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A Study of Occupational Disease Claims Within Washington's Workers' Compensation System

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**A STUDY OF OCCUPATIONAL DISEASE CLAIMS
WITHIN WASHINGTON'S WORKERS' COMPENSATION SYSTEM**

Upjohn Institute Technical Report No. 13-028

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1 EXECUTIVE SUMMARY

The Request for Proposals (WashL&I_RFP K2272) underlying this study notes the contentiousness that has arisen in the state regarding occupational disease (OD) claims in the Washington workers' compensation system. It contains the following quote:

Some assert that Washington's law allows coverage of conditions that aren't primarily work related and that Washington has one of the broadest legal standards for occupational disease coverage in the nation. They suggest that diseases caused by natural aging or conditions outside the workplace are increasingly being accepted as occupational disease claims in Washington State. Others feel that the current law is appropriate and that to tighten the legal definition is to deny workers the only remedy that they are eligible for. (p. 3)

Aside from these assertions, other reasons to conduct a thorough study of OD claims are that they seem to be an increasing share of compensable claims,¹ they result in longer durations of time loss than other claims, their rate of dispute is far higher than non-OD claims, and concomitantly, they require more administrative costs per claim (Blessman 1991).

This report completes a study of OD claims in Washington conducted by a team of researchers through a contract between the Washington Department of Labor and Industries (L&I) and the Upjohn Institute for Employment Research. The report highlights and summarizes work from three deliverables that have been submitted to the Department of Labor and Industries. The first of these deliverables presents a discussion of the adjudication of OD claims in the state and a chronology of the development of OD statutory language, court interpretations, and claim adjudication practices in Washington. The second deliverable inventories definitions of occupational disease and other elements of OD statutes and regulations from throughout the United States. The third deliverable examines the trends in OD claims across dimensions such as exposure, socio-demographic characteristics, and accepted diagnoses.

1.1 Contextual Data

Chapter 2 of the document sets the stage. In an attempt to better understand the social, economic, and political environment of the workers' compensation system in Washington, it presents data from relevant national data sources: 1) Occupational Safety and Health Administration (OSHA) logs compiled by the U.S. Bureau of Labor Statistics (BLS); 2) a national survey of workers' compensation paid benefits and costs conducted by the National Academy of Social Insurance (NASI); and 3) data compiled by the National Council on Compensation Insurance (NCCI), which is the largest national data source for private insurance rate-making in workers' compensation in the U.S. The chapter also presents a brief comparison of trends in compensable claims between Washington and its neighbors Oregon and British Columbia. The comparative data presented in this chapter are especially important during a

¹ Blessman (1991) reports that OD accounted for 6 percent of claims in the state in 1984 and the third chart in the RFP shows a slight upward trend from about 7 percent in 1998 to about 8.5 percent in 2009.

period of declining incidence of injuries and illnesses to maintain a perspective on what is average or normal during this particular period.

The BLS data on recordable OSHA incidents document that Washington has a greater occupational injury and illness burden than in the average state.² This would be expected to lead to a higher incidence of workers' compensation claims in Washington as well. The NASI survey data show that paid workers' compensation benefits are substantially higher (by 80%) in Washington. Employer costs also appear to be higher than average and are declining more slowly than in other states. However, the impact of employees paying one-half of medical and inflation protection costs through a payroll tax is not figured into these numbers. Reducing the employer share of costs by the roughly 25 percent of workers' compensation costs borne by workers brings the cost to Washington's employers to just about the national average.

The NCCI data show that Washington experienced a decline in the number of workers' compensation claims involving traumatic injury that was similar to that in 36 other jurisdictions, but occupational disease claims were dropping only about half as fast as average. This means a relative increase in the incidence of occupational disease claims in the State of Washington.

The comparison of the claims experience in Oregon, Washington, and British Columbia indicates that the levels of workers' compensation traumatic injury claims were declining in all three of these jurisdictions over the period 1997 to 2009, especially as employment declined with the great recession beginning in 2008. This is consistent with the secular trend in work-related injuries revealed by other statistical series, such as OSHA log data. But the OD trends in the three jurisdictions varied. OD claims declined substantially in British Columbia through much of the period, reaching a level in 2009 approximately 47 percent lower than in 1997. Oregon OD claims were more stable through most of the period, but fell rapidly after 2007 to a level 30 percent below 1997. By contrast, occupational disease claims in Washington were relatively level across the period, until the decline in 2008. The result is that occupational disease claims have been a rising proportion of all compensable claims in Washington while their proportion has fallen in both Oregon and British Columbia.

1.2 Historical Development of OD Statutory Language

Chapter 3 presents a chronology of the statutory language and judicial interpretations that shaped the current legal basis for handling OD claims in Washington. Washington's Industrial Insurance Act, Chapter 74 Sec 3, goes back to 1911. There was no provision in the original law to provide protection for occupational disease. The statute made it clear that its intent was not to give coverage for occupational disease. Section 7675 defined "injury" as follows:

The words 'injury' or 'injured' as used in this act refer only to an injury resulting from some fortuitous event as distinguished from the contraction of disease.

² However, the 2008 Upjohn pension study showed that this was not due to the industrial mix in Washington. Using Washington injury rates and the national employment distribution resulted in very little change. See Barth, et al. *Washington Pension System Review*, p. 2-78.

This was understood by the courts to leave the issue of occupational disease to alternative remedies, if any. As much as 15 years later the courts applied the Industrial Insurance Act in such a way as to exclude occupational disease.³ The statute was amended in 1927 and a new definition of injury was placed into the statute as follows:

*A sudden and tangible happening of a traumatic nature, producing an immediate or prompt result, and occurring from without, and such physical condition as results therefrom.*⁴

In the Seattle Can Company case in 1928, the Supreme Court ruled that the occupational diseases being litigated were, in fact, injuries caused by a fortuitous event (poor ventilation) and thus were compensable. In amendments to the law in 1937, the legislature included a list of 21 conditions and causes that were to be covered for workers' compensation as occupational diseases.⁵ The Polson Logging decision⁶ illustrates the Supreme Court's view of occupational disease in 1938:

As we understand it, an occupational disease is one which is due wholly to causes and conditions which are normal and constantly present and characteristic of the particular occupation; that is, those things which science and industry have not yet learned how to eliminate. Every worker in every plant of the same industry is alike constantly exposed to the danger of contracting a particular occupational disease.

From the foregoing definition, it is clear that before any disease may be classified in a legal sense as an occupational disease, it must be a disease, or diseased condition, which is peculiar to a given occupation and brought about by exposure to certain harmful conditions which are constantly present, and to which all workmen in the occupation are continually exposed.

However, it was plain that many diseases, including some that were listed in statute, could also arise from non-work exposures.

In 1941, the legislature amended the statute again and provided, for the first time, a definition of occupational disease.⁷ It also eliminated the schedule of accepted occupational diseases. Workers' compensation was thereafter to cover "*such diseases or infection as arises naturally and proximately out of extra-hazardous employment.*"⁸ The definition from the 1941 statute is nearly the same one as found today in RCW 51.08.140.⁹

³ Sandahl v. The Department of Labor and Industries, 170 Wash. 380; 16 P.2d 623.

⁴ Ch 310 2.

⁵ Laws of 1937, ch. 212, § 1.

⁶ Polson Logging Company v. E. Pat Kelley, Director, Department of Labor & Industries, et. al. , 195 Wash. 167; 80 P.2d 412; 1938 Wash. LEXIS 391 (1938).

⁷ Laws of 1941, ch. 235 §1.

⁸ Laws of 1941, chapter 235, section 1.

⁹ At that time only injuries and occupational illnesses in extra- hazardous employment were covered under the statute. The references to extra-hazardous employment were dropped from the statute in 1959. Coverage today is very broad and is no longer limited to hazardous or extra- hazardous employments.

In the late 1940s, the Washington Supreme Court wrote two decisions that essentially established a “but for” standard. In the Simpson Logging decision, the Court sustained the acceptance of a claim that involved asthma despite the company’s argument that asthma is an allergy or personal sensitivity to specific substances afflicting mankind generally. It wrote the following:

Under the present act, no disease can be held not to be an occupational disease as a matter of law, where it has been proved that the conditions of the extrahazardous employment in which the claimant was employed naturally and proximately produced the disease, and that but for the exposure to such conditions the disease would not have been contracted. [Underlining added here.]

In the Favor case, the Supreme Court overturned the successful appeal (at the Court of Appeals level) of a denial of a heart attack claim as an OD. In seeking to explain legislative intent of the “proximate cause” term, the Court concluded that:

...it would follow that they meant that the condition of the extrahazardous employment must be the proximate cause of the disease for which claim for compensation is made, and that the cause must be proximate in the sense that there existed no intervening independent and sufficient cause for the disease, so that the disease would not have been contracted but for the condition existing in the extrahazardous employment. [Underlining added here.]

In the Kinville case (1983), the Supreme Court ruled in a mental health claim that the disease did not have to be specific to the occupation of the claimant. The court concluded:

In this regard, we do not believe the Legislature intended to limit compensation to situations where the claimant is able to demonstrate that his disease is unique to his particular type of employment. Instead, we believe the statute requires a showing by the claimant that the job requirements of his particular occupation exposed him to a greater risk of contracting the disease than would other types of employment or nonemployment life.

In 1987, in the Dennis case, the Department of Labor and Industries claimed that a mere showing that the claimant’s work activities aggravated a pre-existing and nonindustrial osteoarthritic condition did not suffice, as a matter of law, to establish that the disease arose “naturally and proximately” out of the worker’s employment. Literally speaking, a disease did not “arise” out of a worker’s employment if the worker contracted the disease before the employment began. The court did not accept this argument. It countered that construing “arose” in such a literal and narrow fashion would be inconsistent with another aspect of the statute that expressly provides for the employee with an occupational disease to be treated in the same manner as one with an occupational injury.¹⁰ The court observed:

¹⁰ See Wash. Rev. Code § 51.32.180.

...The worker whose work acts upon a preexisting disease to produce disability where none existed before is just as injured in his or her employment as is the worker who contracts a disease as a result of employment conditions.

It then cited language from an earlier Washington decision:¹¹

...The worker is to be taken as he or she is, with all his or her preexisting frailties and bodily infirmities.

After presenting this line of historical development of the definition of occupational disease, chapter three also discusses cases involving the issues of allocation of benefit responsibility across employers and insurers, and the statute of limitations.

1.3 Adjudication Processes

Chapter 4 presents a discussion of the processes followed in adjudicating OD claims. The description of the adjudication process focuses on the process as practiced currently at the Department of Labor and Industries (the exclusive State Fund insurer). Where it is relevant, it also seeks to contrast State Fund procedures with L&I oversight of self-insured claims. Unfortunately, there is no comprehensive source of detailed information on the adjudication of workers' compensation claims by self-insured employers, so this part of the discussion is necessarily impressionistic.¹²

Workers' compensation claims in Washington originate with a Report of Occupational Injury or Disease, commonly referred to as a Report of Accident (ROA), from an injured worker and his/her medical provider. While the worker attests to the time and place of the injury, and describes how the injury or exposure occurred, the primary responsibility is assigned to the medical provider in signing the ROA form and submitting it to L&I. The medical provider provides a diagnosis, the subjective and objective findings that support the diagnosis, and a treatment plan.¹³

The doctor also must indicate whether a causal relationship (more probably than not) exists between the incident described by the worker and the condition diagnosed and whether the condition will prevent an immediate return to work. Any preexisting impairments or previous treatment that might bear on the recovery are also noted.

¹¹ *Wendt v. Department of Labor & Indus.*, 18 Wn. App. 674, 682-83, 571 P.2d 229 1977).

¹² Our description of the structure and functions at L&I is dependent upon three main sources. First, the online sources provided by L&I as part of OLRs (On-Line Reference System). OLRs supports the adjudicator function by documenting the law, the regulations, a policy manual, an adjudicator manual, summaries of important legal decisions, and much more. While sometimes dated, this online resource provides nearly everything the adjudicator needs to know to do his or her job. Second, we rely on our independent legal research, primarily through the Lexis system and written materials provided by L&I staff. These resources provided the background material on the development of the Industrial Insurance Law. A third source was our interviews with informed participants in and observers of the Washington workers' compensation system.

¹³ Beginning in the middle of 2011 and spreading gradually through the state by district over 2012 and 2013 a new "FileFast" system is being launched. It allows workers to file claims online or through a call center. Providers can file claims online in addition to the existing paper mail or fax process. The program aims to eliminate delays, reduce costs, and improve service to workers, employers, and providers.

ROAs are routed to Claims Initiation units where data entry staff sort them into time loss and medical only claims. Time loss claims are assigned priority for imaging and indexing because they have more urgency due to the worker's inability to work, and the time needed to process. ROAs then go to the Imaging Department where they are scanned and keyed into the LINIIS (Labor and Industries Industrial Insurance System) claims management system.

The incoming claims are processed through the LINIIS computer algorithm that estimates the likely duration and complexity of a claim according to the Report of Accident (ROA) and assigns it to a specific Claims Unit and individual Claim Manager accordingly. For very straightforward claims (mostly medical only), the system performs an "auto-adjudication" to approve payment and close the claim. Such claims are also reviewed by a Claim Manager in the unit that adjudicates medical-only claims.

From the Claim Manager's perspective, the burden of adjudicating occupational diseases is great. This reflects the causation issue, of course, but also the complexity imposed by the need to identify the timing of relevant causative exposures and the responsible employers at the times of exposure.

According to the L&I On-line Reference System (OLRS), which serves as the documented authority for Claim Managers, the elements of compensability in an occupational disease claim are several, as follows:

- Arise naturally from distinctive conditions of employment
- Proximate cause
- Increased risk
- Specific and continuous activity
- Aggravation of pre-existing condition
- Statute of limitations

Both the legal criteria and the medical criteria must be met for an occupational disease claim to be established. Issuance of the WO (Allow Without Employer Liability) order means that medical aid benefits and time loss benefits can begin to be paid. After determining the date of manifestation (in contrast to the date of injury in an injury claim) and whether the State Fund has coverage, the Claim Manager must decide whether a single employer or multiple employers were responsible for the harmful exposures that led to the occupational disease. If the disease developed over a considerable period of time, it is likely that multiple employers may have contributed. In this case a determination of where the exposure occurred and for what period of time must be made.

If multiple employer liabilities can be established, the cost of the claim will be prorated and charged to the experience rating accounts of the employers according to their relative contribution to the total exposure. This proration is applied for the three-year period of experience rating, but does not apply if the degree of causation assigned to a particular employer is less than ten percent of the total. Note that this procedure is only followed for State Fund insured employers. By Supreme Court decision, self-insured employers must use the "last

injurious exposure” rule, which means that full liability accrues to the employer at the time of the last injurious exposure.

The decision rendered by the Claim Manager is generally final and binding 60 days after it has been communicated (although there are also interlocutory orders for temporary decisions), but any party may file a written protest, stating the specific issue with which they disagree. Parties include the worker, the employer, the medical provider, the beneficiary or any other person aggrieved by the order. Such “protests” must be filed within 60 days of the receipt of the order.

Besides the informal protest option, parties to a decision have formal appellate rights. The first appeal is to the Board of Industrial Insurance Appeals (BIIA), which is an independent state agency charged with responsibility for reviewing and deciding disputes over L&I decisions on workers’ compensation claims.

Interested parties can appeal the BIIA decision on any issue of law or fact to the Superior Court with jurisdiction for their location; except for L&I, which can only appeal on issues of law. Such appeals can be set for a jury trial or a bench trial depending on whether it involves a purely legal issue, though most trials do not involve a jury. Superior Court appeals are “de novo” appeals, but the facts as determined by the BIIA are regarded as correct. In the event of a jury trial at Superior Court, the testimony from the BIIA hearing and depositions are read aloud to the jury.

Any party may appeal a Superior Court decision to the Court of Appeals and ultimately the State Supreme Court. There is a Policy and Litigation Control Committee (PLCC) made up of members from L&I and the Assistant Attorney General’s (AAG) office that meets monthly to consider possible cases to appeal. However, since Court decisions have the potential to change L&I policy, they are very careful in selecting claims to appeal and an appeal from a court decision by L&I is not common.

While occupational disease claims are not usually distinguished from injury claims for their initial adjudication, there are some occupational disease claims that have been designated for special administrative treatment. These include occupational disease claims that result from chemical or other hazardous exposures, hearing loss claims, and claims involving presumptions for certain occupations, such as firefighters.

1.4 Comparative Analyses of State Statutory Language

Chapter 5 inventories states’ statutes regarding various aspects of the definition of occupational disease. The words used to define occupational disease are significant as they enable the state to categorize a condition that may affect eligibility for compensation or the size of any indemnity benefits. Table 1.1 provides a summary of the statutory wording used by state. It displays the states that have key phrases used in defining or limiting occupational disease claims.

