases resolved in 2020 or later. Second, the average liability for various types of resolutions has remained relatively stable over the analysis period. Therefore, the increase in average liability for resolved cases over time is likely driven by shifts in the type of the resolution and the final combined rating, rather than by increases in the expected liability of any given type of resolution. The aggregated liability of resolved cases has also grown precipitously since 2020 due to an increase in resolutions and the shifts in resolution type described above.

Another key point is that over half of the cases in the analytic sample were unresolved as of the time of our data collection and analysis. Our baseline model predicts that approximately 91 percent of these cases will resolve with payments of some type. We estimate these unresolved

[62] Tyler Q. Welch, Griffin T. Murphy, Jennifer Wolf, and Michael Manley, *Workers' Compensation: Benefits, Costs, and Coverage (2021 Data)*, National Academy of Social Insurance, 2024.

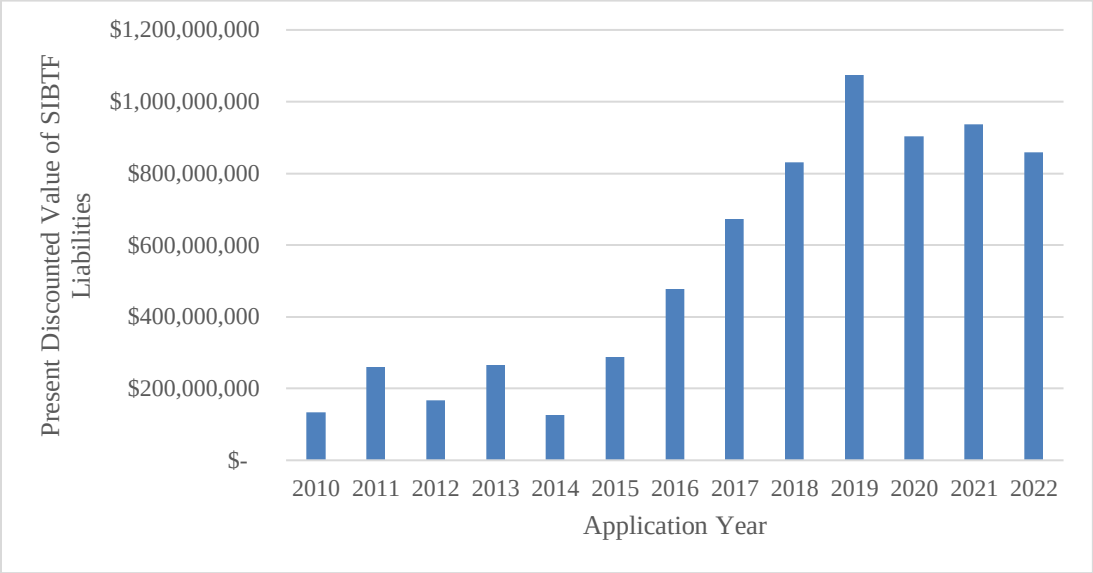
cases comprise approximately two-thirds of the total estimated liability of the Fund as of the end of 2022 (at approximately $5.3 billion). The unresolved cases represent a higher share of the caseload because we base the future predictions on recent trends of cases resolved after 2020. The dismissal rate is significantly lower during the last few years of the analysis period, and the likelihood of a resolution with 100-percent PTD benefits is higher (see Figure 4.7 and Table 4.5). The liabilities for resolved cases include cases from earlier years where a greater share were dismissed, and fewer cases reached a 100-percent rating. Assuming these trends are likely to continue for the unresolved cases, we therefore predict that the aggregate liability for cases resolved going forward will be higher than the aggregate liability has been in the past.

We reiterate that these calculations do not account for the fact that applications to SIBTF have continued since the end of our data collection. As our data collection focused on cases already filed, we did not have sufficient information to predict application flows into the Fund. As a result, the estimated liability on total cases should be viewed as a snapshot of the Fund as of the end of 2022.

For some context of the trend, Figure 6.4 separates the total $7.9 billion liability from Table 6.4 by application year. Total liabilities by application year fluctuated around $200 million from 2010 to 2015 before beginning a steady increase in 2016. Total expected liabilities exceed $800 million in each application year since 2018; the average PDV liability per application year over this time frame was $900 million. Note that the peak in 2019 is an outlier due to a combination of factors including a large number of Stipulations resolved in that year, a slight drop in applications during 2020, and sampling variance in our analysis sample; we believe the average after 2018 is more indicative of a future trend.

A conservative estimate would be to assume that liabilities for applications in future years would fall in the range of this average going forward. Because applications have been increasing steadily and it is reasonable to expect that applications will continue to increase in the near future, this still likely understates the total liability of the Fund on an ongoing basis.

Figure 6.4. Total Expected PDV Liabilities for Resolved and Unresolved Cases, by Application Year



SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 1,047 cases. Sampling weights used to extrapolate estimated liabilities to the full population of SIBTF cases between 2010 and 2022. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. Future COLAs for LP and PTD benefits assumed to be 3.9 percent beginning in 2025.

It is also important to remember that some portion of the liability of resolved cases has already been paid. From 2010 through May 2023, a total of $1.1 billion in benefits and non-benefit payments was paid on cases in our study. Subtracting this amount from the total liability means that there is an estimated $6.8 billion of the liability on cases in our study period that is still outstanding.

Chapter 7. Discussion and Conclusion

California's SIBTF, once a relatively small program intended to serve a small group of severely disabled workers, has grown significantly over the past decade, in terms of the number of applicants to the program, current annual expenditures, the average liability per case, and future liabilities. To better understand the factors driving these trends and the policy implications, DIR contracted with RAND to collect systematic data on cases in the system, and to provide a detailed analysis of these trends.

Over the course of this study, RAND built a dataset of SIBTF cases filed and adjudicated between 2010 and 2022. We integrated system-wide information stored across various parts of EAMS and enhanced this base with information collected through a robust eyes-on abstraction of data from case documents for a representative sample of all SIBTF cases. The resulting database offers many important insights into the SIBTF program and the Fund. Between 2010 and 2022, yearly applications to the Fund nearly tripled, from an average of 850 per year between 2010 and 2015 to an average of 2,400 per year between 2020 and 2022. The number of SIBTF applications filed has far outpaced the number of cases resolved by a Stipulations, F&A, C&R, or Dismissal or other closure, resulting in a large and growing backlog of pending cases. At the start of 2023, over 15,000 SIBTF cases were pending. Due to a variety of factors including administrative hurdles and early filing of SIBTF applications, it takes an average of 5 years for a case to advance from application to resolution, and examiner staffing levels have only recently been increased to address the complex review of cases.

There have been several other significant changes and trends in recent years. First, we see an increase in the share of applicants alleging certain types of common chronic conditions as their PPDs after 2016. The total number of PPDs alleged on the SIBTF application also increased after 2016, from 2.7 per case on 2010–2015 applications to 4.2 per case on 2016–2019 applications. And second, the 2020 *Todd* ruling was followed by dramatic changes in PD ratings and outcomes among cases that were pending at this time. Compared with ratings on cases resolved in 2016–2019, the proportion of resolutions in which the worker had a combined PD rating of 100 percent increased by 32 percentage points after 2020. This trend suggests that it became far easier for applicants to reach a 100-percent rating after *Todd*. It is even easier to reach a 100-percent rating after *Todd* when additively combining several conditions, and it has been much more common for applicants to allege multiple conditions as PPDs in recent years. These trends are thus intertwined and together contribute to the significant increases in recent years in the average cost per case for resolutions by Stipulations or F&A.

Payments have increased commensurately with the increased activity in the Fund, both benefit payments to beneficiaries and non-benefit payments to vendors. Yearly payments from the Fund have grown even faster, from an average of $26 million per year between 2010 and

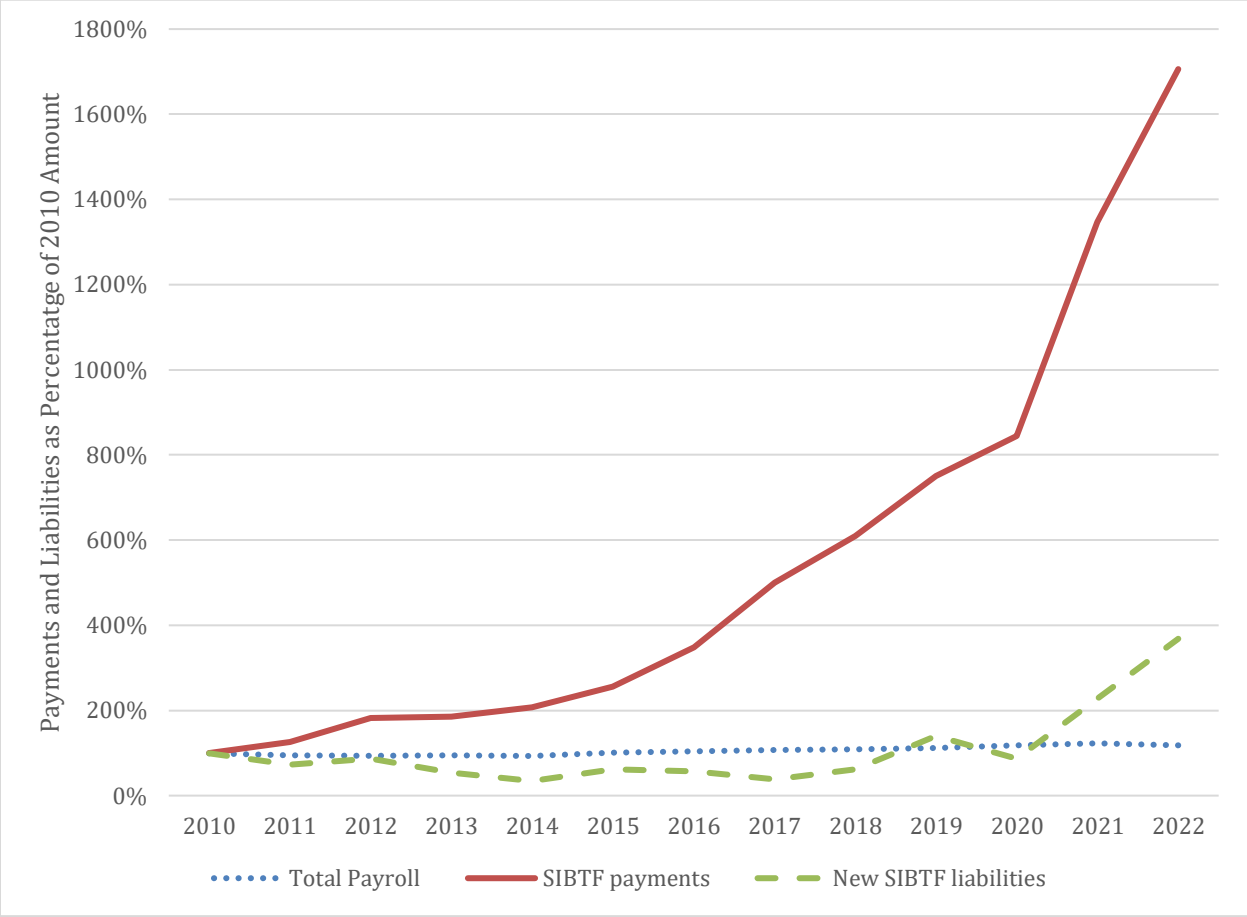
2015 to an average of $164 million per year between 2020 and 2022, comprising $110 million per year in benefit payments to SIBTF applicants and $54 million per year in non-benefit payments to attorneys, medical-legal examiners, and other vendors such as copy services. We estimate that the total liability of the SIBTF associated with benefit payments and attorney fees for cases in our study population is $7.9 billion. Most of this liability ($5.4 billion) was associated with the projected outcomes of the 15,000 pending cases, as opposed to the 6,095 cases that were resolved with benefits between 2010 and 2022. Liability likely will increase as applications continue to flow into the Fund.

In this chapter we compare recent trends in the SIBTF with the California workers' compensation system as a whole and to subsequent injury funds in other states. We then discuss how the SIBTF program fits into the broader context of California's workers' compensation system and outline some of the policy issues, implications, and considerations raised by these findings.

Context for Growth in the SIBTF Payments and Liabilities

We documented rapid growth in SIBTF applications, resolutions with benefits, benefit and non-benefit payments, and liabilities in California. A comparison of SIBTF applications with the number of new workers' compensation claims filed was presented in Chapter 4. To provide a benchmark for growth in payments and liabilities, we collected data on the amount of workers' compensation–covered payroll in California. We use covered payroll as a benchmark because it reflects the overall working population who could receive a workers' compensation award. Figure 7.1 plots covered payroll against the amount of payments and new liabilities incurred in each year from 2010 to 2022, after inflating each to real 2023 dollars and normalizing by the 2010 values. Compared with 2010 values, total fund payments grew more than 16-fold, and new yearly liabilities more than tripled, while the amount of covered payroll grew by 18 percent. In other words, SIBTF applications have grown much more rapidly than the working population in California.

Figure 7.1. Cumulative Growth of Covered Payroll, SIBTF Payments, and SIBTF Liabilities on Resolved Cases, 2010–2022



SOURCES: Covered payroll taken from DIR assessment methodology memos for FY 2011 through FY 2023.
NOTE: FY payroll is assigned to calendar year of FY start (e.g., FY 2010–2011 assigned to 2010) for purposes of figure. Dollar amounts inflated to real 2023 dollars using SAWW before calculating growth rates.

Comparison with SIBTF Payments in Other States

We can provide further context by comparing recent trends in the California SIBTF with trends in benefit payments made by other states' subsequent injury benefit funds. We examined data reported by the National Academy of Social Insurance (NASI), which provides the only nationwide data on SIBTF benefit payments.

As of 2020, 29 states had active subsequent injury fund benefits similar to California's SIBTF program. Nineteen of these states provided data to NASI. From 2016 to 2020, five of these 19 states saw an increase in fund benefits paid, while 14 states saw a decrease. Of the five states that increased their fund benefits paid, California experienced the largest increase, at 136 percent. The next highest increase was Wisconsin, at 73 percent. New Jersey had the largest overall fund benefit payments in 2020, with $196,036,455, though with very little growth since

2016 (Table 7.1). While other states have also seen growth in their subsequent injury benefit fund payments in recent years, the growth in the California SIBTF is the largest in the nation during this period.

Table 7.1. States with an Increase in Subsequent Injury Fund Benefits Paid Between 2016 and 2020

State	2016	2020	% Increase
California	$42,003,362	$99,211,751	136%
Wisconsin	$533,681	$923,699	73%
Indiana	$6,476,101	$7,109,020	10%
New Jersey	$189,400,000	$196,036,455	4%
Oklahoma	$52,095,816	$52,417,828	1%

SOURCE: Griffin Murphy, *Workers' Compensation: Benefits, Costs, and Coverage: Sources, Methods, and State Summaries*, National Academy of Social Insurance, November 2022, table A.5.
NOTE: Dollar amounts are nominal, not real.

Forty-seven states and the District of Columbia have enacted at some time a subsequent injury benefit fund statute, similar to California's SIBTF.[63] Between 1992 and 2007, however, 18 states and the District of Columbia have either repealed their fund or allowed it to sunset.[64] Since subsequent injury funds were originally established to encourage hiring of employees with disabilities, states began repealing their subsequent injury funds after the Americans with Disabilities Act (ADA) was passed in 1990, which prohibits discrimination in hiring on the basis of disability. Alabama, Maine, and Minnesota were the first to repeal their statutes, in 1991–1992. More recently, states have also cited a lack of evidence that their subsequent injury funds promoted hiring of people with disabilities, as well as the significant financial liabilities of their subsequent injury funds, as the reasons for repealing these funds.[65]

[63] Rhett Buchmiller, "Second Injury Funds Nationally and in Missouri – Liability, Functionality, and Viability in Modern Times," *Missouri Law Review*, Vol. 84, No. 3, 2019, p. 860, n. 80, and app. A. Oregon, Wyoming, and Vermont have never had an active subsequent injury fund.