Table 1.1 Key Phrases in Statutes, by State

State	Arises/ Arising Out of Employment	Direct Causal Connection	Proximate/ Proximate Cause	Major Contributing Cause	Major, Predominant, Significant, or Prevailing Incidental to Character of Bus.	Naturally/ Natural Incident	"Peculiar to"	Nature of the Employment	"Ordinary Disease of Life"	Diseases of Aging	Rational/ Reasonable
AL	X						X				
AK	X					X					
AR	X				X		X	X			
AZ		X	X			X	X		X		
CA											
CO			X			X		X	X		
CT		X					X		X		
DE	X					X					
FL				X			X	X	X		
GA	X	X				X					
HI			X					X			
ID	X						X	X			
IL	X	X					X		X		X
IN	X	X	X			X		X	X		X
IA	X	X				X		X	X		
KS	X						X	X	X		
KY	X	X	X			X		X		X	X
LA				X	X		X				
ME	X						X				
MD											
MA					X			X			
MI	X				X		X		X	X	
MN	X	X	X			X	X	X			
MS	X	X			X						
MO	X				X				X	X	X
MT	X			X							
NE						X	X		X		
NV	X	X	X		X	X			X		
NH	X						X			X	
NJ	X						X			X	
NM	X	X	X								
NY						X		X			
NC						X			X		
ND	X						X				
OH									X	X	
OK	X				X					X	
OR	X			X							
PA											
RI								X			
SC	X	X				X	X		X		
SD	X			X							
TN	X		X			X		X			
TX	X					X					
UT	X										
VT							X				
VA	X	X	X			X		X	X		X
WA	X		X			X		X			
WV											
WI											
WY		X				X		X		X	

One of the most common terms found in state workers' compensation usage as a test of compensability is that the injury, illness, or disability is one that arose out of and in the course of employment. The chapter identifies the 31 states that use this language and provides statutory or regulatory excerpts. Fifteen states include the term causal connection or direct causal connection. Absent a direct causal connection, or simply a causal connection, between a worker's employment and the disease condition, a claimant will not meet the test of having an occupational disease in one of these states. Causality is likely to be a sterner test than Washington's "arises naturally and proximately out of employment."

Thirteen states qualify causality to be the "major cause." "Major contributing cause" is an important component of the law in some states, but it should be noted that other states may achieve the same outcomes with alternative language. Terms such as "primary cause," "significant cause" or "predominant cause" for example, may be as limiting to applicants as "major contributing cause." Eleven states use the terms proximate or proximate cause as does Washington in its definition. Many states require the occupational disease to be "incidental to the business," "natural or naturally incident," "peculiar to," or "due to the nature of the employment."

Chapter 5 also discusses statutory language that limits OD claims. Eighteen states explicitly exclude ordinary diseases of life or a nearly equivalent phrase. Included in the 18 are a few states that use a term such as "to which the public is equally exposed" or some close variant of that terminology. However, some states that have made ordinary diseases non-compensable, may allow them to be compensable if special tests are applied to them, enabling them to be compensated in selective instances. Eight states specifically mention that an occupational disease is not a condition that results from the aging process.

Finally, chapter 5 presents states' language pertaining to the standards of proof. Seven states impose as a requirement that the occupational disease be apparent as such to the rational mind.

1.5 Recent Changes in State Statutes

The purpose of chapter 6 is to summarize the major legislative changes that have occurred in recent years regarding occupational diseases. It covers legislation enacted in the states during the years 1999 to 2011. It finds that newer provisions generally restrict access to benefits in an attempt to reduce employer costs of workers' compensation.

The first subsection of the chapter focuses on changes in definitions or compensability conditions for OD claims. It summarizes the changes in nine states. Interestingly, many of these changes deal with mental disabilities. For example, Michigan's 2011 amendments changed that state's statutes by adding the following underlined words:

Mental disabilities are compensable if arising out of actual events of employment, not unfounded perceptions thereof, and if the employee's perception of the actual events is reasonably grounded in fact or reality.

The 2007 law change in South Carolina defined how claims for mental injuries, illness, or stress that are aggravated by physical injury are to be compensated. Stress-related mental injuries, heart attacks, strokes, embolisms, and aneurisms are not compensable if they result from events that are incidental to normal employer-employee relations. In 1999, South Dakota stipulated that injury does not include a mental injury arising from emotional, mental, or nonphysical stress or stimuli. Of course, other states made changes to a variety of other definitions.

The second part of the chapter presents changes to the standards of proof in occupational disease claims for workers' compensation benefits. Generally, these tended either to clarify or to tighten those standards, making it somewhat less likely that claims would be accepted. For example, in 2011, Arkansas reset the standard to "preponderance of evidence" rather than the previously employed "clear and convincing" standard for purposes of finding a causal connection between employment and the occupational disease. As another example, in 2005, Oklahoma required that a compensable injury or illness must be established by objective medical evidence. In 2011, it toughened the standards for medical evidence. Medical opinions supporting employment as the major cause of occupational disease or age-related deterioration or degeneration must be supported by objective medical evidence. "Objective medical evidence" means evidence that meets the criteria of Federal Rule of Evidence 702 and all U.S. Supreme Court case law applicable thereto.

States continue to wrestle with the way to deal with time limits in claims for occupational disease. The next section of the chapter provides thumbnail descriptions of changes in time-related issues in statutes in 10 states over the 1999–present time period. As more evidence and examples of diseases resulting from exposures that occurred many years prior to the development of the illness have emerged, laws appeared to be in need of adjustment. Employees, employers, or insurers may find themselves hard-pressed to provide evidence regarding working conditions and exposures that might have existed many years ago, as well as documenting an employee's work history and resulting possible exposure to occupational hazards. The result is a continuing fine tuning of time limit rules.

The chapter points out that a small number of states have changed their statutes in matters dealing with the aggravation of pre-existing conditions, apportionment of responsibility, benefit levels, and diseases of aging. With respect to the first of these, in 2011, Kansas legislated that an injury is no longer compensable simply if work is a triggering or precipitating factor, or if work simply aggravates, accelerates, or exacerbates a preexisting condition or makes it symptomatic. The legislature deemed that for an injury to be compensable, the work accident must be the "prevailing" factor in causing the 1) injury, 2) medical condition, and 3) resulting disability or impairment. Ohio, in 2006, amended its act to require a "substantial" aggravation of a pre-existing injury, rather than merely a "symptomatic" aggravation, in order to be compensable.

On the issue of apportionment, California SB 899 in 2004, made a change in the law applying to apportionment for pre-existing conditions. The employer is responsible only for the approximate percentage of injury caused by the present work-related injury. Thus the scope of employer responsibility would seem to be reduced. Iowa and Missouri also have made recent changes in apportionment. Statute changes to benefit schedules were made in Colorado, which relaxed a limitation on mental impairment benefits for claimants with neurological brain damage,

and Illinois, which reduced benefits for loss of use of hand resulting from carpal tunnel syndrome.

At least three states specifically include some recognition of aging and natural deterioration in their changes to occupational disease legislation. In 2005, Missouri included in its changes the following: Gradual deterioration or progressive body degeneration caused by aging or the normal activities of day-to-day living will not be compensable under the amendments. In that same year, Oklahoma noted that “Compensable injury” shall not include the ordinary, gradual deterioration, or progressive degeneration caused by the aging process, unless the employment is a major cause of the deterioration or degeneration and is supported by objective medical evidence. Finally, in Michigan in 2011, the three underlined words that follow were added to a section dealing with compensation and the aging process. Mental disabilities and conditions of the aging process, including but not limited to heart and cardiovascular conditions, and degenerative arthritis shall be compensable if contributed to or aggravated or accelerated by the employment in a significant manner.

Finally, chapter 6 notes that many states have altered language around presumptive coverages over the past 15 years.

1.6 Trends in Occupational Disease Claims

Chapter 7 presents quantitative analyses of trend data. It should be noted that virtually all of the analyses in the chapter are based on the authors’ tabulations of claims data from an extract of the data housed in the L&I data warehouse. In particular, the data extract includes only compensable claims and excludes hearing loss claims. As explained in the chapter, the analyses of trends is limited to the time period of 1997 to 2009. In a few instances, data that are more recent than 2009 are noted, but for the trend analyses, 2009 was used as the end point of the analysis period because of concerns that more recent data are subject to considerable adjustment due to the maturation of claims. The trends that are presented in the chapter are necessarily silent about the statistical picture of claims experience prior to 1997, and since 2009.

The overriding claims trends in Washington during the period 1997 to 2009 are downward, as they have been in virtually all states. Total claims dropped by almost 100,000 annually between 1997 and 2009 from about 247,500 to about 148,000. Total accepted claims declined by over 90,000 from a level of 222,651 in 1997 to 130,870 in 2009. Total denied claims dropped from just under 25,000 in 1997 to just over 17,000 in 2009.

The decreases have mainly occurred with injury claims. Compensable injury claims have fallen steadily since 1997, although their levels were fairly constant over a five-year stretch from 2003 to 2007. Overall, compensable injury claims fell by about 30 percent from 1997 to 2009 from a level of more than 50,000 to a level of about 36,400. Compensable OD claims rose substantially between 1997 and 2000—an almost 20 percent increase from just over 2,500 to just under 3,000. Over the period from 2000 to 2007, the level of compensable OD claims (without hearing loss) were fairly constant at about 2,900; and then they decreased substantially between 2007 and 2009. So while the levels of injury claims were falling, the levels of compensable OD claims have remained relatively constant. Thus the percentage of all compensable claims that are OD claims has risen to over 6.0 percent.

In general, the overall benefits¹⁴ that are paid for compensable OD claims are higher than the benefits paid for injury claims. The mean and median benefit for an injury claim over the time period 1997–2008 are \$23,427 and \$3,465 respectively.¹⁵ The identical statistics for an OD claim are \$44,253 and \$14,468; the mean for OD claims is nearly two times and the median is almost four times larger.

Not surprisingly, the trends in time-loss days are similar to the trends in per claim benefits paid. The average time loss for a compensable OD claim (excluding hearing loss claims) rose from about 273 days to 350 days in the four-year period from 1997 to 2000. The statistic peaked in 2000, and then slowly declined through 2008. There is about a 10 percent decline in the average from 350 to 315 days.¹⁶ The chapter points out that the benefits paid and the time-loss days for a self-insured OD claim are approximately one-half or less the benefits paid and time loss for a state fund claim.¹⁷

Following the presentation of general trends in claims and benefits, the chapter includes sections on the trends in worker exposure and trends in diagnoses to ferret out any correlation with trends in claims. Using data supplied by L&I on insured hours by risk class, the analysis shows that the total number of insured hours in the state is cyclical, but has grown substantially over the past 15 years. The state was in recession in the 2002–2004 and 2008–2010 periods, and was expanding in the 1997–2000 and 2004–2007 periods. In looking at cycle peak to cycle peak or trough-to-trough, the increase in insured hours in the state is approximately 400,000, or slightly less than 10 percent. The increase in insured hours along with the decreasing trend in compensable injury claims and constant (or slightly decreasing) levels of compensable OD claims implies a substantial overall decrease in the incidence of compensable injury and OD claims.

The industries (based on groupings of risk classes) with the highest annual incidence rates for compensable OD claims (excluding hearing loss) between 1997 and 2009 are Building Construction (3.8 to 4.5 compensable OD claims per 1000 FTEs), Trades (2.9 to 4.1 compensable OD claims per 1000 FTEs), Miscellaneous Manufacturing (2.9 to 3.7 compensable OD claims per 1000 FTEs), and Forest Products (2.5 to 3.8 compensable OD claims per 1000

¹⁴ The benefits data rely on the variable that is identified in the data warehouse as “ptd_total,” which includes time loss, medical costs, loss of earning power payments, pension reserved amounts, supplement pension fund payments (cost-of living increases), PPD awards, burial expenses for fatalities, and accident fund payments for other expenses. These data are approximately 5 to 10 percent larger than the variable “actuary_ptd_total.” Another variable that was examined was “actuary_incur_tot.” The distribution of this variable was similar to the other two—the incurred expenses for OD claims were significantly higher than for injury claims—and the levels of the variables were quite close in the early years of our trend analyses, but the incurred costs diverged and were larger after 2005.

¹⁵ These calculations do not include \$0, and we end the range of years at 2008 since so many recent claims continue to have payments.

¹⁶ These averages are calculated for all claims with non-zero time loss days. These averages are slightly longer than averages calculated only for closed cases suggesting that some of the open cases have long time loss periods that are increasing the averages. For example, the average for all claims for injury year 1997 is 273.8 days, whereas it is 267.0 days for closed claims. For injury year 2002, the average for all claims is 327.1 days, whereas it is 288.5 days for closed cases.

¹⁷ One reason for this relationship is that self-insured employers may be more eager to resolve claims. For example, they are more likely to enter side-bar agreements that settle such claims.

FTEs). The industry groups with the lowest annual incidence rates for compensable OD claims (i.e., the lowest rates of claims per 1000 FTEs) are Schools (0.4 to 0.6 compensable OD claims per 1000 FTEs), Miscellaneous Professional and Clerical (0.4 to 0.8 compensable OD claims per 1000 FTEs), and Stores (0.8 to 1.3 compensable OD claims per 1000 FTEs).

Incidence rates by insurer type are quite different for compensable OD and compensable injury claims. State fund employers experienced a lower incidence of compensable injury claims than did self-insured employers; the difference being approximately 25 percent. On the other hand, self-insured employers have an incidence of compensable OD claims that is about one-quarter to one-third the level of incidence for state fund employers (the former had an incidence of compensable OD claims—except for hearing loss—of 0.3 to 0.5 per 1000 FTE, whereas it is 1.3 to 1.8 for state fund employers).

Chapter 7 also presents incidence rates by occupation. The occupations that have the highest rates of incidence are Farming, Fishing, and Forestry Occupations (average of 3.5 compensable OD claims per 1000 employees in that occupation over the 1999 to 2009 period); Construction and Extraction Occupations (average of 3.1 compensable OD claims per 1000 employees); Production Occupations (average of 2.8 compensable OD claims per 1000 employees); and Installation, Maintenance, and Repair Occupations (average of 1.9 compensable OD claims per 1000 employees).

The chapter's analyses of the accepted diagnoses for each claim point out two notable findings. First, there has been a downward trend in carpal tunnel syndrome (CTS) diagnoses. Second, there has been an upward trend in the number of accepted diagnoses per OD claimant. In an examination of all the accepted diagnoses for compensable OD claims (except hearing loss), the chapter shows a significant drop in the percentage of claims for which CTS is an accepted diagnosis—from 60.9 percent to 45.4 percent between 1997 and 2009. The allowable diagnoses data come mainly from state fund claims since 60 to 80 percent of the self-insured claims that were included in the data extract did not contain diagnosis data. For the state fund, the norm seems to be having three or more accepted diagnoses in the OD claim record. Furthermore, the percentage of claims with three or more diagnoses trended upward over time. The percentage of compensable state fund OD claims with three or more accepted diagnoses rose from 43.6 percent to 62.1 percent between 1997 and 2009.

The report of accident that is filed to initiate a claim has information about whether the claimant was treated previously for the diagnosed condition and whether the claimant had a pre-existing (related or unrelated) impairment. There has been an upward trend in the percentage of compensable OD claims that have either or both prior treatment for the diagnosis and a pre-existing impairment. Among the claims that have an indicator for a pre-existing impairment, around 10 percent of the claims are OD claims and the other 90 percent are injury claims. This is a slightly higher percentage than in the overall sample suggesting that having a pre-existing impairment is somewhat correlated with OD claims. Among the claims with the indicator for prior treatment, the percentage of claims that are OD claims is about 12 to 14 percent suggesting a slightly stronger correlation between having had prior treatment and having an OD claim.

In analyses of claims information by demographic characteristics, chapter seven shows that the incidence of claims for individuals aged 45 to 64 grew faster during the analysis period than did the share of the workforce in those age groups. In 1997, this age group accounted for 32.3 percent of the Washington work force and 35.4 percent of the compensable OD claims (except for hearing loss). By 2009, the age group's share of the work force increased to 40.4 percent, and its share of compensable OD claims rose to 54.2 percent. Notably, a similar disproportionate increase in compensable OD claims did *not* happen for individuals over age 64. In fact their share of compensable OD claims in 2009 had grown more slowly than their share of the work force.

The chapter ends with a description of the results of estimation of a multivariate model of claim denials. These estimates suggest that OD claims are less likely to be denied if the claimant has a prior accepted claim, has legal representation, is a female (except when the sample was limited to only those claims that had a neck pain diagnosis), or is older (except for the neck pain diagnosis sample). OD claims are also less likely to be denied if they have a CTS diagnosis or if they have multiple accepted diagnoses. Having a pre-existing impairment increases the likelihood of denial in the overall sample, but it did not have statistical significance in estimates that were made when the sample was limited to claims that had a CTS diagnosis and when the sample was limited to claims that had a neck pain diagnosis. Having prior treatment for the injury increased the likelihood of a denial in the neck pain sample, but it was insignificant in all other samples.

1.7 Conclusions

Finally, chapter 8 presents our conclusions. This report summarizes a study of occupational diseases within the workers' compensation system that has relied on several different analytical techniques. The evidence on global performance assessment from chapter 2 suggests little reason for concern. The Bureau of Labor Statistics Annual Survey of Occupational Injuries and Illnesses, the primary source for occupational injuries and illnesses in the United States, indicates that Washington has a higher incidence of injuries and illnesses than the majority of states. However, this does not result in correspondingly higher employer costs for workers' compensation because of employee participation in the funding of the system.

Comparing Washington to her neighbors Oregon and British Columbia indicates that the occupational disease experience in Washington is not extraordinary. While there are major differences in measures that make precise comparisons impossible, it seems that all three jurisdictions are in the same ball park when it comes to the incidence of time-loss occupational disease claims.

As noted above, chapter 3 traces the historical development of the law and court rulings to try to gain an understanding of the legislative intent, which presumably reflects the will of policy makers and stakeholders. Not surprisingly, that history is not linear; however it has effectively given substance to the wording ". . . arises naturally and proximately out of employment." While some may be uncomfortable with the ambiguity of that phrasing, there has been no major reinterpretation of it in the past 25 years.

In the course of documenting the adjudication of occupational disease claims, we interviewed several dozen knowledgeable individuals spanning virtually every stakeholder

perspective. While people with different perspectives brought forward various issues of concern during our face-to-face interviews in Washington, we generally did not find the evidence to justify those concerns in our analyses of trend data between 1997 and 2009. We should note that some of the issues of concern focused on L&I's internal processes for adjudicating claims. It was not within the purview of our study to conduct an observational analysis of that adjudication. However, we did examine claim acceptance and rejection rates over our analysis period, and we did not observe the increased rates of acceptance of OD claims that some individuals suggested was occurring. Furthermore, we reviewed the statutory definitions for occupational disease compensation in the other states with comparisons to Washington law and practice. This review uncovered no general consensus about the definition of occupational disease nor about the standards of proof to use in determining whether a diagnosed condition was employment-related.

Analysis of claims indicates that occupational disease claims are more expensive than traumatic injury claims, but are significantly less prevalent. Half the OD claims come from just five industry groups. However, a substantially larger proportion of occupational disease claims receive permanent total disability pensions. Roughly 4 to 6 percent of OD claims ultimately receive pensions compared to 2 to 3 percent of injury claims. It is not clear whether declines in pension awards since 2001 reflect a lower incidence of pensions or just the time needed for such claims to mature in the system. We compare self-insured results with State Fund pension outcomes and find that self-insured employers have considerably fewer pensions. However, we have serious concerns about the quality of data for self-insured employers and cannot assess the natural advantage enjoyed by the self-insured due to their size and resources.

The analyses of trends presented in chapter 7 show that the incidence of OD claims for older workers has grown faster than the growth in the workforce. This is especially true for workers in the 45 to 59 age range. It is not true for workers over 60, who accounted for 10.2 percent of the workforce in 2009, but who only had 8.6 percent of the compensable OD claims, excluding hearing loss. We have not identified the precise causes of the increased incidence of claims among older workers, but the report presents evidence that it is not an increased incidence of diseases of natural aging, and it is not because there has been an increased acceptance rate of claims with these diagnoses. We find no evidence of an increase in pre-existing conditions or diseases of aging among the occupational disease population in Washington.

We conclude with the observation that “we did not find glaring problems with the compensation of occupational diseases in the State of Washington.”

2 INTRODUCTION AND COMPARATIVE SETTING

2.1 The Challenge

This study was originated by the Washington Legislature in Engrossed House Bill 2123 (2011). Part 9 of the Act stated:

The department of labor and industries shall contract with an independent entity with research experience in workers' compensation issues to study occupational disease claims in the Washington workers' compensation system.... The study shall include, but not be limited to, an examination of the frequency and severity of occupational disease claims for state fund and self-insured employers; the impact of these claims on long-term disability and pension trends; the statutory definition of occupational disease and its interpretation and comparison to definitions in other states and jurisdictions; and comparison of the statute of limitations for filing occupational disease claims for Washington and other states and jurisdictions.

When defining the scope of work for the request for proposals (RFP), the Department of Labor and Industries (L&I) specifically added the following questions:

1. Whether diseases caused by natural aging or conditions outside the workplace are increasingly being accepted as occupational disease claims in Washington State.
2. Include in the report on frequency and severity an analysis of long and short term trends in the types of occupational diseases. Also include a review of rejected claims that were filed as occupational disease claims including an analysis of the reason for rejection.
3. As part of the jurisdictional comparison, we request a thorough review of the Washington compensability standard or test versus that used in other states. The review should include an accounting of the number of states using each of the various standards such as; "cause," "proximate cause," "major contributing cause," "significant cause," etc. We also request an investigation of which other states concern themselves with whether the worker was at particular risk because of their employment and/or occupation, and also whether they apply an "ordinary disease of life" exclusion clause. The role that pre-existing conditions play in determining the compensability of occupational disease claims in various states should also be explored. We are also interested in highlights of any recent changes that have taken place in other states with regard to these matters. In summary, we require a very detailed analysis of how occupational disease claims are handled in other jurisdictions given the various state laws and applicable court decisions and rulings currently in place.
4. Where feasible, as part of the jurisdictional comparison, examine and provide state comparisons on rates of litigation, penalties, sanctions and awards available to claimants for wrongfully denied claims, to include an analysis of whether rates of litigation and other disputes are influenced by the jurisdiction's standard or test as provided in 3 above.

The L&I RFP also enumerated topics that were "out-of-scope" for the study, such as pursuit of data not held by the department that might facilitate the study of occupational disease

claims. As an example, the department has minimal data on claims filed by workers employed by self-insured employers. Because the legislation specifically mentions that the frequency and severity of occupational disease claims for both state fund and self-insured employers will be studied, L&I stipulated that the Contractor will need to determine a method of conducting this study given the limited availability of the existing self-insured claims data held by the department.

2.2 Methods

The Upjohn Institute for Employment Research assembled a research team to tackle the issues listed above. They included principals Kevin Hollenbeck, Ph.D., Senior Economist and Vice-President of the Upjohn Institute, Peter S. Barth, Ph.D., Professor Emeritus at the University of Connecticut, H. Allan Hunt, Ph.D., Senior Economist Emeritus at the Upjohn Institute, and Ken Rosenman, M.D., Professor and Chief, Division of Occupational and Environmental Medicine at Michigan State University. The Upjohn Institute also provided administrative, technical, and clerical staff support sufficient to process the study within the allotted time schedule.

The project was carried out with the assistance of various resources and several different methods. First, the team surveyed and reviewed information available from L&I. Much of this information can be accessed online at <http://www.lni.wa.gov/lni.htm>. Other materials were made available to us by L&I personnel. Some of this material was conveyed during approximately 75 face-to-face interviews that were conducted by the team in February and March of 2012. Many individuals came to their appointments with specific materials they wanted to share; others provided them upon request following the interview. We are deeply indebted to the people who agreed to meet with us (listed in Appendix A), as they provided us with access to their many years of experience. These interviews also enabled us to cross-check our impressions and those of other sources against the experience of people who are truly “experts” on the L&I system.

In addition, we had full remote access to the Online Reference System (OLRS) maintained by L&I as a resource for their staff. This material was extremely valuable, especially for details on processing claims. We also used the LEXIS legal research system, especially for information on court decisions and the other workers’ compensation jurisdictions that provide the comparative perspective in this report. For a select few jurisdictions judged to be of “special interest,” we also contacted the administrative agency directly seeking data or additional understanding of particular procedures.

L&I provided massive data files containing details of workers’ compensation claims, which meant we were able to structure our own analysis, rather than depending upon L&I personnel. For purposes of conducting claim reviews, we also had secure, remote access to the Labor & Industry Industrial Insurance System (LINIIS), which is used for claims management at the agency.

In the chapters that follow, we will use the term “accepted claims” to refer to those claims that are received by L&I or self-insured employers (or third party administrators) and are not denied. Claimants receive or will receive time-loss compensation, permanent partial compensation, fatality compensation, pension payments, loss of earning power compensation,

and/or the claims will have associated medical aid payments. We use the term “compensable claims” to refer to claims that receive time-loss compensation, permanent partial compensation, fatality compensation, pension payments, or loss of earning power payments, but exclude those that receive medical aid payments only.

We accepted and used L&I designations of occupational disease claims¹⁸. These designations are based initially upon the Report of Accident and the diagnoses provided by the attending physician who signs the form. Of course, subsequent developments may change that designation. Further, our empirical work excludes claims for hearing loss. It was determined by L&I that including hearing loss claims would tend to confuse the comparisons we are trying to make.

Most of our empirical work uses annual workers’ compensation data from 1997 through 2009. The choice of 1997 is imposed by the data retention and archiving practices of L&I, which prevented access to data prior to that year. The 2009 termination date was determined by our desire to allow occupational disease claims time to develop within the system. For most time series there is a rapid fall-off in the number of occupational disease claims after 2009. This reflects the fact that many of these claims have not had sufficient time to mature and are not yet recognized as legitimate occupational disease claims. We feel it would be misleading to report data that are not yet final and have therefore closed our period of observation with data from 2009.

2.3 Comparative Setting

In an attempt to better understand the social, economic, and political environment of the workers’ compensation system in Washington, we conducted a search of relevant national data sources. We will present data collected from: 1) Occupational Safety and Health Administration (OSHA) logs made available by the U.S. Bureau of Labor Statistics (BLS); 2) a national survey of workers’ compensation paid benefits and costs conducted by the National Academy of Social Insurance (NASI); and 3) the National Council on Compensation Insurance (NCCI). We also present a comparison of trends in compensable claims between Washington and its neighbors Oregon and British Columbia. We believe that a summary review of these comparative data provides an appropriate perspective on the workers’ compensation system in Washington. This is especially important during a period of declining incidence of injuries and illnesses to maintain our perspective on what is average or normal during this particular period.

Comparing Washington experience to that in other states is difficult and dangerous. Concepts that sound similar may not be measured in the same way. Specific system characteristics affect outcomes in ways that cannot be easily quantified. Nevertheless there is an acute interest in assessing the number of injuries and the level of claims activity in various jurisdictions. This represents our attempt to satisfy that interest.

¹⁸ The classification of specific claims as occupational disease rather than as an injury (and any change in that classification) occurs during the adjudication process, and as such is left to the agency staff. We recognize that the distinction between an injury and occupational disease for musculoskeletal conditions such as low back, neck, and upper extremities as well as cardio-vascular incidents can be problematic. However, including all such conditions as occupational diseases even when they were classified as injuries by the agency would mischaracterize any findings on occupational disease as defined as L&I and be inconsistent with existing L&I statistics.

2.3.1 OSHA Log Data

We begin with OSHA log data on occupational injury and illness because the nature and number of such events directly underlie the claims to the workers' compensation systems.¹⁹ These data are collected by the states and reported to BLS with consistent definitions and procedures. However, it is clear that employers who report these data on the OSHA logs do not use consistent definitions or procedures; so their comparability across employers is debatable. But when aggregated to the state level, the OSHA log data provide a rough picture of how risky the state environment is for workplace injury and disease.

While there have been changes in the data series over time, we present the statistics for Washington and the U.S. average for private industry for roughly the same time as our observation period, 1997 and 2010.²⁰ Table 2.1 shows that Washington has significantly higher OSHA reported occupational injuries and illness rates than the average state. For "cases with days away from work," many of which will become workers' compensation claims, Washington is about 50 percent higher than the average U.S. incidence.²¹

Table 2.1 OSHA Log Data on Occupational Injury and Illness Rates per 100 FTEs

	Washington		Ratio WA/US	U.S.		Ratio WA/US
	1997	2010		1997	2010	
Total recordable cases	9.8	4.8	1.38	7.1	3.5	1.37
	-51.0%			-50.7%		
Cases with days away from work	3.2	1.6	1.52	2.1	1.1	1.46
	-50.0%			-47.6%		
Cases with transfers and restrictions	0.9	0.8	0.75	1.2	0.8	1.00
	-11.1%			-33.3%		

NOTE: Accessed at <http://www.bls.gov/iif/oshwc/osh/os> on 7/31/2012.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor.

The table also shows that the incidence of OSHA "recordable cases" is over one-third higher in Washington than in the typical state. Since this difference is less than for "cases with days away from work" this means that a higher percentage of OSHA recordables in Washington do involve days away from work, an indicator of more serious disability. This is also confirmed in the incidence of reported "cases with transfers and restrictions," where Washington has been at or under the national average. Note also that the 3-day waiting period for time-loss benefits in

¹⁹ But see Rosenman, et al., "How Much Work-Related Injury and Illness is Missed by the Current National Surveillance System?" *Journal of Occupational and Environmental Medicine* 2006: 48:357-365 and Fan, et al., "Underreporting of Work-Related Injury or Illness to Workers' Compensation: Individual and Industry Factors." *Journal of Occupational and Environmental Medicine* 2006: 48: 914-922.

²⁰ We selected data for 2010 in this instance because they are the latest available and we do not believe that OSHA log data are subject to the same "claim development" issues that workers' compensation data are. We used private industry employment because national average figures are available for that sector.

²¹ But note that in Washington, the agency responsible for compiling the OSHA data is also responsible for workers' compensation data. Thus, it is likely that there is less undercount in BLS numbers in Washington than in other states.

Washington is lower than the overwhelming majority of other states that set theirs at 7 days. Nevertheless, it does appear that Washington’s incidence was declining slightly more rapidly than average over the period, resulting in a small relative gain from 1.52 times the national average to 1.46.

These figures seem to indicate that Washington has a greater occupational injury and illness burden than in the average state. More injuries and illnesses with days away from work might be expected to lead to a higher incidence of workers’ compensation claims in Washington as well.²² In 2010, only Maine, Montana, and Vermont had a higher OSHA “recordable case” incidence, and only Alaska, Hawaii, Montana, Vermont, and West Virginia had a higher incidence of “cases with days away from work.” When a higher incidence of work-related injuries and illnesses is combined with a shorter waiting period for time-loss benefits, we would expect the cost of workers’ compensation in Washington to be higher than average.

2.3.2 NASI Benefit Cost Data

The National Academy of Social Insurance has published a national data series on workers’ compensation benefits paid and employer costs since 1997. Table 10 in their most recent publication shows the recent trend in total workers’ compensation benefits paid per \$100 of covered wages in all states from 2006 to 2010 (the most recent data available).²³ While these data are not adequate for direct interstate comparisons, it is revealing to compare Washington workers’ compensation benefits to the U.S. average.

Table 2.2 shows that workers’ compensation benefits paid in Washington relative to wages are substantially higher than the national average. The table shows workers’ compensation benefit payments (both medical and wage loss benefits) in Washington rising from \$1.63 per \$100 of wages to \$1.80 over the 2006 to 2010 period. This means the relative benefit level increased from 1.70 times the national average to 1.88 times the national average over the 5-year

Table 2.2 NASI Workers’ Compensation Benefits per \$100 of Covered Wages

	Washington		U.S. ^a		Ratio WA/US
	\$WC/\$100 wage	Own Index	\$WC/\$100 wage	Own Index	
2006	1.63	1.00	0.96	1.00	1.70
2007	1.57	0.96	0.92	0.96	1.71
2008	1.69	1.04	0.94	0.98	1.80
2009	1.82	1.12	0.99	1.03	1.84
2010	1.80	1.10	0.96	1.00	1.88

NOTE: ^aFor non-federal employment.

SOURCE: National Academy of Social Insurance, Table 10, pp. 29–30.

period. So, workers’ compensation benefits paid are higher in Washington. This results both from the higher incidence of injuries and diseases (as indicated by the OSHA log data) and the benefit structure and operation of the Washington workers’ compensation system. In particular, it

²² Empirical evidence does not clearly support this hypothesis however. See Rosenman, et al. (2006), Boden and Ozonoff (2008), Ruser (2008), Boden, et al. (2010), and Oleinick and Zaidman (2010).

²³ Sengupta et al. (2012).

reflects the shorter waiting period (3 days versus 7 days in most other states), but not the fact that workers pay approximately half of the cost of medical benefits in Washington through a payroll tax. This funding arrangement is unique to Washington.

This year NASI has published comparable state figures for employer costs for workers' compensation coverage for the first time. Table 2.3 indicates that employer cost for workers' compensation insurance was dropping in Washington; from \$1.63 per \$100 in wages to \$1.51 over the 2006 to 2010 period. This is a decline of 7.4 percent in employer costs. However, the table also indicates that the relative cost for workers' compensation insurance in Washington rose from 106 percent of the U.S. average to 127 percent over the period because costs in other jurisdictions were declining more rapidly.

Table 2.3 NASI Workers' Compensation Employer Costs per \$100 of Covered Wages

	Washington		U.S.		Ratio WA/US
	\$WC/\$100 wage	Own Index	\$WC/\$100 wage	Own Index	
2006	1.63	1.00	1.54	1.00	1.06
2007	1.34	0.822	1.42	0.92	0.94
2008	1.58	0.969	1.30	0.84	1.22
2009	1.49	0.914	1.26	0.82	1.18
2010	1.51	0.926	1.19	0.77	1.27

NOTE: Employer costs for WC per \$100 of payroll.

SOURCE: National Academy of Social Insurance, Table 12, p. 34.

The conclusion from this table would be that paid workers' compensation benefits are higher in Washington, and employer costs are higher than average and are declining more slowly than in other states. However, the impact of Washington workers paying one-half of medical and inflation protection costs through a payroll tax is not figured into these numbers.²⁴ In Washington in 2010, workers paid twenty-three percent of the entire cost of workers' compensation. Reducing the employer cost number by this percentage would bring the cost to Washington's employers in 2010 to just above the national average (27 percent minus 23 percent).

This general range of results is confirmed by the Oregon Premium Ranking Study, which for 2010 found Washington to be ranked 26th among the 51 jurisdictions with estimated costs thereby defining the median cost level for the 50 largest industry groups in Oregon.²⁵ However, the Oregon study also does not subtract the worker contribution, so this probably overestimates employer costs for workers' compensation in Washington.

²⁴ Personal correspondence from Ishita Sengupta of NASI on August 28, 2012.

²⁵ We are aware of the many limitations of the Oregon Premium Ranking Study. Actual cost to an employer may be adjusted by the employer's experience rating, premium discount, retrospective rating, and dividends. It is especially difficult to make comparisons between states with private insurance and exclusive state fund states. However, this study is widely cited as one of the leading sources for comparative data on workers' compensation costs and it has the advantage of being a consistent and accessible yardstick. See http://www.cbs.state.or.us/imd/rasums/2082/09web/09_2082.pdf

Another perspective reveals a more concerning trend. According to the Oregon study, Washington premiums weighted by Oregon employment rose from 12 percent below the national average in 2008 to 12 percent above average in 2012. This resulted in Washington rising dramatically from 38th to 13th most expensive workers' compensation jurisdiction in the Oregon study. Because the Oregon study uses premium rates that include worker contributions, the employer cost estimates are likely higher than the actual fact. But the recent rise in premiums relative to the national average should be carefully monitored by policymakers in Washington.