[64] David Tobenkin, "Don't Overlook Second-Injury Funds: Special State Funds for Workers with Pre-Existing Conditions Can Help Defray Long-Term Costs for Workers' Compensation," *HR Magazine*, July 2009. These states are Alabama, Arkansas, Colorado, Connecticut, Florida, Georgia, Kansas, Kentucky, Maine, Minnesota, Nebraska, New Mexico, New York, Rhode Island, South Carolina, South Dakota, Utah, and West Virginia. Oklahoma repealed its statute but subsequently reinstated it in 2005.

[65] See, for example, Legislative Audit Council, *A Review of the South Carolina Second Injury Fund*, March 2007 (finding "no evidence that the Second Injury Fund has an effect on promoting the hiring and retention of the disabled"); Zachary D. Schurin, "Monkey-Business: Connecticut's Six Billion Dollar Gorilla and the Insufficiency of the Emergence of the ADA as Justification for the Elimination of Second Injury Funds," *Connecticut Public Interest Law Journal*, Vol. 7, No. 1, 2007 (finding Connecticut's SIBTF funding reached an estimated $6 billion of liability); and Martin M. Simons, *Analysis of Liabilities of the Georgia Subsequent Injury Trust Fund*, Subsequent Injury Trust Fund, 2005 (finding that the unpaid reimbursement liabilities of the Georgia Subsequent Injury Trust Fund exceeded $1 billion).

Eleven states limit the liability for their subsequent injury fund by requiring that the pre-existing disability be on a specific list of disabilities.[66] Some of these states, including Indiana, Iowa, Michigan, Mississippi, and Pennsylvania, significantly limit their liability by only allowing subsequent injury compensation if the pre-existing injury is the loss of use of a hand, arm, foot, leg, or eye.[67] Other states, such as Arizona and Ohio, specify a more lengthy list of potential pre-existing disabilities, including diabetes, cardiac disease, epilepsy, amputation, and Parkinson's disease, among others.[68] Some states have limited their subsequent injury liability through other means. For instance, in 2009 Washington began assessing significant additional experience-rated premiums against self-insured employers who access its fund,[69] and subsequently saw the use of its subsequent injury fund decline significantly.[70]

SIBTF and the California Workers' Compensation System

California's SIBTF was established in 1945 and has not had any major statutory changes since 1959. Disability rating, the broader workers' compensation system, and the labor market have changed considerably over the past 65 years, and it is worth assessing how SIBTF fits with the rest of the California system today.

Does SIBTF Serve Its Original Objectives?

Since the SIBTF began, the benefit structure of the program has remained largely unchanged, meaning the Fund is still structured to protect employers from bearing the additional cost of work-related disabilities that are exacerbated by PPDs. Yet the increasing aggregate cost of the Fund has increased assessments on employers, meaning that even though individual employers are not bearing the full cost of their employee's pre-existing disabilities, the overall burden on all employers has increased. Relatedly, the original objective also was intended to disincentivize hiring discrimination. The rationale was that employers would be less inclined to hire workers with disabilities if they could later be held liable for a workers' compensation claim that was

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[66] Buchmiller, 2019, p. 855. These states are Arizona, Florida, Illinois, Indiana, Iowa, Kansas, Michigan, Mississippi, Ohio, Pennsylvania, and Virginia. The 2020 compensation for these states in 2020 averaged $4.1 million versus an average of $29.7 million for the other states with SIBTF funds. See Murphy (2022), table A.5. Note the data reported to NASI may be incomplete, and that these numbers are not normalized for the size of the state.

[67] Ind. Code Ann. § 22-3-3-13 (Indiana); Mich. Comp. Laws Ann. § 418.521 (Michigan); Miss. Code Ann. § 71-373 (Mississippi); Iowa Code § 85.64 (Iowa); 77 Pa. Stat. and Cons. Stat. Ann. § 516 (Pennsylvania).

[68] Ariz. Rev. Stat. Ann. § 23-1065 (Arizona); Ohio Rev. Code Ann. § 4123.343 (Ohio).

[69] RCW 51.44.040, July 1, 2009.

[70] Payments declined from $148,000 in 2008 to $15,000 in 2015. See Christopher McLaren and David Maddy, *Workers' Compensation: Benefits, Costs, and Coverage: Sources, Methods, and State Summaries*, NASI, October 2017, table A.5; and Ishita Sengupta, Virginia Reno, and John F. Burton Jr., Study Panel on Workers' Compensation Data, and Terrell Brown, *Sources and Methods: A Companion to* Workers' Compensation: Benefits, Coverage, and Costs 2009, NASI, August 2011, p. 68.

exacerbated by a pre-existing condition. The extent to which the Fund is reducing hiring discrimination or disincentives to hire workers with pre-existing conditions, however, is less clear. Many of the alleged PPDs being claimed are chronic conditions so common it would be difficult for employers to avoid hiring workers with these conditions, if they even had knowledge of them at all. Furthermore, additional protections against hiring discrimination, such as the federal ADA and the California Fair Employment and Housing Act of 1959 (FEHA) have been enacted in the intervening years. These statutory schemes prohibit employers from discriminating on the basis of disability, potentially offering broader support outside of the workers' compensation system.

Another objective of the SIBTF is to protect the injured workers whose earnings losses may be compounded across multiple disabilities. At the time of the program's inception in 1945, few other safety nets for disabled workers existed; SSDI was not established until 1956. Employer-based retirement, disability retirement, and TD programs have similarly been expanded during this period. Thus, workers today certainly may have other benefits and supports available to them, creating some redundancies with an SIBTF.

Does Program Align with Rest of Workers' Compensation System?

There are several features of SIBTF which stand distinct from the broader workers' compensation system in the state. First of all, the *Todd* decision presents a significant departure from the standard method for rating disability resulting from multiple injuries or to multiple body parts, which uses the CVC. The justification used in the *Todd* ruling was that ratings could be added because the PPD and SII were distinct and separate injury events, whereas other assessments are taking into account multiple injuries or impairments occurring due to one event or at a single point in time. In practice, the fact that workers can reach a 100-percent rating and receive generous PTD benefits more easily through the additive method than through the combined values method means that workers who would be determined to be less severely disabled by other parts of the system (e.g., for their work injuries alone) will be receiving more generous benefits from SIBTF. In other words, a worker with multiple alleged PPDs who is evaluated for SIBTF will likely receive far more generous benefits than a worker with the same set of alleged disabilities if they all resulted directly from an industrial injury.

Due to the *Todd* decision, it is now far easier to receive a 100-percent rating for purposes of an SIBTF claim than for a "regular" workers' compensation case. This issue has significant policy implications. It creates incentives for both applicants *and* employers to structure SII settlements to reduce the attribution of injuries to the SII and instead claim them as PPDs—where they may be totaled up to receive a higher rating than they would have if they were evaluated as part of the SII. This incentive has potential gains for applicants, who could receive a larger total benefit through SIBTF, and for employers, who would have reduced workers' compensation costs due to lower SII liabilities. On the other hand, the cost of these increased benefits would be borne through increased assessments spread among all employers and

ultimately workers in the state (if, as economic research suggests, employers are able to pass on increases in workers' compensation cost to workers through lower wages).[71] The differing methods of combining injuries raises questions of fairness for workers evaluated under different parts of the system and has significant financial implications for both the individual worker and the system as a whole.

A second issue relates to the determination and assessment of PPDs. In the current system there is very little guidance on what counts as a PPD and how to determine the extent to which it was labor disabling at the time of the SII. This ambiguity relates all the way back to the original statutes, which provide no guidance on the issue. Although some early case law addressed the requirement that the PPDs must have been "actually labor disabling," it is apparent from the cases that this standard has been difficult to define and even harder to apply with any consistency and real effect in practice. Perhaps as a result, workers, attorneys, and QMEs currently have very broad interpretations of PPDs, and many conditions which are highly prevalent in the general population and may not always result in work disability are being counted as a PPD for purposes of granting SIBTF benefits.

Third, medical-legal reporting standards are different for SIBTF cases than for "regular" cases within the workers' compensation system. As discussed above, the SIBTF program is currently not subject to the rules of the QME system. This is the result of prior WCAB decisions which held that the statutes refer to employers and employees, and thus do not apply to cases involving the SIBTF. Because of this, applicant attorneys in SIBTF cases routinely select their own medical evaluators and frequently obtain several new medical evaluations targeted specifically at the SIBTF claim (as opposed to using the QME evaluations from the SII case). The high concentration of SIBTF payments for medical-legal reports among the top few vendors is consistent with the pattern of "doctor shopping" that led to the QME reforms that now apply for "regular" workers' compensation cases.

Are Benefits Important to Workers?

A full assessment of household income, household composition, current employment status, and other forms of financial support for SIBTF applicants was outside the scope of the study and of the available data. Without this information, we cannot fully answer the question of how important the SIBTF benefits are to workers, or whether benefits from SIBTF are redundant with other income sources available to these workers. By examining the characteristics of applicants to the Fund, we can see that many workers come from lower-wage occupations and are unlikely to have substantial wealth at the time of injury. Therefore, the benefits received from SIBTF likely replace a large share of pre-injury incomes and offer significant safety net to these workers. Some of the largest lifetime PTD benefits, however, indubitably provide a significant

[71] Jonathan Gruber and Alan B. Krueger, "The Incidence of Mandated Employer-Provided Insurance: Lessons from Workers' Compensation Insurance," in David Bradford, ed., *Tax Policy and the Economy*, MIT Press, 1991.

windfall to workers. However, the importance of smaller benefits provided via C&R or an LP relative to other income sources a worker may have is less clear.

At the same time, the average age at SIBTF application (57) is relatively late for many careers and is close to Social Security's normal retirement age. Most workers at this age in physical occupations tend to retire earlier, many at the early retirement age of 62. Relatively few cases (6 percent) in our sample reported income from retirement accounts at the time they applied, though a larger share (38 percent) were concurrently receiving SSDI. In order to fully understand the importance of the benefits to workers, the analysis would need more information about applicants' full retirement wealth, how it is affected by injury—including considering how the impact of injury and reduced earnings may affect future retirement incomes and Social Security Retirement benefits.

We do know that all workers in SIBTF have also received PD awards on their SII cases, and PD ratings have increased with the adoption of the FEC adjustment. It raises a question, therefore, as to whether the funds from SIBTF could be more equitably and efficiently managed through other changes or increases to PD to all or certain types of workers and reducing the size—either in terms of number of beneficiaries or value of benefits—of SIBTF. This question cannot be answered within the scope of this analysis, however, and we raise it as a topic to be addressed in future research.

Operational and Process Issues

The trends shown in this report document the impacts of growing backlog in SIBTF cases on the system as a whole. On average, it takes five years for an SIBTF case to move from application to resolution, though this average likely includes a period of inactivity for many cases, especially those which are filed prior to the SII resolution.

Other measures of the process burdens can be seen in the volume of additional medical-legal reports per case and the fact that significant dollars in the Fund are spent on payments to intermediate vendors: in total, 24 percent of program funds are spent on non-benefit payments to medical-legal providers and other vendors (principally copy services and VR providers). SIBTF applicants received a sizable number of medical-legal reports: 46 percent of SIBTF applicants between 2016 and 2019 received one or more medical-legal reports, and those receiving reports received 3.8 on average, meaning that there were 1.8 medical-legal reports conducted per SIBTF applicant as of the time of data collection. As discussed in Chapter 5, the complex medical history of SIBTF cases mean that these additional reports can be quite lengthy, resulting in unusually high medical-legal report fees.

It is not obvious what the "right" share of funds to be spent on administrative burden should be: as discussed, appropriate evaluation and assessment of eligibility for such benefits should require time and careful review. However, under the current system it does not appear that the time and funds spent on these intermediate outcomes have affected claim outcomes. As the volume of applications has increased and payments on these administrative tasks have increased,

the denial rate has fallen. It is possible the additional examiners that have been hired recently will change these trends, and it is too soon for the results to manifest in outcomes. We extracted data midway through 2023, and hiring of additional examiners only began in 2021.

Correlates of Potential Fraud or Abuse

The data available for this study are not sufficient to determine whether fraud or abuse has occurred in the SIBTF: conclusions about fraud and abuse would require more research. However, based on our examination of the trends in the data and prior knowledge of the system, we raise some points for consideration.

Because SIBTF does not provide medical treatment (which is distinct from medical evaluation), fraud in the nature of overtreatment or fraudulent treatment billing does not occur in the SIBTF program. Similarly, while illegally uninsured employers and insured employers who underreport payroll or misclassify employees are also shirking their SIBTF assessments, these fraudulent actions are not specific to the SIBTF. Instead, opportunities for fraud and abuse in the SIBTF are likely be in the area of applicants' exaggeration or fabrication of the alleged labor disabling PPDs, and in the referral arrangements, billing, and other behaviors of vendors, including medical evaluators and copy services.

One possible avenue for fraud and abuse in the SIBTF is the potential for exaggeration or fabrication of impairments experienced by SIBTF applicants, either from the SII or as attributed to the alleged PPDs. Our study was not scoped to examine the veracity of medical-legal or VR reports received by SIBTF applicants. As noted above, reforms to medical treatment in workers' compensation and the QME process adopted in recent decades (SB 899) include changes intended to reduce opportunities for "doctor shopping." Research on PD ratings in California between 1991 and 1997 found that medical evaluators chosen by applicants yielded PD ratings that were 6–8 percentage points higher than ratings for the same injured workers that were performed by neutral QMEs on the state DEU.[72] It is unclear whether the estimates from this prior research (which preceded adoption of the AMA Guides) can be directly applied to the current PD rating system. Nevertheless, given that medical evaluators in SIBTF are selected by applicants and are reviewing lengthy medical histories in relation to alleged PPDs, it is therefore possible that ratings may be substantially higher than would be assigned if the evaluations occurred through the QME system that applies for regular workers' compensation cases. And it is also likely that the exclusion of the SIBTF from these medical-legal reforms that apply throughout the rest of the California workers' compensation system contributes to some of the issues with the Fund.

We also note that there appears to be ample opportunity for abuse in the provision of medical-legal reports. Payments for medical-legal reports amounted to $191 million (in real 2023

[72] S. A. Seabury, T. R. Reville, and F. Neuhauser, "Physician Shopping in Workers' Compensation: Evidence from California," *Journal of Empirical Legal Studies*, Vol. 3, No. 1, 2006.

dollars) between 2010 and 2022, or about $1 of every $5 in total payments made by the SIBTF. The high volume of medical-legal reports and associated payments made by the SIBTF may create incentives for applicants' attorneys to order unnecessary medical-legal reports. Furthermore, because attorneys are paid higher fees when their clients receive larger benefits, they are already rewarded financially for choosing medical evaluators who deliver higher ratings, and it is plausible that medical evaluators who understand these incentives would compete for referrals by delivering favorable reports.

The scope for such potentially abusive practices in the regular workers' compensation system has been moderated by the QME process and by the independent bill review (IBR) and independent medical review (IMR) processes, though it is unclear whether the IBR and IMR processes apply to SIBTF. Furthermore, our data cannot tell us if medical evaluations involving thousands or tens of thousands of pages of records cross the line into abuse of the SIBTF, or simply reflect inefficiencies that are unavoidable under current law. We can, however, observe that the status quo—in which SIBTF pays the full cost of medical-legal and other vendor costs even on unsuccessful SIBTF applications—creates the opportunity for attorneys to provide favored medical-legal and copy vendors with attractive billing opportunities. Any effort to reduce excessive document review through IBR or IMR would add complexity and delay to the SIBTF process, generating transaction costs that might outweigh any savings.