2.3.3 Comparison with NCCI States Data

The number of accepted workers' compensation claims (both State Fund and self-insured) has been dropping in Washington since 2006, even before the "great recession" began. However, the number of occupational disease claims, while peaking slightly later in 2007 has fallen more slowly. This is shown in Table 2.4, which reports the employment level and number of accepted compensable injury and occupational disease claims in Washington by year. The table also shows an index number for the time series, which facilitates comparisons between the rates of change over time in different series.

Table 2.4 Washington Total Accepted Workers' Compensation Claims, 2005–2009

	Non-farm Employment		Accepted Injury Claims		Accepted OD Claims	
	Number (000s)	Index	Number	Index	Number	Index
2005	2,777	1.00	168,620	1.00	6,204	1.00
2006	2,859	1.03	170,180	1.01	5,972	0.96
2007	2,934	1.06	166,239	0.99	6,036	0.97
2008	2,958	1.06	154,799	0.92	5,752	0.93
2009	2,822	1.02	130,696	0.78	5,420	0.87

NOTE: We use the term "accepted" to refer to the total of all time-loss and medical aid claims.
SOURCE: Washington Department of Labor and Industry and Washington Employment Security Department.

We stop this series at 2009 because that is the latest year available from the NCCI. It also reflects the length of time it can take for an occupational disease claim to be accepted and reported, generally referred to as "claim development." Comparisons using more recent data confuse the rate of change with the rate of acceptance of claims. The number of accepted injury claims declined by 22.5 percent from 2005 to 2009. The number of occupational disease claims accepted in Washington declined by 12.6 percent over the same period, significantly more slowly.

Because of differences in definitions, claim processing procedures, and differences in statistical reporting regimes, it is extremely challenging to make direct comparisons between the experience in different workers' compensation jurisdictions.²⁶ However, using an index number approach means that we are comparing the rates of change in numbers that are internally comparable through time. If one state has a 10 percent growth rate in occupational disease claims

²⁶ See the work of the Workers Compensation Research Institute (WCRI) for a demonstration of how such comparisons can be made without distortion. In their CompScope series, they control for differences between jurisdictions in waiting period, wage levels, industry mix, injury severity and insurer type. Suffice it to say that elaborate statistical controls and consistency checks are required. See www.wcrinet.org for more details.

and another has 20 percent growth, we know that things are changing more rapidly in the second state; even if we do not know if they are measuring exactly the same thing when they count occupational disease claims.

We have examined aggregate workers' compensation claims data from 36 states for the period 2005 to 2009. These 36 jurisdictions report their workers' compensation claims data to the National Council on Compensation Insurance (NCCI) for purposes of insurance rate making. The NCCI uses the claims data to develop actuarial estimates of the premium level required for workers' compensation insurance in the different jurisdictions.²⁷

This period has seen declining injury and disease incidence, and declining employment toward the end of the period. Over these five years, no states experienced an increase in the number of workers' compensation claims due to traumatic injuries; all were declining. Only five jurisdictions had less than 15 percent reductions in the number of claims (LA, DC, IA, MD, NE) while three states had more than 33 percent reductions (AZ, RI, NV). That leaves 28 jurisdictions that experienced between 15 and 33 percent declines in the number of claims from traumatic injuries. The average (unweighted) state experienced a drop of 21.7 percent in the number of traumatic injury claims between 2005 and 2009. This is just about the same rate of decline (22.5 percent) as experienced in the State of Washington.

The number of occupational disease claims declined in all but three states during the same period (MD, SD, WV). Declines of at least 40 percent were experienced in seven jurisdictions (VT, NV, IN, DC, AL, GA, MO). The average (unweighted) decline in the number of occupational disease claims was 24.9 percent among these 36 jurisdictions compared to 12.6 percent in Washington; only half as rapid. Unlike in Washington, occupational disease claims were declining more rapidly than traumatic injury claims from 2005 to 2009 in most jurisdictions. There were only nine other states where the number of occupational disease claims declined less rapidly than traumatic injury claims (AZ, FL, HI, ME, MD, NC, RI, SD, UT) as they did in the State of Washington.

So Washington experienced a decline in the number of workers' compensation claims involving traumatic injury that was similar to that in 36 other jurisdictions, but occupational disease claims were dropping only about half as fast as average. This translates to an increase in the ratio of occupational disease to traumatic claims in the State of Washington in contrast to all but nine states where the ratio decreased.

2.4 Comparison with Oregon and British Columbia

It is a truism that one cannot directly compare statistics from different workers' compensation systems. But nevertheless the desire by policymakers to do so is overwhelming. In the U.S., we do not have a central database on workers' compensation systems using comparable definitions and methods as they do in Canada (see www.awcbc.org). Only the NCCI maintains something like a national workers' compensation database, and as we have just seen it does not cover all states. In particular, Washington is not included because NCCI does not provide actuarial services to the Washington system.

²⁷ See www.ncci.com

However, we believe that something can be learned by comparing Washington to its neighbors, even though we are necessarily painting with a broad brush. Because of their location and their employment pattern similarities, we have selected Oregon and British Columbia as neighbor jurisdictions for comparison with Washington. They use different definitions of occupational disease and have different benefits and different adjudication procedures. However, using the index number technique developed above, we feel that a comparison of trends over time can still be revealing, even if the actual numbers are not directly comparable. In each case we are looking at claims that were accepted and that received wage-loss payments.

Table 2.5 reports the Washington compensable claim trend data. It shows that the number of compensable occupational disease claims rose 18% in the late 1990's, but then was relatively constant from 2000 to 2007. However as the number of traumatic injury claims declined, the proportion of occupational disease claims rose from 4.5 percent to 6.3 percent.

Table 2.5 Washington Total Compensable Workers' Compensation Claims, by Year

Year	Total Compensable Claims				
	Injury	Index number	OD	Index number	OD %
1997	53,113	1.00	2,519	1.00	4.5
1998	52,950	1.00	2,589	1.03	4.7
1999	52,192	0.98	2,876	1.14	5.2
2000	50,592	0.95	2,983	1.18	5.6
2001	47,365	0.89	2,787	1.11	5.6
2002	45,097	0.85	2,799	1.11	5.8
2003	43,478	0.82	2,897	1.15	6.2
2004	43,360	0.82	2,879	1.14	6.2
2005	43,418	0.82	2,946	1.17	6.4
2006	44,527	0.84	2,829	1.12	6.0
2007	44,244	0.83	2,879	1.14	6.1
2008	41,580	0.78	2,716	1.08	6.1
2009	36,378	0.68	2,462	0.98	6.3

NOTE: The term "compensable" refers only to time-loss claims and excludes "medical only" claims.

SOURCE: Authors' tabulations of claims data supplied by L&I. Note that hearing loss claims are omitted.

Table 2.6 shows the Oregon trend from 1997 to 2009 in the total of accepted disabling claims and accepted disabling occupational disease claims. Overall, the number of accepted disabling claims in Oregon declined by 30 percent over this period as compared to a 32 percent decline in Washington. As in Washington, the number of accepted claims declined rapidly in Oregon with the recession, beginning in 2008. However, total accepted claims in Oregon had also declined in the early years in contrast to Washington.

Accepted occupational disease claims first declined from 1997 to 1999, but then rose steadily (except for 2004) until 2006. This contrasts with the falling trend in all accepted disabling claims over the same period. The result of these two trends in Oregon was a rising rate of OD claims as a percent of all accepted disabling claims until 2006. Thereafter, the number of traumatic injury claims accepted declined less rapidly than OD claims, and so the proportion of OD claims fell. The numbers in Table 2.6 suggest that the incidence of OD claims is likely somewhat higher than in Washington after adjustment for differences in definitions.

Table 2.6 Oregon Accepted Disabling Workers' Compensation Claims

	Accepted disabling claims	Index number	Accepted disabling OD claims	Index number	% OD claims
1997	26,918	1.00	3,591	1.00	11.8
1998	26,032	0.97	3,329	0.93	11.3
1999	24,857	0.92	2,884	0.80	10.4
2000	24,405	0.91	3,064	0.85	11.2
2001	23,850	0.89	3,250	0.90	12.0
2002	22,126	0.82	3,218	0.90	12.7
2003	21,493	0.80	3,341	0.93	13.5
2004	20,004	0.74	3,164	0.88	13.7
2005	21,020	0.78	3,447	0.96	14.1
2006	21,445	0.80	3,681	1.02	14.7
2007	22,449	0.83	3,660	1.02	14.0
2008	21,734	0.81	3,378	0.94	13.5
2009	18,874	0.70	2,996	0.83	13.7

NOTE: Oregon uses the term “accepted disabling claims” to mean those involving time-loss, excluding medical only claims.

SOURCE: “2010 Report on the Oregon Workers’ Compensation System, Tenth Edition,” Oregon Department of Consumer and Business Services, December 2010, p. 22.

Table 2.7 shows the total number of accepted compensable claims first paid and the number of accepted compensable occupational disease claims first paid in British Columbia for each year from 1997 to 2009. The total number of claims first paid dropped from 1997 through 2003, but then increased through 2007. As in the other jurisdictions, claims dropped rapidly when the recession hit in 2008 and beyond.

The number of compensable occupational disease claims first paid peaked in 1999 and then declined through 2004, resulting in a net decrease of 24 percent. After a 9 percent increase between 2004 and 2006, OD claims declined 35 percent through 2009 to a level just slightly over half the level of 1997. The table shows that the combination of the two trends resulted in the proportion of all accepted compensable claims that were occupational disease claims declining for most of the period, reaching a level of 5 to 6 percent in the later years.

Table 2.7 British Columbia Accepted Compensable Workers' Compensation Claims

	Total first paid	Index number	OD first paid	Index number	% OD
1997	75,124	1.00	4,983	1.00	7.1
1998	72,795	0.97	5,527	1.11	8.2
1999	71,343	0.95	5,660	1.14	8.6
2000	72,314	0.96	5,469	1.10	8.2
2001	68,334	0.91	4,981	1.00	7.9
2002	61,529	0.82	4,403	0.88	7.7
2003	58,834	0.78	4,034	0.81	7.4
2004	60,160	0.80	3,767	0.76	6.7
2005	62,171	0.83	3,795	0.76	6.5
2006	63,610	0.85	4,106	0.82	6.9
2007	66,016	0.88	3,857	0.77	6.2
2008	64,212	0.86	3,406	0.68	5.6
2009	51,293	0.68	2,663	0.53	5.5

NOTE: WorkSafeBC uses “accepted compensable” to refer to claims qualifying for time-loss benefits, excluding medical only claims.

SOURCE: http://www.worksafebc.com/publications/reports/statistics_reports/occupational_disease/default.asp accessed on July 31, 2012.

So the conclusion is that workers' compensation traumatic injury claims were declining in all three of these jurisdictions over the period 1997 to 2009, especially as employment declined with the great recession beginning in 2008. This is consistent with the secular trend in work-related injuries revealed by other statistical series, such as OSHA log data. But the number of occupational disease claims showed more diverse trends among these three jurisdictions. OD claims declined in British Columbia through much of the period, reaching a level in 2009 approximately 47 percent lower than in 1997. Oregon OD claims were more stable through most of the period, but fell 18 percent after 2007. By contrast, occupational disease claims in Washington were relatively level across the period, until the decline in 2008. The result is that occupational disease claims have been a rising proportion of all compensable claims in Washington while their proportion declined slightly in Oregon and substantially in British Columbia.

3 THE DEVELOPMENT OF OCCUPATIONAL DISEASE COVERAGE IN THE WASHINGTON INDUSTRIAL INSURANCE LAW²⁸

Washington's Industrial Insurance Act, Chapter 74 Sec 3, goes back to 1911. There was no provision in the original law to provide protection under it for occupational disease. The statute made it clear that its intent was not to give coverage for occupational disease. Section 7675 defined "injury" as follows:

The words 'injury' or 'injured' as used in this act refer only to an injury resulting from some fortuitous event as distinguished from the contraction of disease.

This was understood by the courts to leave the issue of occupational disease to alternative remedies, if any. As much as 15 years later the courts applied the Industrial Insurance Act in such a way as to exclude occupational disease.²⁹ Workers who were injured or died due to occupational disease could choose to use the common law for relief. As an example, Andrew Depre had been employed for almost 2 years by Pacific Coast Forge Company and in the course of that time, had been exposed to large quantities of sulphuric and muriatic acids.³⁰ Depre contended that the vapors from these substances weakened his body's resistance and this resulted in his contracting disabling tuberculosis. Depre argued that Pacific Forge was negligent in not providing adequate ventilation in the room in which he worked. The employer contended that workers' compensation was the appropriate remedy, if any, for Depre and that the exclusive remedy barred the action at law.

The Supreme Court noted that the contraction of tuberculosis through gases and vapors in an employee's working place had never been recognized by the Department of Labor and Industries as a fortuitous event for which compensation could be given under the industrial insurance act. Though Pacific Forge sought to try the case under workers' compensation rather than the potentially costlier common law, the Court observed:

Respondent, in seeking to uphold the judgment of the trial court, insists that the workmen's compensation act is a complete defense to the action, and that appellant, by its terms, is entitled to compensation from the state. The workmen's compensation act has been in existence some sixteen years, and, in all the numerous cases brought to this court, this is the first time it has been contended that a disability such as appellant suffered came under its provisions.

It is also a matter of common knowledge, of which we will take judicial notice, that the commission empowered with the duty of administering the act has never recognized such cases as within the purview of the legislative enactment. There has been no change in the provisions as to such cases during that time, and it

²⁸ This chapter is an abbreviated version of the historical development of the Industrial Insurance Law provided in the first deliverable report for this contract.

²⁹ Sandahl v. The Department of Labor and Industries, 170 Wash. 380; 16 P.2d 623.

³⁰ Depre v. Pacific Coast Forge Company 145 Wash. 263; 259 P. 720; 1927 Wash. LEXIS 881.

must therefore be logically assumed that its administration has been in accord with the intent of that body.

These recited facts indicate very strongly that the present action is not one that comes within the purview of the workmen's compensation act.

The statute was amended in 1927 and a new definition of injury was placed into the statute as follows;

*A sudden and tangible happening of a traumatic nature, producing an immediate or prompt result, and occurring from without, and such physical condition as results therefrom.*³¹

The first case to test the legislature's new definitions of injury and the scope of the statute emerged soon thereafter. Three women, employed by the Seattle Can Company during the spring and early summer of 1924, were affected with what was known as benzol poisoning.³² One of the women died from the condition. Claims for industrial insurance benefits to the Department of Labor and Industry were rejected on the grounds that the conditions complained of were not due to any fortuitous event, but were in the nature of an occupational disease. Along with the two disabled women and the representative of the deceased worker, the employer also appealed the decision to the Superior Court, which found for the appellants.³³ The court reversed the action of the Department and remanded the cases for classification and awards.

The Department appealed the Superior Court's decision and the Supreme Court was asked to decide whether the cases involved injuries and fatality by accident.³⁴ The words 'injury' or 'injured' as used in the act referred only to an injury resulting from a fortuitous event as distinguished from the contraction of disease. If the workers did contract an occupational disease, as distinguished from an injury caused by a fortuitous event, they would not be entitled to relief under the act. The Department argued:

The Seattle Can Company operated a can manufacturing company and had paid to the state treasury for coverage as an extrahazardous industry under the state's Industrial Insurance law. An alteration in the building where the women worked undermined the successful venting of the benzol. The room they worked in had been adequately vented of benzol gas for several years but the addition to the building sealed off the outlet for the gas and slowly led to the ingestion of a harmful substance that gradually sickened the women. The Department, relying in part on an earlier case,³⁵ found the Seattle Can Company women to be victims of an occupational disease.

³¹ Ch 310 2.

³² Benzol is more commonly known today as "benzene."

³³ That the employer joined with the workers and the representative of the deceased worker might have stemmed from compassion. Another possibility is that the successful claims under the industrial insurance law would enable the employer to take advantage of the exclusive remedy and spare it from an action at law based on negligence.

³⁴ Seattle Can Co. v. Department of Labor & Indus., 147 Wash. 303, 265 P. 739 (1928).

³⁵ Depre v. Pacific Coast Forge Co., 145 Wash. 263, 259 P. 720.

However, the Judges wrote:

As we understand it, an occupational disease is one which is due wholly to causes and conditions which are normal and constantly present and characteristic of the particular occupation; that is, those things which science and industry have not yet learned how to eliminate. Every worker in every plant of the same industry is alike constantly exposed to the danger of contracting a particular occupational disease. No such condition is shown here. No poisoning took place in this particular plant until the employer ignorantly or negligently shut off the ventilation. None has occurred in like plants situated elsewhere. And when the trouble was located and corrected, no more poisoning took place in this plant. Hence we are forced to hold that the injuries have resulted from a fortuitous event.

In amendments to the law in 1937, the legislature included a list of 21 conditions and causes that were to be covered for workers' compensation as occupational diseases.³⁶ It should be noted that such lists or schedules were commonly used both among the states and in other countries. This approach reflected a perceived need to provide protection to workers and their employers who developed such diseases while allowing them to avoid having to use the common law in cases of disabling or fatal conditions that arose out of employment.

The Polson Logging decision³⁷ illustrates the Supreme Court's view of occupational disease in 1938:

As we understand it, an occupational disease is one which is due wholly to causes and conditions which are normal and constantly present and characteristic of the particular occupation; that is, those things which science and industry have not yet learned how to eliminate. Every worker in every plant of the same industry is alike constantly exposed to the danger of contracting a particular occupational disease.

From the foregoing definition, it is clear that before any disease may be classified in a legal sense as an occupational disease, it must be a disease, or diseased condition, which is peculiar to a given occupation and brought about by exposure to certain harmful conditions which are constantly present, and to which all workmen in the occupation are continually exposed.

A condition of illness caused by a local or temporary condition in the plant of the employer, or a condition due to accidental injury, or a condition brought about by conditions to which all laborers, regardless of the nature of their occupation, are exposed, cannot be classed as an occupational disease.

However, it was plain that many diseases, including some that were listed in statutes, would also arise from non-work exposures. It was also evident that the workers' compensation

³⁶ Laws of 1937, ch. 212, § 1.

³⁷ Polson Logging Company v. E. Pat Kelley, Director, Department of Labor & Industries, et. al. , 195 Wash. 167; 80 P.2d 412; 1938 Wash. LEXIS 391 (1938).

system could not sustain economically claims for all the myriad diseases of unknown cause or origin. To meet both the need for coverage and the financial limits of the system, an approach emerged to list certain conditions and, in some instances, their causes or likely sources of exposure, creating (customarily rebuttable) presumptions that they were work caused. While these lists became common, the conditions shown and the degree of specificity, either with regard to the condition or their sources, varied from jurisdiction to jurisdiction.

In 1941, the legislature did amend the statute again and provided, for the first time, a definition of occupational disease.³⁸ It also eliminated the schedule of accepted occupational diseases. Workers' compensation was thereafter to cover "*such diseases or infection as arises naturally and proximately out of extra-hazardous employment.*"³⁹ The definition from the 1941 statute is almost the same one as found today in RCW 51.08.140.⁴⁰

After 1941, employers and others were faced with essentially two separate sets of guidance on what constituted the presence or absence of occupational disease. The legislature set out one in the 1941 statute with its definition employing the "arises naturally and proximately out of the..." language while the Supreme Court set out what it considered not to be an occupational disease in the Polson decision. Clearly, some guidance would be helpful to all parties concerned with the matter. Several opportunities came up for the Supreme Court to step in and clarify the situation. Three separate cases came to the court over the next few years but in each one, before the court could consider the underlying issue of occupational disease, the lack of adequate evidence presented by the claimants to show that their health was affected in any way by the conditions of their workplaces led to dismissals.⁴¹

The court had the opportunity to put its stamp on the occupational disease law in 1949 in *Simpson Logging Co. v. Department of Labor & Industries*.⁴² In April 1946, the Department awarded benefits to George Burtch, an employee of Simpson Logging Co. Burtch had been in Simpson's employ since June 1942 and missed only 2 days of work until February 1946, when he contracted disabling asthma. In December 1945, his work station was moved to another area of the plant where he was forced to endure dust, smoke, and fumes. Shortly thereafter he was diagnosed with asthma by a local physician. The Department of Labor & Industries accepted the claim as did the Grays Harbor Superior Court, and in both instances the employer appealed.

The appeal challenged the facts as found by the Department, and it also asserted that a workman disabled by asthma that has arisen naturally and proximately out of his extra-hazardous employment is not entitled to compensation under the provisions of the existing (1941) statute. On the first matter, the court found nothing to reject the facts as determined at earlier levels of adjudication. On the second and key question, Simpson argued that asthma is an allergy or

³⁸ Laws of 1941, ch. 235 §1.

³⁹ Laws of 1941, chapter 235, section 1.

⁴⁰ At that time only injuries and occupational illnesses in extra hazardous employment were covered under the statute. The references to extra-hazardous employment were dropped from the statute in 1959. Coverage today is very broad and is no longer limited to hazardous or extra hazardous employments.

⁴¹ *St. Paul & Tacoma Lumber Co. v. Department of Labor & Industries*, 19 Wn.2d 639, 144 P.2d 250 (1943); *Romeo v. Department of Labor & Industries*, 19 Wn. 2d 289, 142 P.2d 392 (1943); *Rambeau v. Department of Labor & Industries*, 24 Wn. 2d 44, 163 P. 2d 133.

⁴² *Simpson Logging Co. v. Department of Labor & Industries*, 32 Wn.2d 472; 202 P.2d 448.

personal sensitivity to specific substances afflicting mankind generally. It is not peculiar to the plywood industry, and it affects both workers and others alike. As such it ought not to be classified as an occupational disease. The court said that the test of an occupational disease as applied by the Washington court is in accord with that found in other states holding that

...regardless of the statutory provisions of occupational disease legislation, an occupational disease is one contracted in the usual and ordinary course of events, which, from common experience, is known to be incident to a particular employment or which is normally peculiar to and gradually caused by an occupation, or which is due wholly to causes and condition which are normal and constantly present and characteristic of a particular occupation.

In this case, it was not necessary to turn this claim into an injury by accident as in Seattle Can. The legislature had remedied that by enacting laws to cover occupational disease. The court ruled that an occupational disease was what the Washington State legislature said that it was:

The intent of the legislature must be drawn from the language used in the present statute. Decisions interpreting dissimilar statutes or the common law can be of little assistance to us. There is nothing in the language of the present statute, defining occupational disease as 'occupational disease' means such disease or infection as arises naturally and proximately out of extrahazardous employment, that would warrant reading into it the tests of the Seattle Can Co. case. The legislature is presumed to have been familiar with the meaning of "proximate cause" as used by the courts, and that being so, when they defined as an occupational disease those diseases or infections as arise naturally and proximately out of extrahazardous employment, it would follow that they meant that the condition of the extrahazardous employment must be the proximate cause of the disease for which claim for compensation is made, and that the cause must be proximate in the sense that there existed no intervening independent and sufficient cause for the disease, so that the disease would not have been contracted but for the condition existing in the extrahazardous employment.

Under the present act, no disease can be held not to be an occupational disease as a matter of law, where it has been proved that the conditions of the extrahazardous employment in which the claimant was employed naturally and proximately produced the disease, and that but for the exposure to such conditions the disease would not have been contracted. [Underlining added here.]

Ten years after Polson, the Supreme Court accepted and faced the next major test of the meaning of the occupational disease law.⁴³ Vernon Favor was an employee of the state Department of Agriculture. While driving in his car, he suffered a heart attack. Favor's physician testified that working under the emotional stress and strain that Favor reported probably led to a deterioration of his cardiovascular system, and as such, the employment could have accounted for his heart attack.

⁴³ Favor v. the Department of Labor & Industries, 53 Wn.2d 698; 336 P.2d 382; 1959 Wash. LEXIS 326.

Both the Department of Labor & Industries and the Board of Industrial Insurance Appeals denied time loss and medical benefits for Favor, but the Superior Court of Asotin County found in his favor on appeal. The Supreme Court observed that some previous heart attack cases had been accepted for workers' compensation, but only under the "unusual exertion rule" that did not apply here. Those cases were decided as injuries by accident and not as an occupational disease. In Favor's case, there was no way to construe this condition as an injury by accident. There had been no accident or special strain on Favor just preceding his heart attack. Clearly, if the Court had found in favor of the claimant with the sole attribution for his condition being his subjective perception that he worked under stress, there would be a huge enlargement of the workers' compensation system for future applicants to enter. The resulting economic impact on employers in Washington could be substantial to say the least.

We have heretofore pointed out that our workmen's compensation act was not intended to provide workmen with life, health, or accident insurance at the expense of the industry in which they are employed.

To accept the claim for an occupational disease, the court insisted among other things on proof based upon objective evidence:

It seems obvious that, if men in all employments suffer the same disease as that of the claimant, it does not meet the proximate cause requirement of the statute; nor does the fact that the claimant worried about his work distinguish the case. Persons in all employments, and in all activities are exposed to the emotional stress and strain of anxiety and worry, and it cannot be said to have arisen naturally and proximately from the claimant's employment.

Overturning the appeal and in seeking to explain legislative intent of the "proximate cause" term, the Court concluded that:

...it would follow that they meant that the condition of the extrahazardous employment must be the proximate cause of the disease for which claim for compensation is made, and that the cause must be proximate in the sense that there existed no intervening independent and sufficient cause for the disease, so that the disease would not have been contracted but for the condition existing in the extrahazardous employment. [Underlining added here.]

The key concept here is the "but for" standard, that is, but for the employment would the disabling disease result? The "but for" standard applies to proximate cause, which itself applies to both injuries and diseases. It did not arise first in the Favor case. It had been used previously and can be found, for example, cited in the Simpson Logging decision (supra).

For almost a quarter of a century following the Favor decision, the courts dealt only with relatively minor issues pertaining to occupational disease. Then the Court of Appeals, Division 2, was confronted with the case of an employee who suffered a serious mental breakdown that was caused allegedly by her employment.⁴⁴ Kathleen Kinville had been employed by the Pierce

⁴⁴ Department of Labor v. Kinville, 5 Wn. App. 80; 664 P.2d 1311; 1983 Wash. App.

County Board of Education beginning in June 1976. In November of that year, she began to suffer emotional and psychiatric symptoms due to her anxiety about her employment. It developed out of disappointment about not receiving the training and placement she had expected, her belief that her supervisor was hostile, and to her transfer to a boring job and to a location in an isolated and unattractive environment. In addition to believing that her new supervisor was an alcoholic, and despite her dissatisfaction with her working conditions, she also feared that she would lose her job.

By December of that year, according to the court, Ms. Kinville began to “suffer hallucinations and lost touch with reality.” She was diagnosed as schizophrenic. On March 8, 1977, nine months after beginning her employment she filed a workers’ compensation claim for occupational disease with the Department of Labor & Industries. In eight days, the Department rejected her claim. Ms. Kinville filed an appeal with the Board of Industrial Insurance Appeals, and she presented medical testimony at the subsequent hearing indicating that she had a predisposition for emotional illness. It indicated also that her breakdown was directly attributable to stress resulting from frustration at her job. The Department had four of her former co-workers testify regarding their working environment. They stated that the environment was not excessively stressful and did not involve unreasonable demands or harassment.

A hearing examiner and the Board of Industrial Insurance Appeals reversed the Department and supported the claim for compensation. The Department appealed the Board’s findings to the Superior Court in Pierce County, which reversed the Board. The appeal to the Court of Appeals was from Kathleen Kinville. Only one issue was on appeal--the trial court’s conclusion that her psychiatric condition failed to qualify as an occupational disease.

The court noted that earlier cases involving occupational disease had held that to satisfy the requirements for claim acceptance, a disease had to be peculiar to a given occupation and brought about by an exposure to certain harmful conditions that were constantly present and to which all workers in the occupation were exposed.⁴⁵ It was further observed that the “peculiar to the occupation” requirement was not based on any judicial construction of the “naturally and proximately” requirement contained in the then existing occupational disease statute. In fact, it was based on a line of cases decided before the state had its original occupational disease statute.⁴⁶ The “peculiar to a given occupation” requirement was expressly rejected in an earlier case, *Simpson Logging*, where a common health condition, asthma, and common working environments, dust and smoke, were both present and the court awarded compensation.⁴⁷

The court then noted the *Favor* case, where the court rejected the claim for compensation partially on the ground that the occupational disease statute requires objective proof that a worker’s disease arose proximately out of the employment and that the claimant’s statements as to purely subjective conditions peculiar to himself did not satisfy that standard. It pointed to the language where the court found that *Favor*’s heart condition did not arise naturally and proximately from his employment:

⁴⁵ Cited were *St. Paul & Tacoma Lumber Co. v. Department of Labor & Indus.*, 19 Wn.2d 639, 144 P.2d 250 (1943); *Romeo v. Department of Labor & Indus.*, 19 Wn.2d 289, 142 P.2d 392 (1943).

⁴⁶ Cited was *Seattle Can Co. v. Department of Labor & Indus.*, 147 Wash. 303, 265 P. 739 (1928).

⁴⁷ *Simpson Logging Co. v. Department of Labor & Indus.*, 32 Wn.2d 472, 202 P.2d 448 (1949).

It seems obvious that, if men in all employments suffer the same disease as that of the claimant, it does not meet the proximate cause requirement of the statute; nor does the fact that the claimant worried about his work distinguish the case. Persons in all employments, and in all activities are exposed to the emotional stress and strain of anxiety and worry, and it cannot be said to have arisen naturally and proximately from the claimant's employment⁴⁸

With the benefit of hindsight, how did the Appellate Court reconcile the thinking in the Simpson Logging decision with that in the Favor decision? In fact it was candid and allowed that it could not do so.

We are unable to reconcile Simpson and Favor. We believe that Favor, sub silentio, overruled Simpson's rejection of the peculiar to the occupation requirement for an occupational disease.⁴⁹ In our view, Favor's language is but another way of phrasing that requirement. Consequently, and because no prior decision has concentrated on the entire phrase as arises naturally and proximately, we believe we now should do so.

In tackling this issue the court held that the requirement that the disease “arise naturally and proximately out of the employment” “can be construed as limiting compensation to diseases that are inherent in a claimant’s particular occupation. It went on to point out that this was consistent with the “well established principle” that the statute was not intended to provide workers with general health and accident insurance at the expense of the industry in which they are employed.

The court concluded:

In this regard, we do not believe the Legislature intended to limit compensation to situations where the claimant is able to demonstrate that his disease is unique to his particular type of employment. Instead, we believe the statute requires a showing by the claimant that the job requirements of his particular occupation exposed him to a greater risk of contracting the disease than would other types of employment or nonemployment life.

This construction appears to have been driven by an attempt to compromise between those favoring the old, “peculiar to one’s particular occupation or employment” approach and to nesting that within the “arises naturally and proximately” terminology found in the legislation. The self-preservation of the system might have been a consideration of the court as it recited the “well established principle” that the system was limited in its scope of coverage.

⁴⁸ Favor v. Department of Labor & Industries, 53 Wn.2d 698; 336 P.2d 382 (1959).

⁴⁹ Sub silentio, “The case is decided against precedent, the newer case is said to have over-ruled the previous decision,” Webster’s New World Law Dictionary, 2010. Wiley Publishing Co. The court did not expressly say that it was over-ruling a prior decision, and rather, it decided a case in a manner that cannot logically be reconciled with the prior decision.

3.1 The Dennis Decision

In light of the Kinville decision and the court's effort to define "arising naturally and proximately," the courts continued to struggle to find the economically secure but fair ground on which to decide the compensability of occupational disease.⁵⁰ The challenge was apparent in a 1987 case decided in the Supreme Court four years after the Kinville decision in the Court of Appeals, Division 2.⁵¹ Kenneth Dennis, a sheet metal worker for 38 years ceased working due to disabling osteoarthritis in his wrists. He filed a claim for workers' compensation benefits that the Department of Labor & Industries rejected on grounds that there was no industrial injury and that he did not sustain an occupational disease. Dennis then dropped his claim for an industrial injury (retaining his occupational disease claim) and appealed the Department's denial of his occupational disease claim. A hearing examiner at the Board of Industrial Insurance Appeals recommended a reversal of the Department's decision, but the full Board affirmed the Department's rejection of the claim. Dennis appealed to Superior Court, which granted summary judgment to the Department. However the Court of Appeals reversed the lower court and remanded the case for trial. The Department then appealed to the Supreme Court.

Mr. Dennis's attending physician testified that his employment had aggravated his pre-existing osteoarthritis, and that it became symptomatic and disabling as a result of his work. The Department did not dispute the testimony. Instead, it argued that for workers' compensation to be awarded for an occupational disease, the underlying disease, osteoarthritis, must have been contracted as a direct result of the employment conditions. It further claimed that a mere showing that the claimant's work activities aggravated a pre-existing and nonindustrial osteoarthritic condition did not suffice, as a matter of law, to establish that the disease arose "naturally and proximately" out of the worker's employment. Literally speaking, a disease did not "arise" out of a worker's employment if the worker contracted the disease before the employment began. Since the statute requires that the disease "arise" out of, and not simply be proximately caused by, the worker's employment, the Department reasoned that mere aggravation of a condition as a result of employment activities did not constitute an occupational disease as a matter of law.

The court concluded that construing "arose" in such a literal and narrow fashion would be inconsistent with another aspect of the statute that expressly provides for the employee with an occupational disease to be treated in the same manner as one with an occupational injury.⁵² The court observed:

...The worker whose work acts upon a preexisting disease to produce disability where none existed before is just as injured in his or her employment as is the worker who contracts a disease as a result of employment conditions.

⁵⁰ By economically secure we refer to the perceived need to keep claims acceptances, and thereby system costs, within some acceptable bound. By "fair", we refer to the notion that a worker who is disabled by a disease that arises out of the employment be faced with the same standard for compensability as the worker who sustains an injury by an industrial accident.

⁵¹ Dennis v. Department of Labor & Indus., 44 Wn. App. 423, 722 P.2d 1317 (1986) and Dennis v. Department of Labor & Indus., 109 Wash.2d 467, 470, 745 P.2d 1295 (1987) .

⁵² See Wash. Rev. Code § 51.32.180.

It then cited a 1939 decision where a work injury acted upon and combined with an asymptomatic condition to disable a 26-year-old long shore worker:⁵³

It is a fundamental principle which most, if not all, courts accept, that, if the accident or injury complained of is the proximate cause of the disability for which compensation is sought, the previous physical condition of the workman is immaterial and recovery may be had for the full disability independent of any preexisting or congenital weakness; the theory upon which that principle is founded is that the workman's prior physical condition is not deemed the cause of the injury, but merely a condition upon which the real cause operated.

It then cited language from an earlier Washington decision:⁵⁴

...The worker is to be taken as he or she is, with all his or her preexisting frailties and bodily infirmities.

It should be noted that similar language, with slight variations in wording, can be found in the case law of most of the states.

The court noted that on several occasions, workers' compensation was granted to workers whose work injuries from accidents had "lit up" a pre-existing asymptomatic disease. It held that it would be anomalous if the state were not to allow benefits in cases where progressive, gradual conditions lit up underlying or pre-existing diseases. In summarizing its thinking on the appropriate coverage of occupational disease claims, the Dennis Court states:

In summary, the purpose of the Industrial Insurance Act, the rule of liberal construction of provisions of the Act in favor of workers, analogous case law involving industrial injuries acting on preexisting nonwork-related disease, the history of occupational disease coverage in Washington, and our broad definition of occupational disease all support our holding that compensation may be due where disability results from work-related aggravation of a preexisting nonwork-related disease.