Questions to Consider for Future Research

This study, of course, had its limitations in terms of the data available and the amount that could be reviewed within the time frame and budget of the contract. The findings suggest some priorities for future research if the opportunity is presented:

- *What will future flows into the program look like?* As discussed, our data collection efforts focused only on the current cases in which an application for SIBTF benefits had been filed. It is equally important to understand what the flow of applicants will look like going forward, though this question was out of scope for our current study. To understand future application flows, one would need information on the entire PD caseload and not just current SIBTF cases. The SIBTF database could be linked to other DIR systems such as the Workers' Compensation Information System (WCIS), which could be used to compare SIBTF applicants and other workers in the workers' compensation system. Data from the WCIS could then be used to predict future application flows into the system.
- *What is the importance of the SIBTF to beneficiaries?* Our data collection efforts provided some insight into this question by examining the extent to which recipients of SIBTF benefits had credits for other related disability or retirement benefits. A more complete answer to this question could be addressed again by linking SIBTF information to other sources of information about SIBTF applicants' earnings histories before and after injury and their other sources of income. For example, the study was not able to capture whether workers who have received SIBTF benefits have continued to work while also receiving SIBTF benefits. Information concerning worker incomes from employment and other sources would provide a more complete picture of income flows

for these workers in order to calculate replacement rates and understand whether SIBTF is filling a significant gap in household income if applicants are unable to work, or if SIBTF is redundant with other income sources, other sources of disability benefits, or employment.

- *What is the extent (if any) of fraud or abuse in the system?* The data collected in this study could be used by DIR or other analysts in the future to further explore patterns of referrals between attorneys, medical examiners, copy services, and other vendors. Regular referral networks are not necessarily indicative of fraud or abuse, however. Relatedly, future work could simulate how ratings and SIBTF could change if QME reforms were applicable to SIBTF, though any potential impacts of QME reforms on final combined ratings would likely be muted due to the *Todd* decision.
- *What are alternative methods of assessing the extent to which PPDs are labor disabling?* As discussed above, one option for reform to the program is to limit the scope of PPDs in some way. More work could be done to understand under what circumstances common chronic conditions result in work disability, and to understand the extent to which these factors are currently captured in QME evaluations and reflected in final ratings. This effort would likely require more research linking data on conditions and ratings to earnings records.

Policy Considerations

The California SIBTF has passed an inflection point and critical decisions will affect the path of the Fund going forward. If the status quo remains, it is very likely that applications to the fund—and future liabilities—will continue to grow at a rapid or increasing pace. Therefore, any decision will result in a trade-off in investments between investing now in additional efforts to narrow the scope of eligibility for the Fund and investing in the higher costs of benefit and vendor payments over decades to come. If the decision is made to invest in restructuring or narrowing the scope of the program, policymakers might consider a number of options. Many of these policy options would require action by the legislature.

Amend the SIBTF Statutes to Provide a More Specific Definition of What Constitutes a PPD for Purposes of SIBTF Eligibility

As described above, a growing number of SIBTF cases allege PPDs that are common health conditions and/or chronic diseases frequently found in an aging population. In many cases, the extent to which these conditions are "actually labor disabling" is unclear, and case law offers little guidance on how to apply this principle. The program would benefit from more specific eligibility requirements and a clear specification of the evidence required to establish that a PPD was labor disabling at the time of the SII. Statues could be revised to include only certain types of pre-existing disability, excluding common chronic conditions, and to specify the nature of evidence required to show that a condition was actually labor disabling at the time of the SII. Eleven of the 29 states with active subsequent injury funds limit the conditions that may qualify as a PPD to a list specified in the statute, offering precedent for adopting such an approach in

California. However, once a list is defined, there will likely be political pressure to expand the list to include additional conditions.

Amend the SIBTF Statutes to Address the Todd *Decision and Specify That Use of the Combined Values Chart Is Necessary in SIBTF Cases*

Returning to the method for combining impairments, and for combining PD ratings for the SII and the alleged PPDs, that was used prior to the *Todd* decision would also bring the SIBTF back into alignment with the way ratings for multiple impairments and multiple disabilities are determined in the rest of the system.

Extend Senate Bill 899 Medical Expert Reforms to SIBTF

Currently, the statutes requiring use of the QME process do not apply to the SIBTF program. The Labor Code could be modified to include SIBTF in the medical examiner reforms that were implemented in 2005 for other cases in the system. Narrowing the choice of medical experts and creating mandatory processes around medical evaluations for SIBTF cases, including potentially requiring that the same medical reports used for the SII be used for purposes of the SIBTF case, could reduce the potential for "doctor shopping" for evaluators who deliver higher ratings specifically targeted at SIBTF eligibility. As described above, recent SIBTF cases have had a growing number of new medical-legal reports obtained specifically for the SIBTF case. Applying the QME process to the SIBTF program could also moderate this growth, limiting the number of potentially unnecessary reports and duplication of or conflict with the QME reporting in the SII case.

Update the SIBTF Threshold Eligibility Criteria to Address the Future Earnings Capacity

Labor Code § 4751, which sets the eligibility requirements for SIBTF, has not changed since 1959. That section provides that when determining the threshold eligibility for an award, the disability of the worker is to be considered "alone" and without consideration of the age or occupation of the worker. The section is silent on the FEC adjustments that were first implemented in 2005 following SB 899, which increase standard AMA Guides ratings for all impairments by 40 percent. Decisions of the WCAB require that the FEC adjustments be used in SIBTF cases, which substantially increases the threshold PD ratings and increases the number of eligible applicants. Legislation excluding the FEC from consideration in SIBTF eligibility—or increasing the ratings threshold for the SII—would raise the bar for eligibility.

Adopt a Statute of Limitations for SIBTF Case Filings

A reasonable statute of limitations could be adopted requiring that SIBTF applications be filed within a defined number of years or months after the SII. Currently, cases may be filed many years after the SII, which not only contributes to the increase in case filings but also

complicates the accuracy of retrospective medical reporting and PD ratings, impeding accurate evaluation and efficient administration of the cases.

Increase Investments in Fund Administration

There is a substantial backlog of cases already in the system. Just through the time of data collection in May and June 2023, there were already almost 15,000 pending and unresolved cases. A policy change to be considered is whether California should devote substantially greater resources to increasing the size of the SIBTF Claims Unit and OD Legal, to ramp up the processing and resolution of pending SIBTF cases. Doing so might also require increases in resources for, and in the number of, WCALJs, who oversee the adjudication of SIBTF cases, including in trials when necessary. Ramping up the staffing to clear the backlog would require substantial additional resources up front. And in addition, as cases are resolved, primarily by Stipulations or F&As if no changes are made, the annual payments from the Fund will also significantly increase, which will require increases in the employer assessment.

Reduce Fund Liabilities by Limiting Benefits

Policymakers seeking to reduce SIBTF costs might also consider more drastic changes that would limit the value of benefits. These changes would bring SIBTF further away from alignment with the broader workers' compensation system, and the strengths and limitations of these options should be considered carefully.

One option would be to cap the benefits paid out by SIBTF on each case. PTD benefits and LP benefits could be limited in duration, age, or dollar amount. While there is not precedent for caps on PD or LP benefits in California, states such as Florida, Oklahoma, Kentucky, and Nevada have age and/or time limits on PD benefits.[73] Another option would be to reduce SIBTF benefits by the amount of labor earnings; there is currently no mechanism preventing workers from receiving SIBTF benefits while continuing to work. In a similar vein, retirement income (such as Social Security or retirement pensions) might be counted as credits against the SIBTF's liability even though these income sources are not designed to specifically target the worker's disability.

These options have drawbacks that should be considered by legislators. First, applying a uniform cap to all SIBTF benefits would necessarily result in the largest reductions for the workers with the largest benefits, including those receiving PTD benefits. It is true that some individuals with less severe injuries can receive large SIBTF benefits. But at least some of those

[73] These caps apply to workers' compensation cases in general. Florida and Kentucky no longer have active subsequent injury fund benefits. In the case of Nevada, the age limitation only applies to permanent partial disability, not permanent total disability. Each state has various other nuances in their age or time limitations. Fla. Stat. § 440.15 (2023); Ky. Rev. Stat. Ann. § 342.730 (2023); Okla. Stat. Tit. 85a, § 45(D) (2023); Nev. Rev. Stat. § 616c.490 (2022).

with large SIBTF benefits likely do, in fact, have severe work limitations and may experience economic hardship if SIBTF benefit payments were reduced. A benefit cap would also be a departure from the LP and PTD paid in the regular workers' compensation system.

Second, reducing SIBTF benefit payments on the basis of labor earnings would create strong work disincentives, an issue recognized in other social insurance programs such as SSDI and Social Security Retirement.[74] While such an approach could reduce payments from the SIBTF and create savings for employers, these gains would need to be weighed against negative impacts on the labor force and reductions in tax revenue (via lower income and payroll taxes). Such a change would also demand new administrative expenses to monitor the employment, earnings, or non-labor income of SIBTF recipients.

Furthermore, neither of these options would stem the growth in SIBTF applications or bring the program into better alignment with the original objectives. If large numbers of workers who are receiving PTD or LP benefits are capable of working at the same time, this indicates that there are problems with the approach taken in SIBTF to determine combined disability ratings and evaluate whether conditions are "actually labor disabling." Policy changes focused on the root causes of this situation—such as improving the accuracy of disability evaluation or clarifying the meaning of "actually labor disabling"—might address these concerns more effectively and with less potential for unintended consequences.

Consider Whether the SIBTF Program Remains Necessary in Light of Modern Policy and Anti-Disability Discrimination Statutes

Many states that originally adopted subsequent injury programs similar to California's SIBTF program have repealed and discontinued those programs over time. The programs originally offered many protections that have since been provided by other policies and programs that did not exist when the subsequent injury funds were established. California's SIBTF predates both the state's FEHA and the federal ADA, which directly prohibit disability discrimination in employment. Similarly, the SSDI program (first established in 1956) provides compensation for both occupational and non-occupational disabilities that was not available when most subsequent injury programs were established.

Some states have also cited the growing financial liability of their subsequent injury fund and a lack of evidence that it incentivized hiring disabled workers as additional reasons for repeal.[75]

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[74] Leora Friedberg, "The Labor Supply Effects of the Social Security Earnings Test," *Review of Economics and Statistics*, Vol. 82, No. 1, 2000; R. R. Weathers II and J. Hemmeter, "The Impact of Changing Financial Work Incentives on the Earnings of Social Security Disability Insurance (SSDI) Beneficiaries," *Journal of Policy Analysis and Management*, Vol. 30, No. 4, 2011.

[75] See Legislative Audit Council (2007) (finding "no evidence that the Second Injury Fund has an effect on promoting the hiring and retention of the disabled"); Schurin (2007) (finding Connecticut's SIBTF funding reached an estimated $6 billion dollars of liability); and Simons (2005) (finding that the unpaid reimbursement liabilities of the Georgia Subsequent Injury Trust Fund exceeded $1 billion).

Since the enactment of the ADA in 1990, 18 states and the District of Columbia policymakers have repealed or allowed their subsequent injury fund to sunset.[76] Policymakers should assess whether these more recent policy changes render California's SIBTF program redundant.

Conclusions

This study has described the growth and transformation of California's SIBTF in recent years, seeking to shed light on the factors that have contributed to rapid growth in its caseload, expenditures, and liabilities. Despite a transformation in the use of the program and the context in which it operates, the underlying statutes guiding the program's use and shaping case law have remained largely unchanged since the 1950s.

The SIBTF has reached a point where any policy action will have significant consequences for workers, employers and other stakeholders in the state. Leaving the system in its current form will require substantial increases in employer assessments in order to pay the billions of dollars in current and future SIBTF benefit liabilities, as well as increased investments in the administrative costs to evaluate cases and manage the program going forward. This investment will be financed through increased assessments collected from employers across the state. Reforms that would limit eligibility for SIBTF benefits or increase program stringency would require additional investments in administration and management costs but would reduce future liabilities of the program. Such reforms would also impose costs on potential applicants who would no longer be eligible for benefits as a result of these new changes. Policymakers and stakeholders face these hard choices and trade-offs knowing that any inaction is in effect a choice to maintain a status quo that has growing financial implications.

[76] Buchmiller, 2019, p. 860, n. 80, and app. A. Oregon, Wyoming, and Vermont have never had an active subsequent injury fund.

Appendix A. Additional Detail on Methods

Defining Case Resolution from EAMS Data

We developed an algorithm to classify each case's current (as of the time of data extraction in May 2023) resolution status into one of four categories:

1. lump sum settlement by C&R
2. ongoing benefits granted by Stipulations or F&A
3. dismissal or F&O
4. pending.

Benefits, including lump sum settlements and ongoing benefit payments, were ascertained primarily through SIBTF Claims Unit transactions data pulled from EAMS. As we discuss below, transactions are classified by payment category, and a number of the payment categories identify specific types of workers' compensation benefits and settlements, allowing us to identify resolutions that have one or more benefit payments made.

We classify cases as being resolved by C&R if we observe a payment with the payment category 20 in the payment transactions database.

We classify cases as being resolved by Stipulations or F&A if there is ever a payment for an LP, PTD, and/or permanent partial disability in the transactions database (i.e., payment categories 12, 17, and 11, respectively).

When payments of both types (C&R and Stipulations or F&A) were made on a case, we assigned the case based on the latest payment. In other words, if the C&R settlement payment came before LP payments begin, we assume the first payment was either an error or the case was reopened and had a different final resolution.

We were unable to rely on transactions data in all benefits cases because some cases with benefits have delayed starts. Transactions might not be paid immediately after the benefit is granted if, for instance, credits or ongoing SII payments fully offset the SIBTF's obligations.

To identify cases resolved with benefits in which payments have not yet started, we also examined a field in the SIBTF case named "Outcome" with categories that more meaningfully reflect the outcomes assigned by SIBTF examiners. If a case that was not classified using payments had an Outcome" of "Compromise and Release and Award," we classified the case as being resolved with a C&R. If a case that was not classified using payments had an "Outcome" containing the text "Stipulations" or "Findings and Award," we classified the case as being resolved by Stipulations or F&A.

If a case without any benefit payments had an EAMS case status listed as "Closed" or "Closed – Payments" or had a case outcome listed as "Findings and Order" or "Dismissal," we classified the case as dismissed. ("Closed – Payments" in EAMS is assigned to cases that are

closed without benefit payments if non-benefit payments were made (e.g., for copy services and QME reports).

All remaining cases that were not classified as C&R, Stipulations or F&A, or Dismissed were classified as Pending.

Conflicts Between EAMS and Case Documents

The Outcome variable is used consistently by the SIBTF Claims Unit for cases that were resolved in recent years but was not consistently used before 2018. Our approach to classification based on the EAMS data may miss cases in which the case was resolved before 2018, but the start of SIBTF payments was five years or more after the resolution, or in which there was incomplete data entry by the SIBTF Claims Unit or other case parties.

In our abstracted sample, we found a case-resolving document indicating a resolution with benefits in 10 out of 472 cases that were classified as unresolved or dismissed based on the EAMS data. Using the sampling weights, this would suggest that calculations using EAMS to assign case resolution may have undercounted the number of SIBTF cases resolved with benefits in the study population by 412, or about 5 percent of an estimated 6,826 total cases resolved with benefits when these cases are included. (For comparison, we observed 6,485 resolutions with benefits in our study population as of data collection in June 2023, 6,095 of which were made during the 2010–2022 study period). These cases are included in all weighted estimates based on the abstraction data and are included in analysis of transaction data (although they have no benefits or settlements yet paid, and so contribute only to non-benefit payments). Three of these cases (representing 87 cases in the study population) are excluded from the liability calculations because they were classified as dismissed based on EAMS data, while seven (representing 325 cases in the study population) are treated as unresolved in the liability calculation and were assigned a projected liability that may underestimate the true liability by including a non-zero probability of dismissal. In short, these cases may lead to underestimates of the volume of cases resolved with benefits but are unlikely to have meaningful effects on other findings of the study.

Assigning Resolution Year

To determine when a case was first resolved, we applied the algorithm described above to classify the current (as of data extraction) case resolution based on the data that would have been present in EAMS at the end of each calendar year from 2009 through 2022. The first year in which the case both existed in EAMS (i.e., after the filing date) and had a resolution other than pending was assigned as the year of case resolution.