The court acknowledged the need to consider the costs of such a broad approach to coverage, but it pointed out that a worker seeking coverage of an alleged occupational disease still needed to present evidence that the disabling condition was proximately caused by the worker's employment, which may only be established by competent medical testimony supporting such a conclusion.⁵⁵ That evidence must show that the disease is probably, as opposed to possibly, caused by the employment.

Focusing on the "naturally" element of the statutory definition of occupational disease, the court noted that the Board's upholding of the rejection of the claim was because it found that the exacerbation of the osteoarthritis was not peculiar to nor inherent in his occupation nor was

⁵³ Miller v. Department of Labor & Indus., 200 Wash. 674, 682-83, 94 P.2d 764 (1939).

⁵⁴ Wendt v. Department of Labor & Indus., 18 Wn. App. 674, 682-83, 571 P.2d 229 (1977).

⁵⁵ Elman v. Department of Labor & Indus., 33 Wn. 2d 584, 206.

he exposed to a greater risk of developing or aggravating his condition than he would have been in other types of work or in non-employment. This caused the Board to conclude that the disabling condition did not arise “naturally” from his employment.

The Board of Industrial Insurance Appeal’s position emanated from the language of the Kinville decision. The Court in Dennis observed that the Board’s view was understandable as that definition of “naturally” was the only published Washington definition of “arising naturally” at the time. However, the Supreme Court did not agree with the “peculiar to or inherent in” construction formulated by the Court of Appeals, Division 2, in its Kinville decision. By resorting to “peculiar to” the Court of Appeals disregarded both the Simpson Logging decision where the “peculiar to” requirement was rejected, as well as the legislative history of the statute. Because Kinville requires that a worker must show that the conditions that caused the condition are “peculiar to his employment,” it was held to be incorrect.

The Supreme Court in Dennis then provided the following definition of the phrase “arising naturally”:

We hold that a worker must establish that his or her occupational disease came about as a matter of course as a natural consequence or incident of distinctive conditions of his or her particular employment. The conditions need not be peculiar to, nor unique to, the worker's particular employment. Moreover, the focus is upon conditions giving rise to the occupational disease, or the disease-based disability resulting from work-related aggravation of a nonwork-related disease, and not upon whether the disease itself is common to that particular employment. The worker, in attempting to satisfy the "naturally" requirement, must show that his or her particular work conditions more probably caused his or her disease or disease-based disability than conditions in everyday life or all employments in general; the disease or disease-based disability must be a natural incident of conditions of that worker's particular employment. Finally, the conditions causing the disease or disease-based disability must be conditions of employment, that is, conditions of the worker's particular occupation as opposed to conditions coincidentally occurring in his or her workplace.

Two other matters then captured the Court’s attention. First, it indicated that its analysis did not modify “the longstanding requirement that a claimant satisfy the “proximately” requirement of RCW 51.08.140.” Next it noted its agreement with the Kinville opinion to the extent that the opinion requires:

...a showing by the claimant that the job requirements of his particular occupation exposed him to a greater risk of contracting the disease than would other types of employment or nonemployment life.

The Dennis court, however, stated that it was not prepared to require proof of a greater risk in the worker’s particular employment of contracting an occupational disease or of disability resulting from work-related aggravation of a pre-existing disease. The court noted that the statute contained no language requiring that there be an increased risk in the worker’s particular

employment. Given that the statute did not speak to this, the Court was not disposed to itself add it.

Among other things left unresolved by the Dennis decision was the future handling of claims where the pre-existing conditions were symptomatic. It is still not clear what will happen when such a case arrives next at the Supreme Court. In the years since the 1987 decision the courts have sought to flesh out the application of the Supreme Court's Dennis decision. The Department of Labor and the Board of Industrial Insurance Appeals have had the task of making day to day decisions as to the meaning of the arising naturally and proximately definition that the Supreme Court delivered in 1987.

3.2 Issues Other than Compensability

Until now most of the focus of this discussion has been on the issue of compensability, that is, the acceptance or rejection of an occupational disease claim for workers' compensation. We turn our attention now to some recent cases that deal with the special characteristics of many occupational disease claims.

Because many cases of occupational disease develop slowly, and in some cases remain latent for many years after an injurious exposure, time becomes an issue. First we consider cases where a disease develops over time and the worker may have been exposed at various establishments or while employed at one or more enterprises that have been covered by multiple insurers. Of course the issue arises less frequently in Washington and the three other states where employers, other than self-insured employers, have only one possible source of insurance.

Washington is one of many states that use a rule such that in claims for occupational disease, liability rests with the insurer where the last injurious exposure occurred.⁵⁶ We note here at least three decisions that have affected this provision of the law in recent years. In *Weyerhaeuser Company v. Donald G. Tri, et al.*,⁵⁷ eight employees of the Weyerhaeuser Company filed claims with the Department of Labor & Industries for hearing loss due to occupational noise. The department accepted the claims and awarded permanent partial disability benefits. The company was ordered to pay the full cost of each disability. Weyerhaeuser was self-insured at the time that each worker was last injuriously exposed to the occupational noise. The company had been insured with the State Fund for some period of time previously while the eight employees were exposed to injurious noise. In fact while Mr. Tri and his fellow workers were injuriously exposed, the Fund had been the insurer for a longer period than while the company self insured.

Washington has several sections of its statute that provide for segregation (or apportionment).⁵⁸ While it has used the last injurious exposure insurer rule in occupational

⁵⁶ We are aware that if the State Fund is the last insurer, it is fully liable, but it can apportion costs across its insureds for purposes of rating their experience. It is also true that the last injurious exposure rule usually assigns liability to the employer where the last injurious exposure occurred and may or may not make mention of the insurer of record for the employer where the last injurious exposure occurred.

⁵⁷ 117 Wn.2d 128; 814 P.2d 629; 1991 Wash. LEXIS 321.

⁵⁸ For example see RCW 51.32.080(3) and RCW 51.32.100.

disease claims, it is in fact a rule and not found in statute.⁵⁹ It does appear in its administrative code.⁶⁰ Weyerhaeuser contended that since the legislature had shown some preference for apportionment, it should be used in this case and that the State Fund should be liable for some of the costs of the eight claims. The Supreme Court found the employer's argument lacked merit and upheld the lower court and the Board in finding the company liable for all the costs in these claims.

Two years later, the Supreme Court took on once again the application of the last injurious exposure issue. In cases involving asbestos-caused disease, Marvin Fankhauser and Curtis Rudolph, both with long exposures to asbestos in various employments, sought workers' compensation benefits from the Department.⁶¹ Among other issues, their last years of hazardous exposure occurred while they were self-employed. Although each one could have elected to be covered under the workers' compensation law, they had chosen not to do so. The Department rejected both claims on grounds that the last injurious exposure did not occur during employment that had been covered by industrial injury insurance. In Fankhauser's case he had been covered under the Industrial Insurance Act for only one year and then subsequently chose not to be covered in his self-employment for the following 21 years. The Board reversed the Department, finding that the law did not bar claims since the last injurious exposure insurer rule did not apply to employment that was outside the coverage of the act. The Board held that the rule applies to allocate liability only among insurers providing industrial insurance under the statute, but that it does not determine whether an occupational disease claim is compensable at all. The Supreme Court sided with the two workers and ordered that the benefits be awarded.

In the last case we consider regarding the recent application of the last injurious exposure rule, a claimant, Dana Clevenger, suffered a back injury while working for a self-insured employer.⁶² Clevenger returned to work after her injury. The plant that Clevenger worked at was sold to a new employer, who was insured by the state fund. Thus, even though Clevenger continued doing the same work at the same location, she had a new employer. At some point after the plant was sold, Clevenger's back condition became aggravated and she had to cease employment. She filed an application to reopen her injury claim, which was granted, and the self-insured employer did not challenge the decision to reopen her claim. Clevenger did not suffer a new injury while working for the "new" employer, and did not file an occupational disease claim at any time.

⁵⁹ The Court of Appeals, the Board, and the Department¹² have all adopted the last injurious exposure rule. We, too, conclude that implementation of the rule furthers the Act's overall goals. Implementation of the last injurious exposure rule may create a tension between the Act's goals of providing swift and certain relief to the worker on the one hand, and of limiting employer liability on the other. However, given our commitment to liberally construing the Act in favor of injured workers, *Sacred Heart Med. Ctr. v. Carrado*, 92 Wn.2d 631, 635, 600 P.2d 1015 (1979); [***19] *Lightle v. Department of Labor & Indus.*, 68 Wn.2d 507, 510, 413 P.2d 814 (1966), that tension should be resolved in favor of the injured worker. *Dennis*, 109 Wn.2d at 470; *Lightle*, 68 Wn.2d at 510.

⁶⁰ WAC 296-14-350(1) states: "The liable insurer in occupational disease cases is the insurer on risk at the time of the last injurious exposure to the injurious substance or hazard of disease which gave rise to the claim for compensation." (Filed 11/15/93, effective 1/1/94.)

⁶¹ *The Department of Labor and Industries v. Fankhauser*; *The Department of Labor and Industries v. Curtis Rudolph*, 121 Wn.2d 304; 849 P.2d 1209; 1993 Wash. LEXIS 91.

⁶² *Cowlitz Stud Company v. Dana Clevenger et al.*, 157 Wn.2d 569; 141 P.3d 1; 2006 Wash. LEXIS 612.

When the Department directed the self-insured employer to begin paying her time loss compensation, the employer appealed. The majority of the doctors who testified in the case opined that Clevenger was unable to work and that her injury was at least a proximate cause of her condition. The doctors also acknowledged that her work for the state fund employer likely contributed to her back pain at least in some fashion, but did not testify that Clevenger's back condition was aggravated solely as a result of her work for that employer.

Initially, the employer argued that Clevenger was not disabled. Later, the employer argued that, regardless of whether she was disabled as a proximate result of her injury, the last injurious exposure rule absolved it of responsibility to provide her with benefits, because her work for the state fund employer had "contributed" to her low back condition. A superior court agreed, and ruled that the employer could not be ordered to provide any further benefits to Clevenger, regardless of whether the injury she suffered while working for the self-insured employer was at least a proximate cause of her disability. The Supreme Court concluded that the last injurious exposure rule did not apply to injury claims, and that it only applied to occupational disease claims. Since it was undisputed that Clevenger had suffered an industrial injury and that her claim had been allowed as such, the last injurious exposure rule had no applicability to Clevenger's claim. Therefore, the Supreme Court remanded the case to the trial court to determine whether Clevenger was disabled as a proximate result of her industrial injury.

We turn our attention briefly to a series of cases that involve the difficult matter of time in occupational disease claims. While the issue is not entirely irrelevant in cases of injury, in most of such cases, the time of the injury and the worker's earnings at that time are quite definite and usually not difficult to establish. In the cases of disability arising from gradually developing conditions, the matter of time can create many challenging problems. We briefly note here some of the more recent cases and decisions.

In a case decided in 1991, the Supreme Court ruled that an individual with an accepted claim for asbestos-caused disease was entitled to benefits based upon a calculation using his earnings on the date that the disease manifested itself.⁶³ This was in line with the position of the Board of Industrial Insurance Appeals, which had reversed the Department of Labor & Industries approach. The Department had used Robert Landon's earnings at the time of his last exposure to asbestos as the basis for calculating his indemnity benefits. The Board and the Court's position yielded greater benefits for the claimant by virtue of the earnings at the time of manifestation.

Time was again an issue in a later dispute that arose in a claim for hearing loss over the issue of the date on which benefits were to be set. In this case the claimant argued for setting the benefit based on the date of last exposure.⁶⁴ Unlike the Landon case cited *supra* it was less beneficial to the worker, Donald Harry, to have the benefit based upon the date when the disability was first manifested. The date the condition first became disabling was 1974, many years before the date in 2001, when the last hazardous exposure occurred. In this case, the Supreme Court found in the claimant's favor:

⁶³ The Department of Labor and Industries v. Robert A. Landon. 117 Wn.2d 122; 814 P.2d 626; 1991 Wash. LEXIS 320.

⁶⁴ Harry v. Buse Timber & Sales, Inc., et al. 166 Wn.2d 1; 201 P.3d 1011; 2009 Wash. LEXIS 157.

We affirm the Court of Appeals' reversal of the Department's order applying the 1974 schedule of benefits to Harry's 2001 permanent partial disability claim for occupational hearing loss. Occupational hearing loss that does not require medical treatment before retirement is compensable according to the schedule of benefits in effect on the date occupational noise last contributed to the disability for which a worker seeks compensation.

A later case that focused also on the appropriate earnings basis on which to set the compensation benefits developed over a worker who died from an occupational disease seven years after his voluntary retirement.⁶⁵ Irene Hood's husband voluntarily retired in 1990 after 29 years of employment at the Weyerhaeuser Company. Seven years later he was diagnosed with asbestos-caused disease, and Leslie Hood died from that in 1999. Irene filed a workers' compensation claim for death benefits that the Department accepted.

Weyerhaeuser first sought to have the claim rejected on the grounds that the voluntary retirement precluded the claim from being accepted. The Board sided with the Department and Weyerhaeuser did not appeal that decision. The Department then issued a wage order and set the benefit for Ms. Hood on the basis of Leslie Hood's last known earnings, that is, the wages he was earning immediately before he retired. Weyerhaeuser appealed, arguing that the benefit should be based on Mr. Hood's wages at the time the disease manifested itself, that is, when his wages were zero dollars a month.

Had Weyerhaeuser's argument prevailed Irene Hood would have been entitled to the statutory minimum benefit prevailing at the time or \$185/month, as compared to basing the benefit on his earnings at the time of his retirement of \$4,223.60/month. The Board sided with Weyerhaeuser, but the Cowlitz County Superior Court granted summary judgment to the claimant and reversed the Board. Weyerhaeuser appealed and the case was heard by the Court of Appeals, Division One. Ms. Hood and the Department argued that the legislature could not have meant that a survivor of a deceased worker who had voluntarily retired and then developed a long latent disease (which was manifested after his retirement) was entitled to either nothing or the statutory minimum.

Weyerhaeuser contended that 1986 amendments to the statute, RCW 51.32.060 and 51.32.090, declared that a voluntarily retired worker was not eligible to receive either time loss or pension benefits for a disability. However, the Court pointed out that the statute did not place a similar restriction on benefits for death. It ordered that Ms. Hood's survivor benefits be based on her husband's earnings at the time he ceased work.

Another common source of contention under occupational disease laws regarding time is interpreting statutes of limitations. The Supreme Court tackled the matter as it applied to the beneficiaries of workers whose deaths arose from asbestos-caused disease.⁶⁶ In separate actions, the workers' widows sought death benefits and their claims were rejected on grounds that the statute of limitations barred them. The Board of Industrial Insurance Appeals reversed the

⁶⁵ Irene M. Hood et al. v. Weyerhaeuser Company, No. 64974-4-I, Wash. App. LEXIS 72.

⁶⁶ Department of Labor and Industries, v. The Estate of David E. MacMillan; The Department of Labor and Industries, v. Pearl Aalmo, 117 Wn.2d 222; 814 P.2d 194.

Department and allowed the claims. That the issues were not clear cut is evidenced by the next steps in the litigation. The King County Superior Court granted summary judgment ruling in favor of the Department in the MacMillan claim. The Pierce County Superior Court also granted summary judgment, however it was in favor of Ms. Aalmo.

The Supreme Court granted review and the two cases were consolidated. The Court held that:

We find the notice provisions under RCW 51.28.055 apply to all claims for occupational disease, whether filed by a worker or a beneficiary. Thus, RCW 51.28.055 delays the running of the statute until the beneficiary is informed of the nature of the cause of death and its causal relation to the decedent's occupation. It is not enough that the beneficiaries in this case were given the medical name for the cause of death, which may certainly have been meaningless to them. See Williams v. Department of Labor & Indus., 45 Wn.2d 574, 576, 277 P.2d 338 (1954) (it is not enough that the workman be told a medical name for his disease, which may be meaningless to him, without a statement of its causal relationship to his occupation).

We turn now to an entirely different but no less controversial issue in the adjudication of claims for occupational disease. In the case of the Boeing Company v. Carl Heidy et al., the issue was the basis for assessing the degree of disability from occupationally caused noise related hearing loss (NRHL).⁶⁷ As noted above in the discussion of the Harry case, hearing loss raises special issues in the area of occupational disease. This case highlights one of these. Most individuals sustain some age-related hearing loss (ARHL), and it can be difficult to separate the effects of aging and of industrial noise in assessing disability, if any. There are various measures that some states have taken to sort this out. In this instance the Supreme Court of Washington reduced the issue to the basics. Judge Johnson writing for the en banc court wrote:

The key issue in this case, reduced to its essence, is whether an employer can reduce a worker's permanent partial disability award for work-related hearing loss because people of that worker's age generally suffer from age-related hearing loss. The Department of Labor and Industries, the Board of Industrial Insurance Appeals, and two superior courts said no. We affirm.

As we have considered the handling of occupational disease cases in Washington, we have made several comments regarding the fine line that the states have sought to walk in assuring some fair treatment to workers without opening the gates to limitless numbers of claims that would ultimately bankrupt the system. Thus we can see instances where states have made their laws more open to claims when the system is perceived as being overly inaccessible. We have also seen backtracking where the states may have sensed that the system had become vulnerable to excessive use. We simply note here two instances where Washington, long regarded nationally as a state that recognizes the obligation to fairly compensate workers who sustain occupational disabilities, may have believed that it had gone too far.