In practice, it is possible for a case that was resolved to be reopened, for example if a successful appeal of a dismissal is filed. A case that is reopened after the SIBTF EAMS case is closed will be assigned a new status (“Reopen” upon opening and “Reclosed” if the case is then closed another time). At the time of our data pull, our study population of 27,047 cases had 213 cases in total with a status of “Reopen” (140 cases) and/or “Reclosed” (73 cases). The resolution

year assigned to these cases may be earlier than the year in which the case was resolved, but other measures (including those involving transactions or abstraction data) should be unaffected.

Table A.1 below summarizes all claims based on this classification of case resolution.

Table A.1. Overview of Case Resolution Status for SIBTF Cases, 2010–2022

Resolution Category	Number of Cases in Population
Unresolved	14,681
Not abandoned	12,436
Abandoned	2,245
Resolved with benefits	6,485
Resolved before 2020	3,626
Resolved in 2020 or later	2,859
Resolved without benefits	5,881
Total	**27,047**

SOURCE: RAND analysis of EAMS data.
NOTE: Excludes 2,701 cases that are open in EAMS but that had SIBTF benefits before 2010.

Excluding Cases Resolved Before Study Period

Our original data pull from EAMS included any case that was classified as open as of January 1, 2010. In practice, however, cases in EAMS may still be listed as open if payments are still being made but a resolution has already been determined. Based on the methodology described above to determine the year of case resolution, we exclude cases that were included in our data pull but in fact had benefits that resulted in final payments beginning prior to 2010. This excludes 2,701 SIBTF cases with benefits from the total cases pulled from EAMS. One of the remaining cases was excluded after we learned that it was a placeholder case number used for bulk payments of copy services invoices (see Chapter 5 for discussion) and did not reflect an actual SIBTF application, yielding a total sample size of 29,749 – 2,701 – 1 = 27,047.

Additional Details of Sampling SIBTF Case Documents

In order to obtain estimates that are valid for the entire population of SIBTF cases during the study period, it is necessary that all cases in the population have a non-zero probability of being sampled. However, we prioritized certain subgroups of cases to have a higher chance of being sampled (oversampled) because DIR and other policymakers have greater interest in these subgroups. Other subgroups that are of lower interest will be sampled at a lower rate (undersampled).

To develop our sampling design, we defined these mutually exclusive subgroups of cases, or *strata*. We grouped cases based on the following criteria:

1. Cases had to be resolved as of May 2023, when the EAMS data were extracted. Cases that were resolved with benefits were sampled at a higher rate than cases that were resolved without benefits,
2. Among cases with benefits, cases resolved with benefits after the *Todd* decision in June 2020 were sampled at a higher rate than cases resolved with benefits before *Todd*.
3. Among cases that are unresolved, we determined whether the case appears abandoned based on the criteria previously used by the SIBTF Claims Unit to administratively close cases in 2016–2018. Abandoned cases are defined as currently unresolved cases satisfying both the following criteria:
   - The date of SII resolution (as reported by a case closing event on the SII product in EAMS) was at least five years ago as of January 1, 2023.
   - The last event date on any EAMS event was at least five years ago as of January 1, 2023.
   - We sampled unresolved cases that are not abandoned at a higher rate than unresolved cases that appear abandoned.
4. Cases that are resolved with no benefits to the worker are sampled at the same rate as unresolved cases that are not abandoned.

We sampled unresolved cases that were not abandoned and cases closed without benefits at a "baseline rate." Cases with benefits, which are of greatest interest, were sampled at roughly two times the baseline rate among cases resolved before *Todd* and at four times the baseline rate among cases resolved after *Todd*. Finally, abandoned cases were undersampled at approximately 25 percent of the baseline rate. Table 2 provides an overview of this sampling approach.

Table A.1. Overview of Stratified Sampling Approach by for SIBTF Claims, 2010–2022

1	2	3	4
Stratum (based on case resolution)	**Number of Cases in Population**	**Number of Cases Collected**	**% Abstracted with Stratified Sample**
Unresolved	14,681	285	
Not abandoned	12,436	265	2.1%
Abandoned	2,245	20	0.9%
Resolved with benefits	6,485	575	
Resolved before 2020	4,123	275	6.7%
Resolved in 2020 or later	2,362	300	12.7%
Resolved without benefits	5,881	187	3.2%
Total	**27,047**	**1,047**	**3.9%**

SOURCE: RAND analysis of EAMS data.
NOTE: Excludes 2,701 cases that are open in EAMS, but that had SIBTF resolutions with benefits before 2010. "Sampling Rate" = proportion of cases in stratum sampled; "Stratified sample" = number of cases actually abstracted to date under stratified sampling; "% Abstracted with Stratified Sample" = proportion of cases in stratum abstracted.

Under uniform sampling, about 3 percent of all categories would have been sampled. However, Column 4 shows how our stratified sampling with the proposed rates yielded 12.7

percent of resolutions with benefits after the *Todd* decision and 6.7 percent of resolutions with benefits before the *Todd* decision.

Cases were chosen for sampling based on randomly selecting SIBTF case numbers within each category, based on the totals shown in Column 3. We used statistical software to randomly select the case numbers for abstraction. Because this sample was randomly drawn within strata, statistics calculated from these data using appropriate weights will be valid estimates for the population of cases from which the sample was drawn (i.e., cases in the SIBTF system between 2010 and 2022).

As a test of whether our stratified random sample yields weighted estimates that match population totals, we compare statistics calculated from EAMS data between the entire study population ("EAMS") with weighted estimates calculated from the abstraction data ("Abstracted Sample") in Table A.3. The weighted estimates closely match the population quantities from EAMS, both for quantities that were used to define the sample or for post-stratification, and for quantities that were not used in sampling or weighting. The good fit on the characteristics that we did not use in sampling or weighting provides substantial reassurance that sampling and weighting performed as intended and will deliver unbiased estimates of other population quantities.

Table A.3. Unweighted + Weighted Characteristics of Study Population and Abstracted Sample

Statistic	Study Population	Abstracted Sample
Used in sampling or post-stratification		
Mean year of SIBTF application	2014	2014
SIBTF resolved?	46%	45%
SIBTF resolved with C&R?	13%	13%
SIBTF resolved with Stip/F&A?	11%	11%
SIBTF resolved with F&O or Dismissed?	22%	21%
Not used in sampling		
Mean age at SII	50	50
Mean age at SIBTF open date	57	57
Mean year of injury	2007	2007
SII resolved?	73%	74%
SII resolved (first event) with C&R?	37%	37%
SII resolved (first event) with Stip/F&A?	31%	33%

SOURCE: RAND analysis of EAMS data.

Definitions of Other Variables Used in Analysis

During an abstraction for an individual case, information for the same variable would often be available on multiple documents. Examples of this include the SII and PPD ratings and certain

credits. However, this duplicate information would also often differ across the documents, with different documents listing conflicting values for the same variables. To ensure that the most reliable information is coded into the variables and to ensure consistency, the team developed a hierarchy from which to abstract information for certain variables. Per variable, the code would first look at the document at the top of the hierarchy and use the information abstracted there. For cases where the relevant information is missing from this top document, the code would then check the document next in the hierarchy to see if this information is present there. This would continue until all cases have information coded into the variable or until the hierarchy runs out of documents to check. Cases that did not find any information across the documents in the hierarchy would have the variable coded as missing.

We established hierarchies that differ depending on the variable. The hierarchy chosen depends on what the variable is representing and on which documents give the most complete and reliable information for that context. For example, in coding the SII rating, the hierarchy was to first use a case's resolving document, then a case's benefits worksheet, and then lastly the case workup sheet. However, in coding the alleged SII rating, the hierarchy for that variable would instead start with the applicant's submitted SIBTF application and then check the attorney demand letter because this variable represents the claimed SII rating rather than the rating that was verified and actually used in assessing a benefit amount. The following variables were also used in the analysis:

- **Case resolution**
  - *Data source*: Taken directly from an applicant's EAMS page. Represents the case resolution at the time of the data pull in May 2023. Occasionally, cases would have their resolution status updated or changed, and this variable would not reflect those changes that occurred after the pull date. Cases can either be coded as unresolved, resolved by C&R, resolved by Stipulations or F&A, or resolved by F&O or Dismissal.
  - *Available for*: all cases in EAMS data.
- **Case resolution year**
  - *Data source*: Taken directly from an applicant's EAMS page. Reflects the first year that the resolution status for a case was not shown as "open." We interpret this to mean that this is the year that the case was resolved.
  - *Available for*: all cases in EAMS data.
- **SII case resolution type and date**
  - *Data source*: We proxy these variables from the "orders" tab on an applicant's "ADJ" ("Adjudicated Case") page (regular workers' compensation cases) on EAMS. Occasionally, cases on EAMS would have their resolution type and date change, and we observe all of these changes. For our analysis, we use the last entered SII resolution type and date before the data was pulled in May 2023.
  - *Available for*: all cases in EAMS data.

- **Med-legal and VR reports (SIBTF Claims Unit transactions)**
  - *Data source*: We used the number of SIBTF payments for medical-legal and VR reports as a measure of the number of reports prepared, based on discussions with SIBTF Claims Unit staff.
  - *Available for*: all cases in study population.
- **DWC district office (ADJ filing location on EAMS)**
  - *Data source*: We proxied the city where the SIBTF application was filed by taking the SII filing location directly from an applicant's ADJ page on EAMS. This was decided because the information about location entered on applications was incomplete.
  - *Available for*: all cases in study population.
- **SII date of injury (INT ["Integrated Case"]) page on EAMS)**
  - *Data source*: Represents the date on which the SII occurred. This value is taken directly from the date of injury present on an applicant's INT page on EAMS.
  - *Available for*: all cases in study population.
- **Age at SII injury (INT page on EAMS)**
  - *Data source*: Represents the applicant's age in years at the time the SII occurred. It is calculated by subtracting the applicant's date of injury from the applicant's date of birth, and both of these variables are taken directly from an applicant's INT page on EAMS.
  - *Available for*: all cases in study population.
- **Alleged SII PD rating (abstraction)**
  - *Data source*: Represents the SII rating that the applicant claimed to have sustained when first applying for SIBTF benefits. Its coding hierarchy is to first take the rating present on the applicant's SIBTF application and then, if missing, to take the value on the case's attorney demand letter.
  - *Available for*: cases with a completed SIBTF application or attorney demand letter.
- **Determined SII PD rating (abstraction)**
  - *Data source*: Represents the SII rating that was officially used in calculating the SIBTF benefits. Its coding hierarchy is to first take the value present on the case's resolving documents, and then, if missing, to take the value on the case's benefits worksheet, and then, if still missing, to take the value from the case's workup sheet.
  - *Available for*: cases with a completed resolving document, benefit worksheet, or workup sheet.
- **Determined combined PD rating (abstraction)**
  - *Data source*: Represents the combined PPD and SII rating that was officially used in calculating the SIBTF benefits. Its coding hierarchy is the same as the SII rating, which is to first use the case's resolving document, then, if missing, to take

the value on the case's benefits worksheet, and then, if still missing, to take the value from the case's workup sheet.
  - *Available for*: cases with a completed resolving document, benefit worksheet, or workup sheet.

- **Alleged body part of injury for SII (abstraction)**
  - *Data source*: This is a set of indicator variables that represent the body parts or body classifications that the applicant claimed to have been injured in the SII. These injuries are taken from a description of the SII that the applicant entered on the SIBTF application. Those abstracting the application documents entered the text verbatim that the applicant listed on the application, with each injury separated by a semicolon. Then, our code separates these injuries using the semicolon as a divider. Indicator variables were then created for whether each injury contained certain words or phrases, such as "neck" or "back." Situations where one injury flagged multiple indicator variables (such as "HYPERTENSIVE HEART DISEASE" flagging both the indicator for heart issues and the indicator for hypertension) were examined individually and a judgment was made on how to correctly classify the injury.
  - *Available for*: cases with a completed SIBTF application.
- **Alleged body part of injury for PPD (abstraction)**
  - *Data source*: This is a set of indicator variables that represent the body parts or body classifications that the applicant claimed were impacted by their PPD. These injuries are taken from a description of the PPD that the applicant entered on the SIBTF application. The coding process for these variables is identical to the process for coding the SII injured body parts above.
  - *Available for*: cases with a completed SIBTF application.
- **Average weekly wage (abstraction)**
  - *Data source*: Represents the applicant's average weekly wage at the time the SII occurred. This is taken from abstraction data, and its coding hierarchy is to first take the reported wage from the SIBTF application, and then, if missing, to take the reported wage on the case's workup sheet.
  - *Available for*: cases with a completed SIBTF application or workup sheet.
- **Past credit amount (abstraction)**
  - *Data source*: Represents the amount of credit offsets the applicant had accumulated at the time of the determination of SIBTF benefits. This value is taken from abstraction data, and the hierarchy is to first take these credits from a case's benefits calculations worksheet. If that worksheet is missing, this variable is instead set to either the credits listed on a case's resolving document or the case's workup sheet, depending on which of these values is the largest.
  - *Available for*: cases with a completed benefits calculations worksheet, resolving document, or case workup sheet.

- **Credit receipt by source (abstraction)**
  - *Data source*: Represents the source document for the above past credit amount variable, and it is set to whether the past credit amount reflects the value present on benefits calculations worksheet, the resolving document, or the workup sheet.
  - *Available for*: all cases with a non-missing past credit amount.
- **P&S date (abstraction)**
  - *Data source*: Represents the date on which the worker's injury was deemed P&S and is set to the date indicated on the benefit letter, benefit calculator, resolving document, workup sheet, or application.
  - *Available for*: all cases with non-missing dates indicated.
- **SIBTF application filing date (EAMS)**
  - *Data source*: We proxied for the SIBTF application filing date using the date that the SIBTF case was opened in EAMS. This decision was informed by discussions with SIBTF Claims Unit staff who indicated that the time between SIBTF application receipt and the opening of the SIBTF case in EAMS should be limited, and that the year when the SIBTF case was opened in EAMS is an accurate reflection of the year when the application was filed.
  - *Available for*: all cases in study population.

Occupation Classification Algorithm

Another data element that we were tasked with collecting was each applicant's occupation. Descriptions of the SIBTF applicant's occupation might appear in the SIBTF application (where there is an occupation field), in case-resolving documents, or in the SIBTF Claims Unit case workup. EAMS also contains data on a worker's occupation, although this had serious limitations, as noted below. Our abstractors entered the occupation description as written in each of the documents named above if this information was available from the document. In a limited number of cases, occupation information was recorded in more than one document: we applied a hierarchy in these cases, using the occupation description from (in descending priority order): the SIBTF application, the case-resolving document (F&A, C&R form, or Stipulations form), the SIBTF Claims Unit case workup, and the occupation field in EAMS. Occupation information from the first source in the hierarchy for which the occupation was non-missing and was not listed as "N.A." ("Not Applicable") was used. Table A.4 reports how many cases in our abstracted sample had an occupation description from each source.

Table A.4. Sources of Occupation Descriptions

Source for Occupation Information	Unweighted Number of Cases	Unweighted Percentage of Cases
SIBTF application	226	21.59%
F&A	12	1.15%
C&R form	193	18.43%
Stipulations form	150	14.33%
SIBTF Claims Unit case workup	63	6.02%
EAMS	230	21.97%
No occupation information available	173	16.52%
Total	**1,047**	**100.00%**

SOURCE: RAND analysis of SIBTF case documents.

To assign the verbatim occupation descriptions to a usable set of structured occupation codes, we used the NIOCCS algorithm. (NIOSH staff provided us with a version of the algorithm that could be run on a secure RAND server without transmitting study data over the internet.)

NIOCCS has been widely used in occupational health research to assign SOC codes to free-text occupation and industry descriptions, such as those provided by survey respondents or appearing on vital records. NIOCCS is designed to allow probabilistic imputation: its output is a set of probabilities meant to estimate the likelihood that a trained human coder (such as a U.S. Census Bureau employee) would assign a given occupation description to each SOC code. Some probability is also assigned, in many cases, to an option ("Insufficient Information") indicating that the description is too vague to be assigned to any specific SOC code.

Some limitations to the occupation information available on SIBTF applicants should be noted. In about one in four cases, no usable occupation information was available in either SIBTF case documents or EAMS: 21 percent of cases had occupation information missing from case documents or coded as N.A. (which we interpreted as "Not Applicable"), while 4 percent of cases had occupation a non-missing occupation description that could not be assigned to an SOC code by the NIOCCS auto-coding algorithm (i.e., the highest-probability result was "Insufficient Information").

Finally, the EAMS occupation field, which was used to identify the occupation held for over a third of the SIBTF applicant population, identified the majority of workers in our sample simply as a "laborer," even in cases where the SIBTF application or other documents indicated a different occupation for the worker. It appears that some parties entering information into EAMS use "laborer" as a default response when they lack more accurate occupation information. Table 4.2 is thus likely to overstate the share of SIBTF applicants who were laborers. Even if we exclude cases where occupation was taken from EAMS, however, "Transportation and Material Moving Occupations" remains the most common major occupation group among SIBTF applicants.

Transaction Data and Counting Medical-Legal Reports

To create the transaction data used in the report, we merged transaction data that was found directly on EAMS to stub note data provided by DIR. The stub note data gave additional information about each of these individual transactions, including information on the payee category. About 12 percent of transactions had more than one stub note, so we used the following rules to select one stub note per transaction to merge to the transaction data:

- Keep any stub note with codes X102, X128, or X133 (these are mutually exclusive within transactions).
- If above rule was not applicable, keep the stub note with the largest amount.

After linking stub notes and transaction data, we first separated the benefit and non-benefit transactions. The benefit transactions were payments made as part of a successful applicant's benefits. These types of payments had their payment category code set to either 11, 12, or 17, and this coding was used to separate these payments.

The non-benefit transactions fell into one of four categories: medical-legal examinations, copy services, VR, or attorney fees. We applied the following rules to classify non-benefit transactions into one of these four categories:

- **Medical-legal examinations**: We classified a transaction as a payment for medical-legal examination if its payment category was set to "31 (Med/legal)" and either its stub note code was "X133 (Applicant Med-Legal Report)" or its stub code was "X127 (One-time payment)" and the comment on the transaction was "31 – Applicant's Lit/Med-Legal Expense."
- **Copy services:** We classified a transaction as a payment for copy services if its payment category was set to "31 (Med/legal)" and its stub code was "X128."
- **VR**: We classified a transaction as a payment for VR if its payment category was set to "34 (VR counselor/expert)" or its payment category was set to 31 and its stub code was "X127 (One-time payment)" and the comment on the transaction was listed as "6 – Voc Rehab Expense."
- **Attorney fees**: We classified a transaction as an attorney fee if its stub code was set to "X102 (Attorney Fee)" and it was not previously classified as a medical-legal examination, copy service, or VR expense.

VR and copy service transactions made before 2020 were coded as medical-legal payments and lacked sufficient detail to be classified accurately. After consultation with the SIBTF Claims Unit and analysis of the joint distribution of transaction types within payees, we used data from 2020 and later to determine the type of vendor that a payee was, and then used the payee type ascertained in post-2020 data to recode all payments received by payee prior to 2020. We inspected all payee names and verified using internet search that the top payees were correctly classified.

Appendix B. Liability Methodology

We calculated PDV liabilities for each resolved case in our abstracted sample. For cases that were resolved as a C&R, we took the reported total value of the C&R to reflect the full liability for the case. To calculate liabilities for Stipulations and F&As, we used abstracted data on key benefit inputs and used benefit schedules to calculate each type of benefits that the worker would be eligible for at each stage of the benefits. Using information on the worker's age and assumptions about life expectancy, we calculated the stream of benefits for the rest of the worker's life, and then discounted these values back to the point of case resolution. Finally, for cases that were unresolved at the time of our data collection, we developed a prediction algorithm to predict what the outcome of the case would be, and then calculated an expected value of total liability based on the calculated liabilities for resolved cases. We explain each of these steps below in detail.

All liability calculations rely on data from our abstracted sample where we were able to collect data on inputs critical to the calculation including ratings, and body parts for the SII and PPD. We use sampling weights to extrapolate total liabilities from our abstracted sample to the full population of SIBTF cases.

Calculating Liabilities for Resolved Stipulations

For cases that were resolved with Stipulations or F&A, workers may be eligible for several types of benefits at different phases depending on their ratings. Table B.1 summarizes the various benefit scenarios. Note that SIBTF liabilities are the SIBTF benefits net of any SII payments; the latter are covered by the employer through the regular workers' compensation system. Therefore, it is necessary to calculate the total SII payments as well as SIBTF payments to determine the net liability to the SIBTF.

We applied the abstracted data on SII ratings and year of injury to determine the permanent partial disability rate (and LP rate, if applicable) and number of weeks of permanent partial disability benefits as indicated in the benefit schedule. Using abstracted data on the combined rating for the SIBTF resolution, the worker's date of birth and the P&S date, we derived the SIBTF LP or PTD benefit rate as well as the total number of weeks of benefits that a worker would be expected to receive either of these benefits. Then, we calculated a present discounted sum for each benefit type. We discounted all payments back to the year of resolution. Because the worker is eligible or benefits dating back to the P&S date, this means that in many cases we

calculate an undiscounted retroactive payment due to the worker at the time of resolution for any benefits accrued from the P&S date to the resolution date.[77]

Table B.1. Liability Benefit Scenarios

Time Periods	Net SIBTF Payments
Scenario 1: Combined SIBTF rating 100% (PTD payments); SII rating range: 35–69% (permanent partial disability only)	
1. P&S to end of SII permanent partial disability	SIBTF PTD – SII permanent partial disability
2. End of SII permanent partial disability to death	SIBTF PTD
Scenario 2: Combined SIBTF rating 100% (PTD payments); SII rating range: 70–99% (permanent partial disability and LP)	
1. P&S to end of SII permanent partial disability	SIBTF PTD – SII permanent partial disability
2. End of SII permanent partial disability to death	SIBTF PTD – SII LP
Scenario 3: Combined SIBTF rating range 70–99%; (LP); SII rating range: 35–69% (permanent partial disability only)	
1. P&S to end of SII permanent partial disability	SIBTF permanent partial disability – SII permanent partial disability
2. End of SII permanent partial disability to end of SIBTF permanent partial disability	SIBTF permanent partial disability
3. End of SIBTF permanent partial disability to death	SIBTF LP
Scenario 4 Combined SIBTF rating range 70–99%; SII rating range 70–99% (permanent partial disability and LP)	
1. P&S to end of SII permanent partial disability	SIBTF permanent partial disability – SII permanent partial disability
2. End of SII permanent partial disability to end of SIBTF permanent partial disability	SIBTF permanent partial disability – SII LP
3. End of SIBTF permanent partial disability to death	Max(0, SIBTF LP – SII LP)

NOTE: "SIBTF rating" = combined rating on SII and PPD impairments.

For permanent partial disability payments, the formula for the PDV of benefit payments as of the resolution date is

$$PDV_{PPD} = \sum_{y=P}^{R} PPDrate + \sum_{y=R}^{PPDmax} \frac{PPDrate}{(1+\delta)^{y-\mathrm{R}}}$$

[77] As noted in Chapter 6, workers may be eligible for benefits prior to the P&S date: if the 104 weeks of TTD benefits have been exhausted and permanent disability is likely, a best estimate of PD benefits must be advanced before the P&S date is established. In our abstracted sample, there were more than 104 weeks between the SII date and P&S date in approximately 30 percent of cases. However, calendar time does not necessarily imply the weeks where TD was paid if workers receive benefits intermittently. Because of this ambiguity about the exact timing when 104 weeks of TTD benefits would be exhausted, our liability calculations begin with the P&S date in all cases. This means that we may slightly underestimate total liability in a minority of the cases where there are more than 104 weeks between the SII date of injury and the P&S date.

where P indicates the P&S year and R indicates the year of SIBTF resolution. Here, *PPDmax* is the final year of permanent partial disability payments as indicated by the set number of permanent partial disability weeks the worker is eligible for in the benefit schedule.

On injuries occurring in 2003 and later, Labor Code § 4659(c) provides for a COLA on PTD and LP benefits. For PTD benefits, the formula for the PDV of benefits as of the resolution date is as follows:

$$PDV_{PTD} = \sum_{y=P}^{R} PTDrate * (1 + COLA_y) + \sum_{y=R}^{LE} \frac{PTDrate * (1 + COLA_y)}{(1+\delta)^{y-\mathrm{R}}}$$

where $PTDrate$ is the benefit rate in the P&S year and LE indicates the final year of life expectancy given the worker's age at P&S date.

For LP benefits, the formula for the PDV of benefits is similar, but needs to be modified to account for the fact that the LP benefits do not begin until the end of permanent partial disability benefits, which occurs in the year $PPDmax$. In cases where permanent partial disability benefits are fully paid out before SIBTF resolution, the formula is:

$$PDV_{LP} = \sum_{y=PPDmax}^{R} LPrate * (1 + COLA_y) + \sum_{y=R}^{LE} \frac{LPrate * (1 + COLA_y)}{(1+\delta)^{y-\mathrm{R}}}$$

In cases where permanent partial disability benefits continue after the date of SIBTF resolution, the formula is:

$$PDV_{LP} = \sum_{y=PPDmax}^{LE} \frac{LPrate * (1 + COLA_y)}{(1+\delta)^{y-\mathrm{R}}}$$

where $LPrate$ is the benefit rate in the P&S year, P indicates the P&S year; R indicates the year of SIBTF resolution; and LE indicates the final year of life expectancy given the worker's age at P&S date.

COLA adjustments for PTD and LP benefits begin on January 1 after the start of benefit payments. In both cases, the COLA for the first year of benefit payments is zero: ($COLA_P = 0$ for PTD benefits and $COLA_y = 0$ for all years y such that $y \leq PPDmax$ for LP benefits).

These formulas are the same when calculating LP or permanent partial disability for either the SII or SIBTF payment. Because all benefit streams are eventually added together in our final liability calculation, we take the approach of calculating a PDV for each benefit stream and then adding or subtracting the various streams as appropriate. In the case where a worker receives an LP from both the SII and the SIBTF cases, depending on the ratings and the number of years of each payment, it is possible for the value of the LP for the SII to sometimes exceed the LP

benefit for the SIBTF. Therefore, when workers are eligible or both SII and SIBTF LP, we adjust the calculation as follows:

$$PDV_{LPNET} = \min\left(0, PDV_{LP\ SIBTF} - PDV_{LP\ SII}\right)$$

Workers may also have accrued credits due to other sources of disability compensation, as discussed in Chapter 5. Prior industrial awards other than the SII and ongoing payments for SSDI are the most common reasons for such credits, but some cases also had credits for compensation settlements for car crashes, other types of tort or personal injury compensation, employer-provided disability pensions, or private long-term disability insurance. All of these types of credits are subtracted from their total SIBTF liability.

As reported in Table 4.5, approximately 38 percent of resolved cases also had reported SSDI payments. For ongoing payments, we calculated the number of years from the date of resolution until the date when the worker would reach the full retirement age and calculated a PDV of SSDI payments. We used an SSDI-specific COLA assumption for this stream based on the average of prior Social Security Administration (SSA) COLA adjustments since 2005. We then subtracted both the lump sum value of any credits due to prior awards found in the abstraction process as well as the PDV for SSDI payments from the SIBTF liability as follows:

$$PDV_{Credit} = \sum LumpSumCredits + \sum_{y=R}^{maxDI} \frac{DIrate * (1 + DIcola)^{y-1}}{(1+\delta)^{y-\mathrm{R}}}$$

We then sum each of the PDV streams together for the four benefit scenarios as shown in Table B.2. Subscripts for the PDV terms indicate if each quantity reflects the SII, the PPD, or credits.

Table B.2. Liability Benefit Values

Scenario 1: Combined SIBTF rating 100% (PTD payments); SII rating range: 35-69% (permanent partial disability only)
$SIBTF\ PDV\ =\ PDV_{SIBTF\ PTD} - PDV_{SII\ PPD} - PDV_{Credit}$
Scenario 2: Combined SIBTF rating 100% (PTD payments); SII rating range: 70-79% (permanent partial disability and LP)
$SIBTF\ PDV\ =\ PDV_{SIBTF\ PTD} - PDV_{SII\ PPD} - PDV_{SII\ LP} - PDV_{Credit}$
Scenario 3: Combined SIBTF rating range 70-99% (LP); SII rating range: 35-69% (permanent partial disability only)
$SIBTF\ PDV\ =\ PDV_{SIBTF\ PPD} + PDV_{SIBTF\ LP} - PDV_{SII\ PPD} - PDV_{Credit}$
Scenario 4 Combined SIBTF rating range 70-99% (LP); SII rating range 70-79% (permanent partial disability and LP)
$SIBTF\ PDV\ =\ PDV_{SIBTF\ PPD} + PDV_{LP\ NET} - PDV_{SII\ PPD} - PDV_{Credit}$

Parameter Assumptions

We made several key assumptions in calculating these PDVs, as summarized in Table B.3.

Table B.3. Key Baseline Parameter Assumptions

Parameter	Assumption
Discount rate	3%
PTD and LP COLA after 2024	3.9%
DI COLA after 2024	2.6%
Life expectancy	SSA period life expectancy tables (2020)
Gender distribution	42% female

In our baseline analyses, we set the discount rate at 3 percent, which is a standard assumption in the literature. For LP and PTD benefits earned prior to 2024, we applied the history of COLAs as published by DIR and assumed a COLA of 3.9 percent (the average COLA from 2005 to 2024) for all future years. The COLA for DI is the average of all SSA COLAs since 2005.[78] We used the 2020 SSA period life expectancies for men and women.[79] Because we did not observe gender in any of the forms used in our abstraction data, we calculated total liabilities assuming all cases were male and all cases were female and then took an expected value using the gender distribution of permanent partial disability cases in 2016 as reported by RAND researchers (42-percent female).[80]

Imputation

In practice, we use data 274 for cases that were resolved via Stipulations or F&A in our abstracted sample when calculating liabilities. Out of this total, there were 120 cases in our abstraction data were missing at least one key input after data abstraction. Table B.4 below shows the counts of cases missing each input. In our baseline scenario, we imputed the missing inputs. If the pre-injury wage was missing, we assigned the median wage for workers who received permanent partial disability benefits for injuries in 2016 ($691).[81] If P&S date was missing, we randomly chose a year between the year of injury and the year of resolution for P&S date. For missing ratings the imputation had two main steps. First, if there was no final rating in the abstraction data but abstractors did find an alleged rating on either the application or attorney

[78] SSA, "Cost-of-Living Adjustment (COLA) Information for 2024," webpage, 2024.

[79] SSA, *The 2023 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*, 2023.

[80] Michael Dworsky, Stephanie Rennane, and Nicholas Broten, *Earnings Losses and Benefit Adequacy in California's Workers' Compensation System Estimates for 2005–2017 Injury Dates*, RAND Corporation, RR-A964-1, 2022.

[81] This figure is taken from Dworsky et al. (2022).

demand letter, we used this value for the final value. For those still missing, we randomly selected ratings to match the distribution of existing ratings. For example, approximately 75 percent of resolved Stipulations in our abstraction dataset had combined ratings of 100 percent. We set the imputed combined rating to be 100 percent for 75 percent of those cases missing a combined rating, and randomly selected a value between 70 and 99 for the remaining quarter. Finally, there is missing data related to credits. Among cases where abstractors found some evidence that there was a credit, two thirds did not have a reported value of the credit. For cases reporting that there was an SSDI credit but no corresponding monthly amount, we assign the median monthly reported SSDI monthly amount. For cases reported other non-SSDI credits, which are primarily applied in a lump sum at the resolution date, we assigned the mean lump sum credit value. In sensitivity checks discussed below, we modify these imputation assumptions.