⁶⁷147 Wn.2d 78; 51 P.3d 793; 2002 Wash. LEXIS 489.

One instance of that concern has been in the area of mental conditions. In 1988, the law was amended to include the following: The department shall adopt a rule pursuant to chapter 34.05 RCW that claims based on mental conditions or mental disabilities caused by stress do not fall within the definition of occupational disease in RCW 51.08.140.⁶⁸

As directed, the Department then promulgated 12 instances of mental conditions or mental disabilities caused by stress that do not fall within the boundaries of compensable occupational disease. The wording of the rule implies that these 12 instances are not to be considered the only conditions that would be regarded as noncompensable occupational disease. The door was not shut entirely on stress-caused mental conditions as an exposure to a single traumatic event would be adjudicated as an industrial injury, that is, under RCW 51.08.100.

Similar caution led the legislature to put some special limits on hearing loss claims. In 2004, it added a 2-year statute of limitations to claims for noise related hearing loss (RCW 51.28.055).

*(2) (a) Except as provided in (b) of this subsection, to be valid and compensable, claims for **hearing loss** due to occupational noise exposure must be filed within two years of the date of the worker's last injurious exposure to occupational noise in employment covered under this title or within one year of September 10, 2003, whichever is later.*

*(b) A claim for **hearing loss** due to occupational noise exposure that is not timely filed under (a) of this subsection can only be allowed for medical aid benefits under chapter 51.36 RCW.*

Many workers in Washington whose employment exposes them to noise are now regularly tested by their employers.

⁶⁸ § 51.08.142.

4 ADJUDICATION OF OCCUPATIONAL DISEASE IN WASHINGTON

The purpose of this chapter is to describe the adjudication of workers' compensation occupational disease claims in the state of Washington. The chapter describes in some detail how workers' compensation claims are adjudicated. There are separate descriptions for injury claims and occupational disease claims that will serve to highlight the differences between them. In our description of the adjudication process, we focus on the process as practiced currently (spring 2012) at the Department of Labor and Industries (the exclusive State Fund insurer) and characterize changes in policies and practices over the last fifteen years. Where it is relevant, we also seek to contrast State Fund procedures with L&I oversight of self-insured claims. Unfortunately, there is no comprehensive source of detailed information on the adjudication of workers' compensation claims by self-insured employers, so this part of the discussion is necessarily impressionistic.⁶⁹

4.1 Department of Labor and Industries

The Washington Department of Labor and Industries is the state agency dedicated to the safety, health, and security of workers in the State of Washington. While self-insurance is allowed, the Department serves as the exclusive insurer for workers' compensation coverage of workplace injuries and illnesses in Washington. In addition, L&I includes the Division of Occupational Safety and Health, which administers the Washington Industrial Safety and Health Act (WISHA) by developing and enforcing rules to protect workers on the job and by consulting with employers on workplace safety and health practices. L&I also conducts research into workplace safety and health issues to prevent injuries and illnesses and promote healthy work environments.

4.2 Adjudication of Workers' Compensation Claims at L&I

Workers' compensation claims in Washington originate with a Report of Occupational Injury or Disease, commonly referred to as a Report of Accident (ROA), from an injured worker and his/her medical provider. L&I receives approximately 100,000 ROAs annually. These paper forms are available in doctor's offices, clinics, hospitals, and from regional offices of L&I. While the worker attests to the time and place of the injury, and describes how the injury or exposure occurred, the primary responsibility is assigned to the medical provider in signing the ROA form and submitting it to L&I. The medical provider supplies a diagnosis, the subjective and objective findings that support the diagnosis, and a treatment plan.⁷⁰

⁶⁹ Our description of the structure and functions at L&I is dependent upon three main sources. First, the online sources provided by L&I as part of OLRs (On-Line Reference System). OLRs supports the adjudicator function by documenting the law, the regulations, a policy manual, an adjudicator manual, summaries of important legal decisions, and much more. While sometimes dated, this online resource provides nearly everything the adjudicator needs to know to do his or her job. Second, we rely on our independent legal research, primarily through the Lexis system and written materials provided by L&I staff. These resources provided the background material on the development of the Industrial Insurance Law. A third source was our interviews with informed participants in and observers of the Washington workers' compensation system.

⁷⁰ Beginning in the middle of 2011 and spreading gradually through the state by district over 2012 and 2013 a new "FileFast" system is being launched. It allows workers to file claims online or through a call center. Providers

The doctor also must indicate whether a causal relationship (more probably than not) exists between the incident described by the worker and the condition diagnosed and whether the condition will prevent an immediate return to work. Any preexisting impairments or previous treatment that might bear on the recovery are also noted.

An Account Manager in Employer Services is designated for each State Fund claim. His or her responsibility is to validate the employer-employee relationship for each claim, as well as maintaining employer accounts, processing experience adjustments, dealing with disputes over the employer-employee relationship, and other duties. After L&I receives the ROA from the employee's medical provider, a copy of the form (EROA) is sent to the employer. The employer reviews the information provided by the employee and his/her doctor, provides information on whether wages and benefits will continue, and signs the form. The employer also has the opportunity to question the validity of the claim when completing the EROA.

Reports of Accident are routed to Claims Initiation units where 20 data entry staff sort them into time-loss and medical only claims. Time-loss claims are assigned priority for imaging and indexing because they have more urgency due to the worker's inability to work and the time needed to process. ROAs then go to the Imaging Department where they are scanned and keyed into the LINIIS (Labor and Industries Industrial Insurance System) database. For many claims, the employer information on the ROA will be sufficient for the Account Manager to attach an employer to the claim, but others must be researched. Nevertheless, all claims are routed to an Account Manager for allocation to a specific risk class. If no employer/employee relationship can be established at this point, the claim will be rejected.

The incoming claims are processed through the LINIIS computer algorithm that estimates the likely duration and complexity of a claim according to the Report of Accident (ROA) and assigns it to a specific Claims Unit and individual Claim Manager accordingly. For very straightforward claims (mostly medical only), the system performs an "auto-adjudication" to approve payment and close the claim. Such claims are also reviewed by a Claim Manager in the unit that adjudicates medical-only claims. This process runs overnight, and each morning, the Claim Managers will find a number of new claims and other business "reminders" on their computer screen. LINIIS establishes claim data files and allows Claim Managers to update and review claim information as needed.

The least complex cases are assigned to the more junior adjudicators, while more difficult cases are assigned to more experienced adjudicators. The LINIIS system makes these allocations in the first instance, but claims can be moved by Unit Supervisors to reflect special claim issues or special competencies of adjudicators. The higher level adjudicators (WCA4 or Claim Lead) are mainly assigned to specialty functions like quality assurance, training, coaching/mentoring, and claim reviews that require the most judgment. Claim Consultants are WCA4 level adjudicators in Legal Services. They provide advice and opinions on the legal aspects of claims and review all appeals before referral to the Assistant Attorney General's office. There are also

can file claims online in addition to the existing paper mail or fax process. The program aims to eliminate delays, reduce costs, and improve service to workers, employers, and providers.

WCA5 level adjudicators who have extraordinary experience or capability and serve in highly specialized functions like pension adjudication and supervising in the Claims Appeals unit.

4.2.1 Description of Adjudication Process for Injury Claims

Once a workers' compensation claim has been assigned to an individual Claim Manager, the first decision that must be made is the allowance decision. Assuming coverage is verified, there are three requirements for a "prima facie" case for injury claim allowance:

- The worker must have been acting in the course of employment at the time of injury;
- The description of the accident must meet the legal description of an injury;
- Medical opinion must relate the diagnosed condition to the incident or exposure on a "more probable than not" basis.⁷¹

If these requirements are met, and the ROA has been filed within one year of the incident, the claim is judged to be compensable and an "Allowance Order" (AO) is entered into the LINIIS system by the Claim Manager. This triggers medical aid and time-loss benefits (if justified by the duration of lost work time) for the injured worker and notification to all parties (worker, provider, and employer) that the claim is allowed. L&I attempts to deliver time-loss payments within 14 days of receiving notification of the worker's disability. Because of Washington's benefits formula, the Claim Manager must establish the marital status of the worker and the number of dependent children, as well as the wage level. The Claim Manager also sets a date for closure, from 30 to 90 days from the date of injury or the date of claim receipt. This is not done in cases where there is expected to be permanent impairment.

In most injury claims, the employer at injury is easily identified by the date of injury. On the date of injury, the injured worker was employed by a particular employer at a particular site where the incident occurred. However, there are situations where the employment relationship is complex (contract worker, temporary agency, legal entity issues, etc.), or the site of the injury is outside the normal bounds of an establishment (parking lot, on business travel, telecommuting, etc.), or the employer does not have coverage by the State Fund. In any event, the assigned Account Manager in Employer Services must establish the employer identity and verify their coverage by the State Fund. As we shall see, this is frequently not the case in an occupational disease claim where the Claim Manager rather than the Account Manager is responsible for determining the chargeable employer(s).

The most complex issue in accident claims is frequently setting the rate of compensation. This is done by establishing the wage level, which provides the basis of setting the workers' time loss benefit payment.⁷² In addition to the date of injury, the marital or (effective in 2009) "registered domestic partnership" status, and number of dependent children are relevant. And, of course, the rules for these determinations vary across time. Dependent children to age 18 (or 23 if enrolled full time in an accredited school) up to a maximum of five children also increase the benefit payment.

⁷¹ WCA Manual, Chapter 3.

⁷² See Title 51 RCW, Chapter 32.

The basic time-loss wage replacement rate for a single worker with no dependents is 60 percent of gross monthly wages. For a married worker, that rises to 65 percent, with an additional 2 percent for each child up to five, resulting in a maximum replacement rate of 75 percent for a married worker with five or more children. Of course, these calculations are subject to the mandated minimum and maximum compensation rates for the state.

The minimum benefit is set at 15 percent of the State Average Monthly Wage (which is \$4,013.50 for 7/1/11 through 6/30/12) with a range of \$602.03 to \$662.03 depending on dependents. The maximum benefit (effective from 7/1/96) is set at 120 percent of the State Average Monthly Wage or \$4,816.20 currently. Since 1973, there has been a legislature approved cost-of-living adjustment (COLA) for claims with earlier injury dates. This became an annual practice in 1984, but the COLA is currently frozen from June 30, 2011 to July 1, 2012.

Additional considerations in setting the benefit level are housing, meals, clothing allowance, and fuel in the gross wage calculation. Also included are commissions and bonuses, shift differentials, and overtime hours (but at the regular hourly rate). In addition, the Cockle (2001) Supreme Court decision declared that employer paid health care benefits should also be included in the gross wage calculation, provided the employer did not continue these benefits during the period of disability.⁷³ Thus it is necessary for the Claim Manager to verify the basis for wage payments and consider supplemental benefits that must be included when calculating the level of the time loss benefit.

Should the Claim Manager encounter medical issues in adjudication of the claim where additional expert input is needed, s/he can call for an Independent Medical Examination (IME). This is nearly always done in the assessment of a Permanent Partial Disability claim, but can be used whenever there is some uncertainty about the medical facts.

The order issued by the Claim Manager accepting or rejecting the claim becomes final and binding 60 days after it is communicated to the parties unless protested. Claims can be reopened for both medical aid and time loss benefits within seven years of the initial claim closure. After seven years, the Claim Manager can still reopen a claim for medical benefits. However, only upon permission of the Department Director can time loss, pension or permanent disability benefits be paid.

Reopening requests can only be for worsening or aggravation of the condition. A formal request for reopening must receive a response within 90 days or the application is deemed granted. However, the Department can extend the period for an additional 60 days upon written notification to all parties.

Appeals of L&I Decisions. The decision rendered by the Claim Manager is generally final and binding 60 days after it has been communicated (although there are also interlocutory orders for temporary decisions), but any party may file a written protest, stating the specific issue with which they disagree. Parties include the worker, the employer, the medical provider, the beneficiary or any other person aggrieved by the order. Such “protests” must be filed within 60 days of the receipt of the order.

⁷³ Cockle v L&I, 142 Wn.2d at 806

Besides the informal protest option, parties to a decision have formal appellate rights. The first appeal is to the Board of Industrial Insurance Appeals (BIIA), which is an independent state agency charged with responsibility for reviewing and deciding disputes over L&I decisions on workers' compensation claims. The BIIA is headed by an appointed board of three persons, representing labor, employers and the public. BIIA staff review disputed claims and offer L&I the chance to "reassume" the case if they think there has been an obvious error in law or fact. Such claims are routed to the Claims Consultants to review on behalf of L&I.

After a further decision is made in response to a protest, parties may appeal to the Board of Industrial Insurance Appeals. Claims Consultants (WCA4) in Legal Services review such appeals for correct application of law and policy and either refer them back to the Claim Manager for recommended action or allow the appeal to proceed. If an error is discovered, the Claims Consultant will amend the order and correct the mistake; however, the main task of a Claims Consultant is to apply the law to the facts, making sure that there is a sound basis for the decision. L&I aims to resolve all appeals within 90 days.

If L&I does not reassume the case, and the dispute continues, it may be scheduled for mediation. The BIIA staff mediates disputes that seem susceptible to such an intervention. The parties to the dispute may reach agreement as a result of such mediation, or both sides may compromise. These disputes are then withdrawn from the appellate process. Assuming mediation does not succeed in resolving the dispute, the claim is set for hearing before an Industrial Appeal Judge of the BIIA.

A staff of Assistant Attorneys General (AAGs) represent L&I in the event of an appeal. They specialize in workers' compensation cases and are employed on a full-time basis in matters pertaining to L&I. The Industrial Appeal Judge (IAJ) issues a "proposed decision and order" (PD&O) after reviewing the evidence and any briefs prepared by the parties. The order lays out findings of fact and conclusions of law. If not satisfied with the decision of the IAJ, parties to the dispute may petition for review by the three member BIIA. The three member BIIA may issue a new Decision and Order or adopt the Proposed Decision & Order.

Interested parties can appeal the BIIA decision on any issue of law or fact to the Superior Court with jurisdiction for their location except for L&I, which can only appeal issues of law. Such appeals can be set for a jury trial or a bench trial depending on whether it involves a purely legal issue, though most trials do not involve a jury. Superior Court appeals are "de novo" appeals, but the facts as determined by the BIIA are regarded as correct. In the event of a jury trial at Superior Court, the testimony from the BIIA hearing and depositions are read aloud to the jury.

Any party may appeal a Superior Court decision to the Court of Appeals and ultimately the State Supreme Court. There is a Policy and Litigation Control Committee (PLCC) made up of members from L&I and the AAG's office that meets monthly to consider possible cases to appeal. However, since Court decisions have the potential to change L&I policy, the PLCC is very careful in selecting claims to appeal; an appeal of a court decision by L&I is not common.

4.2.2 Description of Adjudication Process for Occupational Disease

From the worker's perspective, few differences exist between the way that injuries and occupational diseases are adjudicated; the main one being the statute of limitations. However, from the Claim Manager's perspective, the burden of adjudicating occupational diseases is considerably greater. This reflects the causation issue, of course, but also the complexity imposed by the need to identify the timing of relevant causative exposures and the responsible employers at the times of exposure.

The definition for occupational disease is provided by the statute:

Occupational disease means such disease or infection as arises naturally and proximately out of employment under the mandatory or elective adoption provisions of this title. (RCW 51.08.140)

According to the L&I On-line Reference System, which serves as the documented authority for Claim Managers, the elements of compensability in an occupational disease claim are as follows:

- Arise naturally from distinctive conditions of employment, i.e., the disease or condition must result from the distinctive conditions of the worker's employment, not simply any employment or everyday life.
- Proximate cause, i.e., the particular work conditions must "more probably than not" contribute to the cause of the disease.
- Increased risk, i.e., the conditions of the particular occupation exposed the worker to an increased or greater risk of contracting the disease when compared to other employment or nonemployment.
- Specific and continuous activity, i.e, the occupational disease or condition must be the result of specific and continuous activities that are required to perform the job.
- Aggravation of pre-existing condition; under the Dennis decision, aggravation of a pre-existing non-work related condition can be compensable, whether symptomatic or asymptomatic previously.
- Statute of limitations. Claims for occupational disease must be filed within two years of the time the injured worker is notified in writing by a medical professional that the disease may be work-related. This has become a virtually meaningless test since medical professionals rarely perform such notification.

Figure 4.1 lays out the sequential steps that are followed in adjudicating occupational disease claims. It shows the required elements that must be determined by the adjudicator. Both the legal criteria and the medical criteria must be met for an occupational disease claim to be established. Issuance of the WO (Allow Without Employer Liability) order means that medical aid benefits and time loss benefits can begin to be paid. However, the more difficult question of employer liability is yet to be determined.