Table B.4. Counts Missing Key Inputs for Liability Analysis

Key Input	Count Missing	% of Abstracted Stipulations
Year of injury	1	<0.01%
P&S year	17	6.2%
Average pre-injury weekly wage	83	30.3%
SII rating	21	7.7%
SIBTF rating	19	6.9%
SSDI monthly values	65	23.7%
Other credit values	39	14.2%

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Sample contains 274 cases resolved by Stipulations or F&A.

Additionally, there were nine C&R cases where the final value of the C&R was missing. We set the value for these missing cases to the mean of observed values in our sample.

Validity of PDV Liability for Abstracted Cases

There is relatively little information available with which to benchmark our estimates of liability. Per our discussion with SIBTF Claims Unit staff, examiners do generate a rough estimate of liability as part of their review process. Therefore, as a validity check on our estimates, we compare the distribution of our PDV liabilities for Stipulations with projected liabilities as reported on Case Workup forms that were reviewed in abstraction. There are some limitations to this comparison: first of all, case workup forms were not found for all cases in our abstracted sample. Only about 30 percent of abstracted cases had a case workup; among those, only 61 reported an estimated liability, and 20 reported an estimated liability net of credits. Second, the estimated liability as written on the case workup does not necessarily reflect the final liability in the case, and is based on DIR examiners' own assumptions, which sometimes differ from

assumptions used in our own liability calculations. Nevertheless, comparing our liability workups with the estimated liabilities provides another viewpoint on the validity of our estimates. To assess how close our liability estimates are to those reported on the case workup, we calculated a ratio of RAND PDV liability estimate to case workup liability estimate. A ratio of 1 would indicate that the two liability estimates are the same. Table B.5 shows the distribution of the reported liabilities both before and after credits are applied. In both cases, the median is close to 1, and although there are some outliers, the interquartile range is from 1.04 to 1.73 after adjusting for credits.

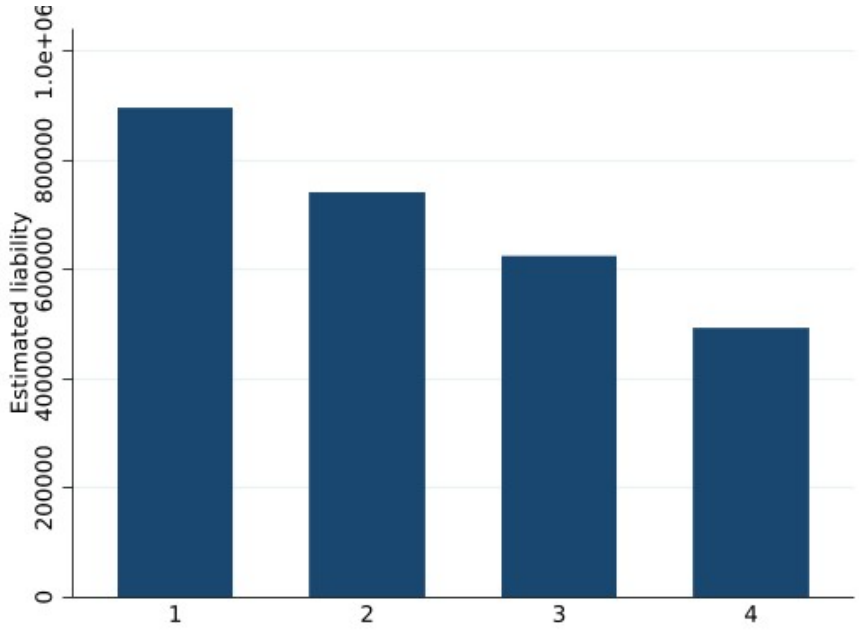
Table B.5. Distribution of Estimated Liability to Reported Liability on Case Workup Form

	25th Percentile	50th Percentile	75th Percentile	*N*
Liability	0.798	1.223	1.429	61
Liability less credits	1.049	1.269	1.725	20

SOURCE: Authors' calculations comparing RAND estimates of liability with estimates of liability reported on SIBTF Claims Unit case workup forms, where available.
NOTE: Estimates based on sample of 270 cases resolved by Stipulations or F&A.

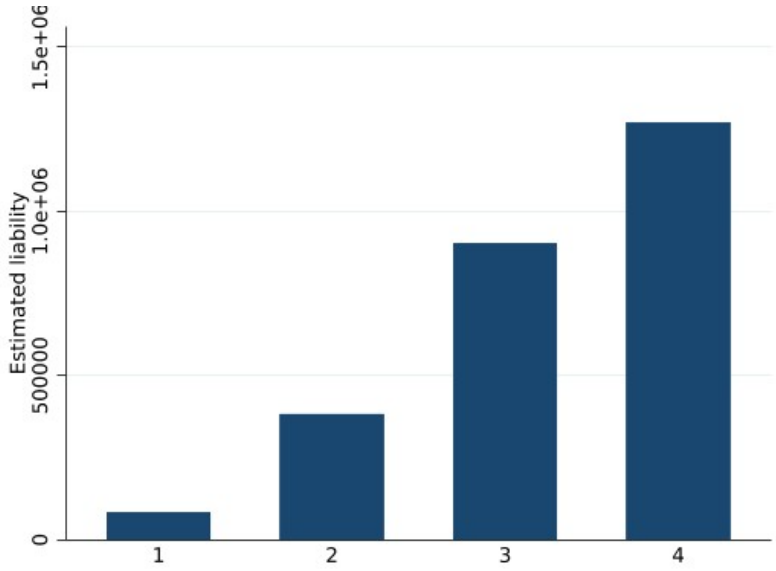
Finally, Figures B.1–B3 show patterns in our estimated liability by key parameters to ensure that liability patterns move as expected. First of all, liability decreases with age, which makes sense as older workers would have shorter life expectancies and thus fewer years to receive benefit payments. Liability is increasing with the pre-injury wage, which is also expected as both LP and PTD benefits are a function of the worker's wage. Finally, liabilities for cases with a 100 percent combined rating are nearly four times larger on average than cases with a rating less than 100 percent, reflecting the significantly larger value of a PTD benefit compared with an LP.

Figure B.1. Average Present Discounted Liability for Cases Resolved by Stipulations or F&A by Age Quartile



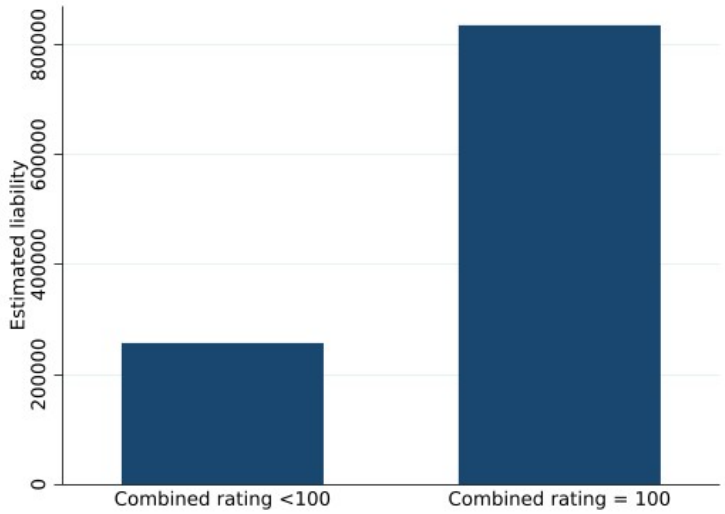
SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on 274 cases resolved via Stipulations or F&A. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. Future COLAs for LP and PTD benefits assumed to be 3.9 percent beginning in 2025. Averages calculated using sampling weights. Age quartiles are 20–52, 53–58, 59–63, and 64–100.

Figure B.2. Average Present Discounted Liability for Cases Resolved by Stipulations or F&A by Pre-Injury Wage Quartile



SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 274 cases resolved via Stipulations or F&A. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. Future COLAs for LP and PTD benefits assumed to be 3.9 percent beginning in 2025. All totals adjusted to real 2023 dollars after discounting. Averages calculated using sampling weights. Wage quartiles are $0–$435, $438–$733, $758–$1,260, above $1,260.

Figure B.3. Average Present Discounted Liability for Cases Resolved by Stipulations or F&A by Combined Rating Above or Below 100%



SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 274 cases resolved via Stipulations or F&A. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. Future COLAs for LP and PTD benefits assumed to be 3.9 percent beginning in 2025. All totals adjusted to real 2023 dollars after discounting. Averages calculated using sampling weights.

Incorporating Non-Benefit Payments

Because the method above predicts the total benefit value for a given case, it implicitly includes all attorney fees which are calculated as a percentage of the total benefits. However, it does not include the additional vendor payments discussed in Chapter 5, including payments on medical-legal reports and VR reports. For each resolved case, we additionally add the total amount of payments for medical-legal and VR reports to obtain the final total liability for the case. Due to the manner in which copy payments were collected in the administrative databases over time, we are unable to directly assign copy payments to individual cases, but account for the aggregated total of copy payments to date when calculating the aggregate liabilities for the entire Fund as shown in Table 6.4.

Predicting Outcomes for Unresolved Cases

To predict liabilities for unresolved SIBTF cases, we first used key inputs abstracted from case resolution documents to predict what the outcome of the case would be. As the statistics in the report show, one important factor in determining the final liability of the case is whether the case has a 100 percent combined rating or a combined rating less than 100 percent. Cases with C&Rs or Stipulations with less than 100-percent ratings have similar PDV liabilities, as shown in Table 6.2. Therefore, we modeled the outcome for unresolved cases as one of three possibilities:

(1) dismissal; (2) resolution at 100 percent combined rating; (3) resolution of C&R, F&A, or Stipulations with less than a 100-percent rating. We used a multinomial logistic regression to generate predicted probabilities for each of these three outcomes for unresolved cases.

Another key factor that affected the liability for resolved cases is the *Todd* decision, which, as described in our report, made it significantly more likely that a case would reach a 100-percent combined rating. All cases currently unresolved would be resolved in the post-*Todd* era, even if they were filed prior to the *Todd* decision. Therefore, we trained the prediction model on resolved cases occurring during or after 2020 to reflect the significant shift in the resolution process resulting from the *Todd* decision.

We used data on alleged pre-existing disabilities, total number of alleged body parts, occupation, filing location, and an indicator for whether the SIBTF application was filed in the last five years (e.g., since 2018) or earlier as predictors in our model. While ratings are a key factor affecting the likelihood of having a resolution with benefits and a 100-percent rating, the data on SII ratings was commonly not found in abstraction for unresolved cases. Among resolved cases, cases that are missing ratings are most likely to be dismissed, and therefore including ratings in the prediction model ends up being a strong predictor of whether or not a case is dismissed. However, in unresolved cases, there could be other reasons that ratings information is not available, particularly if the SII case has not yet resolved or the case was filed recently. Therefore, we do not believe that the association between missing ratings information in the resolved sample is the same in the unresolved sample, and we do not include ratings in the prediction model. Table B.6 shows the resulting relative risk ratios from the multinomial logit model. The relative risk ratios show the extent to which the covariate is associated with an increase or decrease in the relative risk of receiving resolution with a rating of 100 percent or below 100 percent relative to the base outcome of having the case dismissed. Having back problems as a pre-existing disability is strongly associated with a higher probability of the case receiving resolution with benefits as well as filing a case in Southern California or the Bay area. Listing hypertension as a pre-existing disability is associated with a lower probability of receiving a resolution with benefits.

Table B.6. Relative Risk Ratios from Prediction Model

	Rating at 100%	Rating at < 100%
Age at application	0.0326	0.0212
	(0.0313)	(0.0318)
Protective services occupation	0.0998	-0.365
	(0.850)	(0.858)
Total number of alleged body parts	0.101	0.0861
	(0.125)	(0.129)
Total number of alleged PPD body parts	1.382*	0.897
	(0.758)	(0.757)
Filed in Bay area	1.996**	2.416***
	(0.822)	(0.804)
Filed in Southern California	0.760	0.218
	(1.000)	(0.993)
Filed in past 5 years	0.0724	-0.0598
	(0.183)	(0.185)
Years since application was opened	–2.561	-0.529
	(2.349)	(2.465)
Constant	0.0326	0.0212
	(0.0313)	(0.0318)

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 336 cases that were resolved in 2020 or later. Relative risk ratios are relative to a base outcome of having the case dismissed. Robust standard errors in parentheses; *** p < 0.01, ** p < 0.05, * p < 0.1. Model estimated with sampling weights.

Table B.7 assesses the internal fit of the model by comparing the predicted probabilities from the model with the overall likelihood of each of the three outcomes for cases resolved during or after 2020. On average, the model accurately predicts the overall distribution of the three outcomes for resolved cases. It does predict a slightly higher likelihood of dismissal among unresolved cases than is observed in the dismissal rate among resolved cases. This appears to be driven by a share of older cases in the sample that are still unresolved. When examining the predicted probability of dismissal on unresolved cases by application year, this is driven by higher probabilities of dismissal in the earlier years in our sample. While not statistically significant, the relative risk ratios in the model shown above indicate a higher likelihood of resolution with benefits for cases filed in the past five years and a decreasing likelihood of resolution with benefits as the number of years since the application is filed increases. It is plausible that these older cases may eventually be dismissed even though the overall dismissal rate has trended down in recent years.

Table B.7. Average Predicted Probabilities in and out of Sample

Outcome	Actual post-2019 Distribution	Average Model-Predicted Probabilities in Training Sample	Average Model-Predicted Probabilities out of Sample
Dismissal	8.76%	8.77%	8.76%
Benefits rated at 100%	37.54%	37.68%	39.70%
Benefits rated at < 100%	53.70%	53.54%	51.54%

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 42 post-2019 resolutions in training sample and 276 unresolved cases out of sample.

Finally, we calculate the PDV expected value liability for unresolved cases as follows:

$$E[SIBTF\ PDV] = P_{dis} * 0 + P_{a100} * SIBTF\ PDV_{a100} + P_{lt100} * SIBTF\ PDV_{lt100}$$

Where P_{dis}, P_{a100} and P_{lt100} are the predicted probabilities of dismissal, benefits rated at 100 percent, benefits rated at less than 100 percent, respectively. $SIBTF\ PDV_{a100}$ and $SIBTF\ PDV_{lt100}$ are the mean PDV liability for Stipulations or F&As resolved after 2019 with ratings at 100 percent and less than 100 percent. Because Figure B.1 shows how age is such a strong predictor of total liability, we calculate average liabilities for 100 percent and less than 100 percent benefits separately above and below the median sample age of 57.

In addition to calculating liability in nominal terms, we also adjust liabilities from all resolution years to real 2023 dollars using the California SAWW.

Sensitivity Analyses

Finally, we conducted several sensitivity analyses where we varied assumption or treatment of the data. First, we considered an alternative assumption on life expectancy. Workers receiving SIBTF benefits all have permanent disabilities with high ratings meaning they should be significantly disabled. This in turn may mean that they could have shorter life expectancies than the average person their age that is reflected in the SSA life tables. Some prior research has found evidence of higher mortality rates for individuals with workplace injuries. Boden et al. compared the mortality hazard rate of workers in New Mexico with lost time injuries to those with medical only injuries and found evidence of elevated hazard rates for both men (1.21, CI 1.15–1.27) and women (1.24, CI 1.15–1.35).[82] In another study, Martin et al. found evidence of slightly higher overall mortality hazards among workers in West Virginia with permanently disabling injuries compared with the general population (1.07, CI 0.98–1.16).[83] In our sensitivity analysis we chose a higher value from this range and reduced the life expectancy values by a

[82] Boden et al., 2016.

[83] Martin et al., 2020.

factor of 1.2. As shown in Table B.8, this reduces total aggregate liabilities by approximately 20 percent.

We also ran two alternative discount rate assumptions: one where the discount rate is equal to the COLA rate, and one without discounting (but preserving the COLA increases). Increasing the discount rate to 3.9 percent reduces liabilities slightly by 7 percent, while removing discounting significantly increases liabilities by 32 percent. Because data on wages was missing for nearly 30 percent of our abstracted sample, we next varied the imputed value we used for the wage and took a higher value: the mean wage ($870) for workers who received permanent partial disability benefits for injuries in 2016 rather than the median ($691). This increases total aggregate liability by approximately 6 percent. In total across all our sensitivity analyses we obtain a range for total aggregated liabilities of $6.4–10.5 billion. Our baseline estimate of $7.9 billion falls in the middle of this range.

Table B.8. Total Estimated Aggregated Liability Under Alternative Assumptions

Scenario	Estimated Liability
Baseline estimates	
Total aggregate liability of cases resolved between 2010 and 2022	$2,492,407,301
Estimated aggregate liability on unresolved cases filed between 2010 and 2022	$5,454,644,236
Total incurred and projected liability of the Fund	**$7,947,051,537**
Reducing life expectancy by a factor of 1.2	
Total aggregate liability of cases resolved between 2010 and 2022	$1,988,455,704
Estimated aggregate liability on unresolved cases filed between 2010 and 2022	$4,377,801,886
Total incurred and projected liability of the Fund	**$6,366,257,590**
Changing discount rate to 3.9%	
Total aggregate liability of cases resolved between 2010 and 2022	$2,316,060,779
Estimated aggregate liability on unresolved cases filed between 2010 and 2022	$5,083,064,062
Total incurred and projected liability of the Fund	**$7,399,124,841**
Changing discount rate to 0%	
Total aggregate liability of cases resolved between 2010 and 2022	$3,324,064,402
Estimated aggregate liability on unresolved cases filed between 2010 and 2022	$7,201,383,454
Total incurred and projected liability of the Fund	**$10,525,447,856**
Increasing imputed wage	
Total aggregate liability of cases resolved between 2010 and 2022	$2,739,051,812
Estimated aggregate liability on unresolved cases filed between 2010 and 2022	$5,694,349,170
Total incurred and projected liability of the Fund	**$8,433,400,982**

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 1,047 cases. Sampling weights used to extrapolate estimated liabilities to the full population of SIBTF cases between 2010 and 2022. Calculations reflect present values discounted to the year of resolution. All totals adjusted to real 2023 dollars after discounting. Variations for sensitivity analyses indicated in panel headers.

Appendix C. Additional Results

Table C.1. SIBTF Case Characteristics by Year of Resolution for Resolved Cases, 2010–2022

Statistic	2010–2015	2016–2019	2020–2022	Total
Mean age at SII	49	51	53	50
Mean age at SIBTF open date	54	57	58	56
Mean year of injury	1997	2005	2012	2003
Mean year of SIBTF application	2003	2012	2018	2009
SII resolved by time of data collection?	33%	78%	98%	60%
SII resolved with C&R?	14%	31%	42%	25%
SII resolved with Stip/F&A?	17%	42%	51%	32%
SIBTF resolved?	100%	100%	100%	100%
SIBTF resolved with C&R?	18%	35%	46%	29%
SIBTF resolved with Stip/F&A?	12%	22%	48%	23%
SIBTF resolved with F&O or Dismissed?	70%	43%	7%	48%
Number of cases	6,243	3,053	3,070	12,354

SOURCE: RAND analysis of EAMS data.

Table C.2. SIBTF Applications by Office Location, 2010–2022

DWC Office	2009 or Earlier	2009 or Earlier (%)	2010–2015	2010–2015 (%)	2016–2019	2016–2019 (%)	2020–2022	2020–2022 (%)	Total All Years	Total All Years (%)
AHM	113	(2.4%)	225	(4.1%)	529	(6.9%)	456	(6.3%)	1,323	(5.3%)
ANA	133	(2.8%)	118	(2.1%)	252	(3.3%)	737	(10.2%)	1,240	(4.9%)
BAK	16	(0.3%)	17	(0.3%)	48	(0.6%)	60	(0.8%)	141	(0.6%)
EUR	20	(0.4%)	10	(0.2%)	77	(1.0%)	59	(0.8%)	166	(0.7%)
FRE	95	(2.0%)	44	(0.8%)	70	(0.9%)	110	(1.5%)	319	(1.3%)
LAO	150	(3.1%)	131	(2.4%)	166	(2.2%)	272	(3.8%)	719	(2.9%)
LBO	154	(3.2%)	137	(2.5%)	266	(3.5%)	213	(2.9%)	770	(3.1%)
MDR	313	(6.6%)	354	(6.4%)	429	(5.6%)	423	(5.9%)	1,519	(6.0%)
OAK	416	(8.7%)	524	(9.5%)	1,303	(17.0%)	897	(12.4%)	3,140	(12.5%)
OXN	188	(3.9%)	92	(1.7%)	49	(0.6%)	75	(1.0%)	404	(1.6%)
POM	75	(1.6%)	55	(1.0%)	231	(3.0%)	101	(1.4%)	462	(1.8%)
RDG	147	(3.1%)	69	(1.3%)	98	(1.3%)	109	(1.5%)	423	(1.7%)
RIV	66	(1.4%)	81	(1.5%)	147	(1.9%)	108	(1.5%)	402	(1.6%)
SAC	770	(16.2%)	532	(9.6%)	688	(9.0%)	506	(7.0%)	2,496	(9.9%)
SAL	109	(2.3%)	133	(2.4%)	209	(2.7%)	149	(2.1%)	600	(2.4%)
SBA	12	(0.3%)	31	(0.6%)	60	(0.8%)	55	(0.8%)	158	(0.6%)
SBR	143	(3.0%)	62	(1.1%)	159	(2.1%)	184	(2.5%)	548	(2.2%)
SDO	97	(2.0%)	141	(2.6%)	186	(2.4%)	181	(2.5%)	605	(2.4%)
SFO	217	(4.6%)	425	(7.7%)	718	(9.4%)	485	(6.7%)	1,845	(7.3%)
SJO	513	(10.8%)	1,088	(19.7%)	753	(9.8%)	633	(8.8%)	2,987	(11.9%)
SLO	94	(2.0%)	29	(0.5%)	18	(0.2%)	22	(0.3%)	163	(0.6%)
SRO	77	(1.6%)	200	(3.6%)	162	(2.1%)	188	(2.6%)	627	(2.5%)
STK	194	(4.1%)	296	(5.4%)	209	(2.7%)	163	(2.3%)	862	(3.4%)
VNO	655	(13.7%)	721	(13.1%)	838	(10.9%)	1,042	(14.4%)	3,256	(12.9%)
Missing	1,866	(28.1%)	5	(0.1%)	0	(0.0%)	1	(0.0%)	1,872	(6.9%)

SOURCE: RAND analysis of EAMS data.
NOTE: For office codes, see DIR, “Office Locations,” webpage, February 2024. STK = Stockton, which has been relocated to Lodi (LOD).

Table C.3. Examples of Health Conditions

Impairment Category	Examples
Back or Spine	back; low back; spine
Neck	neck; applicant sustained injuries to her neck
Other	hernia; trunk; chest
Psychiatric	psyche; psych; depression
Sleep Disorder	sleep; sleep apnea; sleep disorder
Head, Brain, or Nervous System	head; learning disability; nervous system
Headache	headaches; migraine headaches
Hearing	hearing loss; hearing; ear
Vision	eye; vision; blurry vision
Shoulder	shoulders; right shoulder; shoulder
Elbow	right elbow; left elbow; elbows
Hands	right wrist; wrists; hand
Upper Extremity, NEC	upper extremities; bilateral upper extremities; upper ext
Knee	left knee; right knee; knees
Leg	legs; leg; right thigh
Feet or Ankles	left ankle; foot; feet
Hips	hips; left hip; right hip
Lower Extremity, NEC	lower ext; lower extremities; lower extremity
Circulatory or Hypertension	hypertension; high blood pressure; hbp
Heart Disease	heart; coronary artery disease; valvular heart
Diabetes	diabetes; dm; diabetes type i
Obesity or Weight Gain	obesity; morbid obesity
Lungs	asthma; lungs; respiratory system
Gastrointestinal	GERD; gastrointestinal; digestive system
Kidney Disease	kidney; kidney disease; kidneys
Other	internal; allergies; hay fever
Sexual Dysfunction	sexual dysfunction; reproductive system; erectile dysfunction
Urinary System	bladder; prostate cancer; urological
Skin	skin; skin cancers; skins
Arthritis or Orthopedic, NEC	ortho; orthopedic; osteoarthritis
Other	sustained prior labor disabling injury which will be established by med reports; body sys; various body parts

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Table lists the 27 health condition categories used to analyze impairments alleged on the SIBTF application. The “Examples” column lists the three most common verbatim impairment descriptions assigned to each category. NEC = not elsewhere classified.

Table C.4. Prevalence as PPD and SII of Body Parts of Injury Cited as Basis for SIBTF Benefits

Health Condition or Body System	% with Body Part in PPD	% with Body Part in SII	PPD / SII Relative Risk	PPD – SII Difference in Prevalence
Diabetes	5%	1%	8.21	5%
Sexual Dysfunction	2%	0%	5.37	1%
Vision	6%	1%	5.04	5%
Obesity or Weight Gain	2%	1%	2.80	1%
Circulatory or Hypertension	22%	9%	2.52	13%
Gastrointestinal	23%	9%	2.45	14%
Lungs	8%	3%	2.25	4%
Other	42%	27%	1.59	16%
Sleep Disorder	8%	5%	1.56	3%
Hearing	9%	7%	1.42	3%
Headaches	5%	3%	1.36	1%
Head, Brain, or Nervous System	10%	7%	1.36	3%
Urinary System	3%	3%	1.35	1%
Psychiatric	37%	31%	1.18	6%
Feet or Ankles	16%	15%	1.04	1%
Hands	17%	17%	1.02	0%
Hips	8%	9%	0.84	-1%
Back or Spine	53%	63%	0.83	-10%
Skin	2%	3%	0.81	-1%
Knee	23%	33%	0.69	-10%
Heart Disease	6%	9%	0.67	-3%
Shoulder	21%	36%	0.59	-15%
Elbow	5%	10%	0.54	-5%
Leg	5%	9%	0.53	-4%
Upper Extremity, NEC	15%	29%	0.52	-14%
Lower Extremity, NEC	8%	16%	0.48	-8%
Neck	22%	46%	0.47	–24%

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Relative risk = ratio of PPD prevalence to SII prevalence. Estimates based on sample of 174 cases with at least one PPD and one SII identified in a Stipulations or F&A case-resolving document. Table omits Arthritis or Orthopedic, NEC (4 percent of PPD) and Kidney Disease (1 percent of PPD) as these conditions did not appear as an SII in a case resolution document for any of the cases sampled.

Table C.5. Prevalence as PPD and SII of Body Parts of Injury Alleged on SIBTF Application

Health Condition or Body System	% with Body Part in PPD	% with Body Part in SII	PPD / SII Relative Risk	PPD – SII Difference in Prevalence
Lungs	10%	1%	14.74	10%
Vision	9%	2%	4.92	7%
Diabetes	10%	3%	3.70	7%
Skin	3%	1%	3.00	2%
Circulatory or Hypertension	17%	6%	2.83	11%
Sleep Disorder	11%	4%	2.51	7%
Headaches	7%	3%	2.42	4%
Heart Disease	6%	3%	2.24	3%
Sexual Dysfunction	6%	3%	2.10	3%
Other	54%	28%	1.92	26%
Gastrointestinal	10%	5%	1.77	4%
Kidney Disease	2%	1%	1.73	1%
Arthritis or Orthopedic, NEC	7%	4%	1.68	3%
Obesity or Weight Gain	1%	1%	1.60	0%
Psychiatric	29%	20%	1.45	9%
Hearing	5%	4%	1.26	1%
Feet or Ankles	9%	9%	1.09	1%
Knee	20%	18%	1.07	1%
Urinary System	2%	3%	0.93	0%
Elbow	4%	4%	0.91	0%
Head, Brain, or Nervous System	16%	20%	0.83	–3%
Hips	6%	7%	0.79	–2%
Lower Extremity, NEC	9%	12%	0.77	–3%
Hands	10%	14%	0.73	–4%
Upper Extremity, NEC	18%	25%	0.70	–8%
Shoulder	20%	29%	0.68	–9%
Back or Spine	39%	62%	0.63	–23%
Neck	22%	41%	0.54	–19%
Leg	3%	8%	0.39	–5%

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 246 cases with at least one PPD and SII identified in the SIBTF application.

Table C.6. Number of PPD and SII Impairments Alleged by Year of SIBTF Application

Year of SIBTF Application	Number of Alleged PPDs	Number of Alleged SII Impairments
2010–2015	2.7	2.9
2016–2019	4.2	3.6
2020–2022	3.9	3.5
All Years	3.7	3.4

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 246 cases with at least one PPD and one SII identified in the SIBTF application.

Table C.7. Occupation of SIBTF Applicants in Comparison with Statewide Employment

Top Major SOC Match	Number of Applicants	Proportion of Applicants	Statewide Number of Employees, May 2022	% of Statewide Employment, May 2022	Mean Annual Wage, May 2022
Transportation and Material Moving Occupations	9,293	34%	1,537,150	9%	$46,880
Protective Service Occupations	1,872	7%	419,640	2%	$64,790
Office and Administrative Support Occupations	1,273	5%	1,996,330	11%	$52,170
Building and Grounds Cleaning and Maintenance Occupations	806	3%	498,480	3%	$41,940
Production Occupations	740	3%	822,790	5%	$48,670
Food Preparation and Serving Related Occupations	686	3%	1,499,090	9%	$37,220
Management Occupations	666	2%	1,273,760	7%	$155,120
Installation, Maintenance, and Repair Occupations	640	2%	538,900	3%	$63,170
Healthcare Practitioners and Technical Occupations	621	2%	931,030	5%	$119,400
Arts, Design, Entertainment, Sports, and Media Occupations	609	2%	381,100	2%	$107,330
Other Occupations	3,209	12%	7,737,570	44%	$75,922
Occupation Not Reported	5,671	21%	N.A.	N.A.	N.A.
Insufficient Information for Coding	962	4%	N.A.	N.A.	N.A.
Total	**27,048**	**100%**	**17,635,840**	**100%**	$73,220

SOURCES: RAND analysis of SIBTF case documents and EAMS data; U.S. Bureau of Labor Statistics, "Occupational Employment and Wage Statistics," Bureau of Labor Statistics, May 2023.
NOTE: Occupation descriptions for cases in sample were taken from SIBTF application or other documents when available. Occupation codes assigned using NIOCCS. Occupation assigned to highest-probability match. "Occupation Not Reported" = no occupation information available in SIBTF case documents or EAMS, or occupation is listed as "N.A." "Insufficient Information for Coding" = occupation reported, but highest-probability match from NIOCCS is "Insufficient Information." See Appendix A for details.

Table C.8. Occupation of SIBTF Applicants: Minor Occupations

Minor Occupational Group	Number of Applicants	Proportion of Applicants
Material Moving Workers	8,145	30%
Motor Vehicle Operators	1,127	4%
Law Enforcement Workers	861	3%
Building Cleaning and Pest Control Workers	709	3%
Entertainers and Performers, Sports and Related Workers	579	2%
Firefighting and Prevention Workers	536	2%
Information and Record Clerks	534	2%
Other Management Occupations	520	2%
Construction Trades Workers	447	2%
Other Installation, Maintenance, and Repair Occupations	395	1%
Other Occupations	6,562	24%
Occupation Not Reported	5,671	21%
Insufficient Information for Coding	962	4%
Total	**27,048**	**100%**

SOURCE: RAND analysis of SIBTF case data and EAMS data.
NOTE: Occupation descriptions for cases in sample were taken from SIBTF application or other documents when available. Occupation codes assigned using NIOCCS. Occupation assigned to highest-probability match. “Occupation Not Reported” = no occupation information available in SIBTF case documents or EAMS, or occupation is listed as “N.A.” “Insufficient Information for Coding” = occupation reported, but highest-probability match from NIOCCS is “Insufficient Information.” See Appendix A for details.

Table C.9. Occupation of SIBTF Applicants: Detailed Occupations

Detailed Occupation	Number of Applicants	Proportion of Applicants
Laborers and Freight, Stock, and Material Movers, Hand	7,852	29.0%
Heavy and Tractor-Trailer Truck Drivers	791	2.9%
Police and Sheriff's Patrol Officers	683	2.5%
Athletes and Sports Competitors	553	2.0%
Firefighters	536	2.0%
Managers, All Other	441	1.6%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	335	1.2%
Nursing Assistants	308	1.1%
Maintenance and Repair Workers, General	307	1.1%
Sales and Related Workers, All Other	291	1.1%
Teachers and Instructors, All Other	280	1.0%
Maids and Housekeeping Cleaners	265	1.0%
Cashiers	229	0.8%
Customer Service Representatives	214	0.8%
Registered Nurses	194	0.7%
Personal Care Aides	193	0.7%
Production Workers, All Other	191	0.7%
Medical Records and Health Information Technicians	190	0.7%
Light Truck Drivers	189	0.7%
Food Preparation Workers	189	0.7%
Other Occupations	6,186	22.9%
Occupation Not Reported	5,671	21.0%
Insufficient Information for Coding	962	3.6%
Total	**27,048**	**100.0%**

SOURCE: RAND analysis of SIBTF case data and EAMS data.
NOTE: Occupation descriptions for cases in sample were taken from SIBTF application or other documents when available. Occupation codes assigned using NIOCCS. Occupation assigned to highest-probability match. "Occupation Not Reported" = no occupation information available in SIBTF case documents or EAMS, or occupation is listed as "N.A." "Insufficient Information for Coding" = occupation reported, but highest-probability match from NIOCCS is "Insufficient Information." See Appendix A for details.

Table C.10. Proportion of Cases with 5+ Years Between DOI and SIBTF Open, by Year of Application

SIBTF Application Year	Proportion
2009 or earlier	47%
2010–2015	64%
2016–2019	52%
2020–2022	53%
All years	54%

SOURCE: RAND analysis of EAMS data.

Table C.11. Yearly Benefit and Non-Benefit Payments per Case by Year of Payment, 2010–2022

Year of Transaction	Mean Transaction Amount	Minimum Transaction Amount	25th Percentile Transaction Amount	Median Transaction Amount	75th Percentile Transaction Amount	Maximum Transaction Amount	*N* Case-Year Observations with 1+ Payment
Total Payments							
2010–2015	$25,419	$5	$4,103	$12,018	$27,210	$705,404	5,658
2016–2019	$21,436	$1	$2,908	$9,256	$20,899	$764,953	14,034
2020–2022	$30,381	$3	$4,682	$12,345	$30,777	$1,040,296	17,143
Benefits							
2010–2015	$32,351	$8	$8,776	$17,324	$38,705	$594,918	3,533
2016–2019	$37,554	$58	$7,667	$19,963	$45,223	$679,657	5,070
2020–2022	$51,132	$6	$11,056	$27,600	$56,565	$904,162	6,372
Non-Benefit Payments							
2010–2015	$5,713	$3	$1,152	$3,034	$7,408	$110,486	5,168
2016–2019	$7,971	$1	$1,381	$4,835	$10,794	$168,000	13,853
2020–2022	$11,506	$2	$2,174	$6,944	$14,117	$289,989	16,948

SOURCE: RAND analysis of SIBTF Claims Unit transaction data.

Table C.12. Yearly Non-Benefit Payments per Case by Year of Payment and Type of Payee, 2010–2022

Year of Transaction	Mean Yearly Payment	Minimum Yearly Payment	25th Percentile Yearly Payment	Median Yearly Payment	75th Percentile Yearly Payment	Maximum Yearly Payment	*N* Case-Year Observations with 1+ Payment
Attorney Fees							
2010–2015	$5,137	$3	$1,367	$2,862	$5,692	$105,794	3,045
2016–2019	$6,445	$7	$1,294	$3,270	$7,452	$166,540	5,030
2020–2022	$8,966	$2	$1,721	$4,606	$9,530	$142,700	6,314
Medical-Legal Payments							
2010–2015	$6,542	$5	$1,539	$5,123	$9,523	$35,230	1,549
2016–2019	$10,377	$4	$4,746	$8,643	$13,990	$77,637	5,888
2020–2022	$14,005	$3	$4,469	$9,569	$18,084	$257,821	8,528
Copy Services							
2010–2015	$1,060	$17	$281	$592	$1,293	$23,411	510
2016–2019	$1,735	$6	$372	$1,139	$2,496	$24,916	5,210
2020–2022	$1,699	$5	$318	$967	$2,418	$25,953	2,892
VR							
2010–2015	$4,600	$172	$3,420	$4,700	$5,576	$13,766	256
2016–2019	$5,966	$78	$4,553	$6,395	$7,763	$19,705	871
2020–2022	$6,927	$26	$5,230	$6,977	$8,130	$22,117	1,467

SOURCE: RAND analysis of SIBTF Claims Unit transaction data.
NOTE: Copy service payment statistics reflect only payments associated with the SIBTF case and exclude $8,373,381 (real 2023 dollars) in bulk payments that could not be allocated to individual cases.

Table C.13. States That Have Repealed or Sunsetted Their Subsequent Injury Benefit Funds, as of 2023

State	Statute	Year Repealed or Sunsetted
Maine	39 M.R.S. § 57	1991
Alabama	ALA. CODE § 25-5-57 (1975)	1992
Minnesota	MINN. STAT. Ann. § 176.131	1992
Colorado	COLO. REV. STAT. § 8-46-1014	1993
Kansas	KAN. STAT. ANN. § 44-566a	1994
Utah	UTAH CODE ANN. § 34A-2-703	1994
Connecticut	CONN. GEN. STAT. § 31-349	1995
Kentucky	KY. REV. STAT. ANN. § 342.120	1996
New Mexico	N.M. STAT. ANN. § 52-2-6	1996
Nebraska	NEB. REV. STAT. ANN. § 48-128	1997
Florida	FLA. STAT. § 440.49	1998
Rhode Island	28 R.I. GEN. LAWS § 28-37-4	1998
District of Columbia	D.C. CODE 32-1508	1999
South Dakota	S.D. CODIFIED LAWS § 62-4-34	1999
West Virginia	W. VA. CODE § 23-4-9b	2003
Georgia	GA. CODE ANN. § 34-9-368	2006
New York	N.Y. WORKERS' COMP. LAW § 15	2007
South Carolina	S.C. CODE ANN. § 42-9-400	2007
Arkansas	ARK. CODE ANN. § 11-9-525	2008
States that have never had an active subsequent injury benefit fund		
Oregon		
Vermont		
Wyoming		

Table C.14. Number of SIBTF Applications by Year Filed, 2010–2022

Year	Number of SIBTF Cases Opened
2010	1,157
2011	857
2012	659
2013	860
2014	723
2015	1,264
2016	1,509
2017	1,842
2018	2,071
2019	2,243
2020	2,132
2021	2,650
2022	2,448

SOURCE: RAND analysis of EAMS data.

Table C.15. Number of SIBTF Cases Resolved by Year of Resolution and Manner of Resolution, 2010–2022

Year	Total Resolved in Year	Total C&R in Year	Total Stipulations or F&A in Year	Total Dismissed in Year
2010	2,110	177	119	1,814
2011	724	177	127	420
2012	2,260	234	157	1,869
2013	379	183	119	77
2014	338	184	102	52
2015	455	173	130	152
2016	422	210	121	91
2017	1,366	266	195	905
2018	780	298	157	325
2019	514	295	190	29
2020	483	276	169	38
2021	831	371	381	79
2022	1,367	577	707	83

SOURCE: RAND analysis of EAMS data.
NOTE: Sixty-seven cases that were closed or dismissed were subsequently reopened or subject to further activity in EAMS. For simplicity, these cases are counted as being dismissed in the year of the initial dismissal. See Appendix A for details.

Table C.16. Number of SIBTF Cases Pending at End of Year, 2010–2023

Year	Number Pending at Start of Year
2010	6,621
2011	5,675
2012	5,812
2013	4,223
2014	4,707
2015	5,097
2016	5,910
2017	6,999
2018	7,495
2019	8,790
2020	10,522
2021	12172
2022	13,991
2023	15,073

SOURCE: RAND analysis of EAMS data.

Table C.17. Cumulative Growth of New SIBTF Applications vs. New Workers' Compensation Claims, 2010–2022

Year	Total Payroll	SIBTF Payments	New SIBTF Liabilities
2010	100%	100%	100%
2011	95%	126%	73%
2012	94%	183%	87%
2013	95%	185%	54%
2014	94%	207%	34%
2015	100%	256%	61%
2016	103%	348%	57%
2017	107%	501%	38%
2018	108%	610%	62%
2019	111%	751%	140%
2020	118%	845%	87%
2021	123%	1346%	228%
2022	118%	1706%	368%

SOURCE: DIR, 2023b, table 4.
NOTE: Quantities in table normalized by 2010 amounts (2010 = 100 percent). Workers' compensation claim volumes measured as "first reports of injury," as reported by DWC.

Table C.18. Distribution of Combined Disability Ratings by Case Resolution Year

Rating Range	Percentage of Cases Resolved 2010–2019	Percentage of Cases Resolved 2020–2022
70 to 74	12%	1%
75 to 79	7%	1%
80 to 84	7%	2%
85 to 89	6%	3%
90 to 94	4%	4%
95 to 99	4%	7%
100 or more	61%	82%

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of cases resolved by Stipulations or F&A with a combined disability rating reported, including 134 cases resolved in 2019 or earlier and 198 cases resolved in 2020 or later.

Table C.19. Aggregate Benefit and Non-Benefit Payments from SIBTF, 2010–2022

Year of Transaction	Total	Total Benefits	Total Non-Benefit Payments
2010	$13,619,710	$11,609,011	$2,010,699
2011	$17,093,382	$14,189,994	$2,903,388
2012	$24,915,596	$21,165,223	$3,750,373
2013	$25,175,348	$19,479,887	$5,695,461
2014	$28,182,807	$21,789,305	$6,393,502
2015	$34,832,112	$26,062,736	$8,769,376
2016	$47,391,385	$33,574,007	$13,817,377
2017	$68,177,852	$46,122,021	$22,055,831
2018	$83,013,797	$51,954,451	$31,059,346
2019	$102,244,188	$58,747,614	$43,496,573
2020	$115,067,695	$64,281,239	$50,786,456
2021	$183,385,654	$108,018,500	$75,367,155
2022	$232,354,221	$153,515,976	$78,838,244

SOURCE: RAND analysis of SIBTF Claims Unit transaction data.
NOTE: “Non-Benefit Payments” = payments to payees other than injured workers, including attorney fees, medical-legal exam payments, copy service fees, VR payments, and payments to other vendors. Payments associated with cases that were resolved before 2010 are not included, so total payments may not match those published in CHSWC reports or used to determine the SIBTF assessment. Data reflect 27,047 cases, of which 13,217 had at least one benefit or non-benefit payment from the SIBTF between 2010 and 2022.

Table C.20. Aggregate Non-Benefit Payments from SIBTF by Type of Payee

Year of Transaction	Attorney Fees	Med-Legal Payments	Copy Service Payments	VR Payments
2010	$770,009	$492,457	$28,663	$17,047
2011	$1,441,743	$754,688	$36,807	$72,419
2012	$2,191,708	$1,169,940	$41,783	$158,390
2013	$3,160,737	$1,903,837	$127,427	$249,940
2014	$3,725,277	$2,124,442	$76,901	$276,951
2015	$4,353,703	$3,688,523	$229,206	$402,803
2016	$5,822,984	$6,342,550	$759,737	$746,831
2017	$8,094,319	$11,226,295	$1,532,575	$891,364
2018	$9,118,759	$17,729,999	$2,404,214	$1,191,195
2019	$9,381,468	$25,798,447	$4,340,460	$2,366,869
2020	$11,200,832	$30,881,500	$4,490,402	$3,267,936
2021	$18,347,658	$45,567,655	$6,214,732	$3,791,634
2022	$27,060,809	$42,982,874	$2,580,444	$3,102,181

SOURCE: RAND analysis of SIBTF Claims Unit transaction data.

Table C.21. Proportion of Aggregate Payments Received by Top Payees by Payee Type, 2010–2022

	Attorney Fees	Medical-Legal Payments	Copy Fees	VR Payments
Top Payee	11.3%	15.9%	63.7%	20.3%
Top 3 Payees	24.3%	38.0%	86.4%	45.7%
Top 5 Payees	31.2%	46.9%	94.2%	64.7%
Top 10 Payees	40.8%	63.7%	98.3%	87.8%
Top 20 Payees	54.3%	77.3%	99.7%	99.0%

SOURCE: RAND analysis of SIBTF Claims Unit transaction data.
NOTE: Payments associated with cases that were resolved before 2010 are not included, so total payments may not match those published in CHSWC reports or used to determine the SIBTF assessment. Data reflect 27,047 cases, of which 12,820 had at least one non-benefit payment from the SIBTF between 2010 and 2022.

Table C.22. Aggregate Total Present Discounted Liability of Resolved Cases, by Year of Resolution

Year of Case Resolution	Total Present Discounted Liability
2010	$164,813,797
2011	$121,017,469
2012	$12,3901,388
2013	$90,251,187
2014	$58,629,539
2015	$102,429,605
2016	$96,767,898
2017	$59,477,399
2018	$101,620,144
2019	$236,115,384
2020	$146,530,478
2021	$386,468,656
2022	$608,363,153

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 769 cases with a resolution. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. Future COLAs for LP and PTD benefits assumed to be 3.9 percent beginning in 2025. All totals adjusted to real 2023 dollars after discounting. Averages calculated using sampling weights.

Table C.23. Total Expected PDV Liabilities for Resolved and Unresolved Cases, by Application Year

Year of Case Resolution	Total Present Discounted Liability
2009 or earlier	$929,968,422
2010	$134,166,966
2011	$259,641,959
2012	$168,022,727
2013	$265,897,086
2014	$125,670,642
2015	$288,782,592
2016	$477,752,236
2017	$673,449,887
2018	$830,522,655
2019	$1,075,221,576
2020	$904,196,901
2021	$936,970,909
2022	$858,786,990

SOURCE: RAND analysis of SIBTF case documents.
NOTE: Estimates based on sample of 769 cases with a resolution. Calculations reflect present values discounted to the year of resolution, based on a discount rate of 3 percent. Future COLAs for LP and PTD benefits assumed to be 3.9 percent beginning in 2025. All totals adjusted to real 2023 dollars after discounting. Averages calculated using sampling weights.

Abbreviations

ADA	Americans with Disabilities Act of 1990
C&R	compromise and release
CHSWC	Commission on Health and Safety and Workers' Compensation
CMS	case management system
COLA	cost-of-living adjustment
CVC	Combined Values Chart
DEU	Disability Evaluation Unit
DIR	Department of Industrial Relations
DWC	Division of Workers' Compensation
EAMS	Electronic Adjudication Management System
F&A	findings and award
FEHA	California Fair Employment and Housing Act of 1959
GERD	gastroesophageal reflux disease
LP	life pension
NASI	National Academy of Social Insurance
NEC	not elsewhere classified
NIOSH	National Institute of Occupational Safety and Health
NIOCCS	NIOSH Industry and Occupation Computerized Coding System
NIOSH	National Institute for Occupational Safety and Health
P&S	permanent and stationary
PD	permanent disability
PDRS	Permanent Disability Rating Schedule
PDV	present discounted value
PPD	pre-existing permanent partial disability
PTD	permanent total disability
QME	qualified medical examiner
SB	Senate Bill
SIBTF	Subsequent Injuries Benefits Trust Fund
SII	subsequent industrial injury
SOC	Standard Occupation Code
SSA	Social Security Administration
TD	temporary disability
TPD	temporary partial disability
TTD	temporary total disability
VR	vocational rehabilitation

WCAB	Workers' Compensation Appeals Board
WCALJ	workers' compensation administrative law judge
WCC	workers' compensation consultants
WCIS	Workers' Compensation Information System
WCJ	workers' compensation judge

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