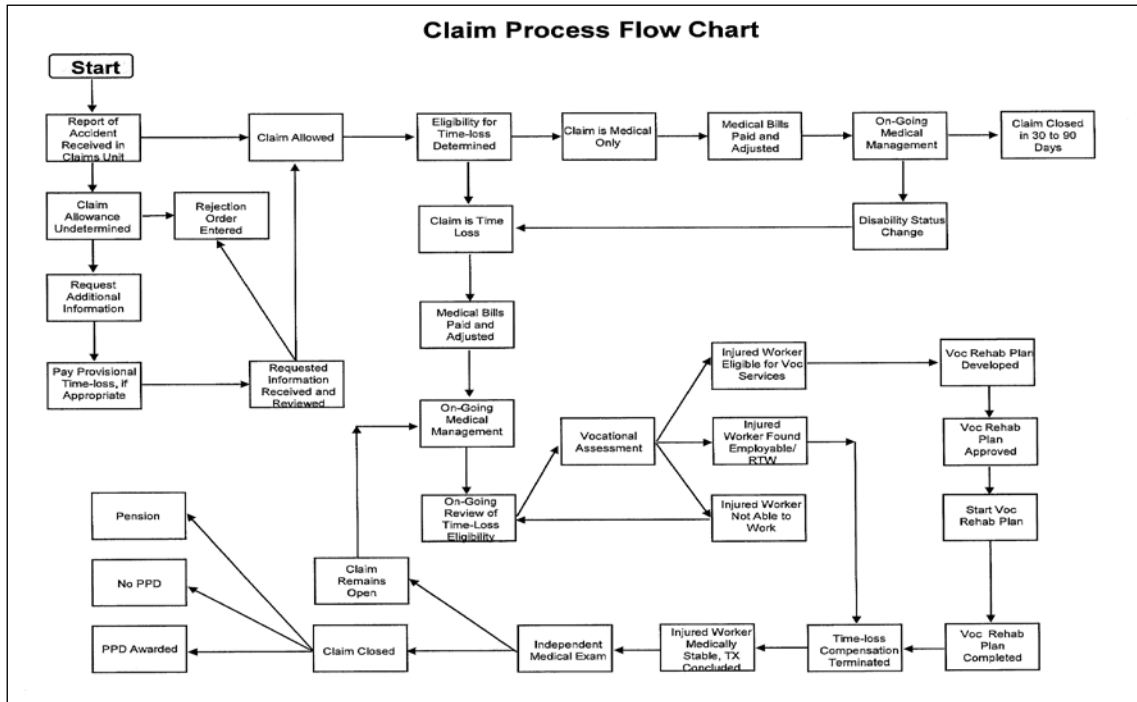


Figure 4.1 Sequential Adjudication of Occupational Disease Claims.

After determining the date of manifestation (in contrast to the date of injury in an injury claim), and whether the State Fund has coverage, the first issue that the Claim Manager must decide is whether a single employer or multiple employers were responsible for the harmful exposures that led to the occupational disease. If the disease developed over a considerable period of time, it is likely that multiple employers may have contributed. In this case a determination of where the exposure occurred and for what period of time must be made. The adjudicator sends a request for an employment history to the worker if this has not been secured previously.

If there are multiple employers involved, the work history must be evaluated for probable work exposures that are related to the occupational disease. Generally the Occupational Nurse Consultants (ONC) provide this information to the Claim Manager based on the worker's descriptions of his/her work for the various employers. If the ONC is not able to determine the probable exposure, the Claim Manager will ask the attending provider, or request an Independent Medical Examiner (IME) to establish this connection.

If the medical causation is clear, and the employer-employee relationship is established by Employer Services, the Claim Manager will issue the Employer Liability Order (LO). If this information cannot be obtained, the Claim Manager will consider placing the allowance order on hold (benefits would stop). However, if the allowance order (WO) is already final (usually 60 days), the employer liability order will be issued anyway. If employer liability cannot be established for a legitimate claim, the State Fund absorbs the cost of the claim and spreads it across all employers in the insurance class.

If multiple employer liabilities can be established, the cost of the claim will be prorated and charged to the experience rating accounts of the employers according to their relative contribution to the total exposure. This proration is applied for the three-year period of experience rating, but does not apply if the degree of causation assigned to a particular employer is less than ten percent of the total. Note that this procedure is only followed for State Fund insured employers. By Supreme Court decision, self-insured employers must use the “last injurious exposure” rule, which means that full liability accrues to the employer at the time of the last injurious exposure.

Given the number and complexity of these processes, it is not surprising that the adjudication of occupational disease claims is more difficult than the average injury claim. In particular, determining the liability of multiple employers over several years of potential exposure, setting the wage level appropriate to occupational disease claims that may have involved a gradual onset, and determining the medical facts of the claim can pose significant barriers to the swift adjudication of occupational disease claims.

Specialty Claims Unit for Occupational Disease. While occupational disease claims are not usually distinguished from injury claims for their initial adjudication, there are some occupational disease claims that have been designated for special administrative treatment. These include occupational disease claims that result from chemical or other hazardous exposures, hearing loss claims, and claims involving presumptions for certain occupations, such as firefighters. All these claims are adjudicated by Unit 3, the specialty unit for Chemically Related Illnesses. This unit is staffed with adjudicators who develop special skills in recognizing and dealing with these difficult claims. Claims that are routed to other adjudicators by the automated system are re-routed to this section to insure that they get appropriate consideration.

Hearing loss claims have proven to be a special challenge for all workers’ compensation systems. While the impairment is usually objectively demonstrable, the cause of that impairment or its manifestation in disability is not. Nor is it clear that hearing loss creates the same kind of economic impact that other workers’ compensation cases suffer. And when a voluntarily retired worker submits a claim for hearing loss suffered during his/her former industrial career, there is a tendency for employers to look upon such claims with disapproval. As noted in chapter 3, Washington’s legislature addressed this issue in 2003 (RCW 51.28.055 (2)) by requiring that occupational hearing loss claims must be filed within two years of the date of last injurious exposure for workers to be entitled to partial disability benefits. Claims filed later would be eligible for medical aid benefits only. In practice, this means that workers who can document hazardous noise levels at work (natural and proximate cause) and who file within two years may receive PPD benefits, but others will receive hearing aids and lifetime repairs or replacement only.

Earlier, in 1987, the legislature had recognized an elevated rate of respiratory disease among fire fighters and created a rebuttable presumption that such diseases were occupational diseases (RCW 51.32.185). This presumption was later (2007) expanded to include heart problems experienced within 72 hours of exposure to smoke, fumes, or toxic substances, or experienced within 24 hours of strenuous physical exertion due to fire fighting activities. Certain cancers and infectious diseases are also covered by the presumption, provided that the firefighter

has served at least ten years. Interestingly, the legislature also disallows the presumption in the case of a fire fighter who is a smoker, or who has a history of tobacco use (effective in 2003). The validity of all such claims is adjudicated by the specialty unit for Chemically Related Illnesses.

5 COMPARATIVE ANALYSIS OF STATE POLICY OPTIONS⁷⁴

5.1 Introduction

As a way to cover the issues, we present an inventory of policy features found in state workers' compensation statutes or critical court decisions. We begin with the key terms that determine the scope of workers' compensation system coverage of work-related disease. Then we turn to statutes of limitations and similar timing issues that may serve to restrict the compensability of occupational diseases. We also consider the role of statute in determining the compensability of conditions that may represent pre-existing conditions from the perspective of the employer. We then examine the issue of employer liability when responsibility for the exposure causing a compensable disease may be split among multiple employers. Lastly, we consider the subject of firefighter (and similar occupational) presumptions of coverage.

5.2 Key Definitions Relating Occupational Disease to Employment

The words used to define occupational disease are significant as they enable the state to categorize a condition that may affect eligibility for compensation or the size of any indemnity benefits. For example, considering a claim as an occupational disease rather than an injury by accident can bring into consideration which statute of limitation or notice requirement to apply or what the worker's wage was for purposes of calculating cash benefits.

The definition of an occupational disease is critical also as it will provide a basis on which a claim is accepted or rejected. This section considers the degree to which states follow similar patterns with regard to defining and compensating occupational disease. The material is taken directly from states' statutes, and as such, most of the summaries below do not require additional interpretation by us. We recognize that the state agencies and courts that adjudicate claims may place greater or lesser emphasis on some of these terms.

The section is organized by certain "key terms" that appear to be relatively common in the definitions used by the states. In each instance, we will briefly introduce the term, provide one or more examples of statutory language using the term, and then provide a table that lists the states that use the term in question and a brief section of statute that utilizes the term. Any one of the "key terms" listed here may not be the sole determinant of whether or not a condition is an occupational disease, or is to be accepted or rejected for compensation. In some states as many as four or five of the key terms appear together in the same statute. Generally, this has the effect of increasing the difficulty for workers or their beneficiaries in getting a claim accepted.

5.2.1 Arising Out of and in the Course of Employment

One of the most common terms found in state workers' compensation usage as a test of compensability is that the injury, illness, or disability is one that arose out of and in the course of employment. The following example typifies the language involving the phrase, "arose out of

⁷⁴ The second deliverable for this contract contains several lengthy appendices with precise statutory language from all 50 states for the terms and conditions discussed in this chapter.

and in the course of employment.” Table 5.1 lists states using this condition as applied to occupational disease.

Example: Alabama § 25-5-110. *Definitions. For the purposes of this article, the following terms shall have the meanings respectively ascribed to them by this section: (1) Occupational disease. A disease arising out of and in the course of employment, including....*

Table 5.1 Arises/Arising Out of Employment Language, by State

	Description	Source
AL	(1) Occupational disease. A disease arising out of and in the course of employment, ...	§ 25-5-110
AK	24 ...an occupational disease or infection that arises naturally out of the employment...	Sec. 23.30.395
AR	(4) (A)(ii) An injury causing internal or external physical harm to the body and arising out of and in the course of employment if it is not caused by a specific incident or is not identifiable by time and place of occurrence,	§11-9-102.
DE	(4) “Compensable occupational diseases” includes all occupational diseases arising out of and in the course of employment only when the exposure stated in connection therewith has occurred during employment.	§ 2301
GA	2) “Occupational disease” means those diseases which arise out of and in the course of the particular trade, occupation, process, or employment in which the employee is exposed to such disease, ...	§34-9-280
ID	(22)(b) “Contracted” and “incurred,” when referring to an occupational disease, shall be deemed the equivalent of the term “arising out of and in the course of” employment.	§ 72-102
IL	1.(d) In this Act the term “Occupational Disease” means a disease arising out of and in the course of the employment or which has become aggravated and rendered disabling as a result of the exposure of the employment.	§ 820 ILCS 310/
IN	(a) As used in this chapter, “occupational disease” means a disease arising out of and in the course of the employment.	§ 22-3-7-10
IA	Occupational diseases shall be only those diseases which arise out of and in the course of the employee’s employment.	§ 85A.8
KS	b) “Occupational disease” shall mean only a disease arising out of and in the course of the employment resulting from the nature of the employment	§ 44-5a01
KY	(2) “Occupational disease” means a disease arising out of and in the course of the employment;	§ 342.0011
ME	... “occupational disease” means only a disease that is due to causes and conditions characteristic of a particular trade, occupation, process or employment and that arises out of and in the course of employment.	§ 603
MI	2)(b) “Personal injury” includes a disease or disability that is due to causes and conditions that are characteristic of and peculiar to the business of the employer and that arises out of and in the course of the employment.	§ 418.401.
MN	15.(a) “Occupational disease” means a disease arising out of and in the course of employment	§ 176.011
MS	Compensation shall be payable for disability or death of an employee from injury or occupational disease arising out of and in the course of employment,...	§ 71-3-7

Table 5.1 (Continued)

	Description	Source
MO	1. ...an identifiable disease arising with or without human fault out of and in the course of the employment.	§ 287.020
MT	(23) (a) “Occupational disease” means harm, damage, or death arising out of or contracted in the course and scope of employment...	§ 39-71-116
NV	1. An occupational disease defined in this chapter shall be deemed to arise out of and in the course of the employment if: ...	§ 617.440
NH	XI ... any occupational disease or resulting death arising out of and in the course of employment,...	§ 281-A:2
NJ	a ... “compensable occupational disease” shall include all diseases arising out of and in the course of employment,...	§ 34:15-31
NM*	The occupational diseases defined in Section 52-3-33 NMSA 1978 shall be deemed to arise out of the employment...	§ 52-3-32.
ND	10. “Compensable injury” means an injury by accident arising out of and in the course of hazardous employment.. (Includes occupational diseases.)	§ 65-01-02
OK	10.a. ...any injury or occupational illness, causing internal or external harm to the body, which arises out of and in the course of employment ...	§ 308
OR	(1)(a) ...any disease or infection arising out of and in the course of employment...	656.802
SC	(A) “Occupational disease” means a disease arising out of and in the course of employment	§ 42-11-10
SD	The terms, contracted, and incurred, as used in this chapter when referring to an occupational disease, are the equivalent of the phrase, arising out of and in the course of, as used in the workers’ compensation law.	§ 62-8-3
TN	(a) As used in this chapter, “occupational diseases” means all diseases arising out of and in the course of employment.	§ 50-6-301
TX	(34) “Occupational disease” means a disease arising out of and in the course of employment that causes damage or harm to the physical structure of the body, including a repetitive trauma injury.	§ 401.011
UT	For purposes of this chapter, a compensable occupational disease means any disease or illness that arises out of and in the course of employment and is medically caused or aggravated by that employment.	§ 34A-3-103
VA	A. ...the term “occupational disease” means a disease arising out of and in the course of employment, ...	§ 65.2-400
WA	... arises naturally and proximately out of employment	§ 51.08.140

NOTE: *New Mexico employs the term “arising out of (the employment) but not the term “in the course of.”

5.2.2 (Direct) Causal Connection

Fifteen states include the term causal connection or direct causal connection. Absent a direct causal connection, or simply a causal connection, between a worker’s employment and the disease condition, a claimant will not meet the test of having an occupational disease in one of these states. Causality is likely to be a sterner test than Washington’s “arises naturally and proximately out of employment.”

Example: Georgia. Among several other things a claimant must prove, to the satisfaction of the State Board of Workers' Compensation, "*A direct causal connection between the conditions under which the work is performed and the disease;*" (§ 34-9-280 (2) (A)).

Table 5.2 (Direct) Causal Connection Language, by State

State	Description	Source
AZ	1. There is a direct causal connection between the conditions under which the work is performed and the occupational disease.	§ 23-901.01
CT	The court stated that embodied in the term "occupational disease" in § 31-294c was a requirement of proof of a causal connection between the employment and the disease.	Ricigliano v. Ideal Forging Corp. et al. 280 Conn. 723; 912 A.2d 462.
GA	2. (A) A direct causal connection between the conditions under which the work is performed and the disease;	§34-9-280
IL	A disease shall be deemed to arise out of the employment if there is apparent to the rational mind, upon consideration of all the circumstances, a causal connection between the conditions under which the work is performed and the occupational disease.	§ 820 ILCS 310/1.
IN	(b) A disease arises out of the employment only if there is apparent to the rational mind, upon consideration of all of the circumstances, a direct causal connection between the conditions under which the work is performed and the occupational disease, ...	§ 22-3-7-10
IA	Such diseases shall have a direct causal connection with the employment and...	§ 85A.8
KY	...a causal connection between the conditions under which the work is performed and the occupational disease...	§ 342.0011
MN	15 (a)A disease arises out of the employment only if there be a direct causal connection between the conditions under which the work is performed and if the occupational disease follows...	§ 176.011
MS	...when there is evidence that there is a direct causal connection between the work performed and the occupational disease.	§ 71-3-7.
NV	1.a) There is a direct causal connection between the conditions under which the work is performed and the occupational disease;	§ 617.440.
NM	The occupational diseases defined in Section 52-3-33 NMSA 1978 shall be deemed to arise out of the employment only if there is a direct causal connection between the conditions under which the work is performed and the occupational disease and ...	§ 52-3-32
SC	(6) There is a direct causal connection between the conditions under which the work is performed and the occupational disease	§ 50-6-301.
VA	1. A direct causal connection between the conditions under which work is performed and the occupational disease;	§ 65.2-400
WV	(f) That there is a direct causal connection between the conditions under which work is performed and the occupational disease	§ 23-4-1
WY	(a)(i) There is a direct causal connection between the condition or circumstances under which the work is performed and the injury;(This includes "injuries" which occur over a substantial period of time-Our insertion here)	§ 27-14-603

5.2.3 Proximate or Proximate Cause

Eleven states, see Table 5.3, use the terms proximate or proximate cause as does Washington in its definition. For example,

Example: Colorado § 8-40-201 *Definitions. (14) “Occupational disease” means a disease which results directly from the employment or the conditions under which work was performed, which can be seen to have followed as a natural incident of the work and as a result of the exposure occasioned by the nature of the employment, and which can be fairly traced to the employment as a proximate cause ...*

Table 5.3 Proximate/Proximate Cause Language, by State

State	Description	Source
AZ	A. The occupational diseases as defined by section 23-901, paragraph 13, subdivision (c) shall be deemed to arise out of the employment only if all of the following six requirements exist: 3. The disease can be fairly traced to the employment as the proximate cause.	§23-901
CO	(14) “Occupational disease” means a disease which results directly from the employment or the conditions under which work was performed, which can be seen to have followed as a natural incident of the work and as a result of the exposure occasioned by the nature of the employment, and which can be fairly traced to the employment as a proximate cause and ...	§8-40-201
HI	(a) If an employee suffers personal injury either by accident arising out of and in the course of the employment or by disease proximately caused by or resulting from the nature of the employment, ..	§386-3
IN	(b)... and which can be fairly traced to the employment as the proximate cause,...	§22-3-7-10
KY	and which can be fairly traced to the employment as the proximate cause.	§342.0011
MN	An employer is not liable for compensation for any occupational disease which cannot be traced to the employment as a direct and proximate cause and...	§176.011
NM	...and which can be fairly traced to the employment as the proximate cause.	§52-3-32
NV	1.(c) It can be fairly traced to the employment as the proximate cause; and...	§616A.030
TN	(2) It can be fairly traced to the employment as a proximate cause;	§50-6-301
VA	3. It can be fairly traced to the employment as the proximate cause;	§ 65.2-400.
WA	“Occupational disease” means such disease as arises naturally and proximately out of employment under the mandatory or elective adoption provisions of this title.	§ 51.08.140

5.2.4 Major Contributing Cause

We list major contributing cause here because most of the terms listed above that are taken from the definition of occupational disease serve as requirements of proving that a condition is a compensable occupational disease. The five states that use this terminology are shown in Table 5.4.

Table 5.4 Major Contributing Cause Language, by State

State	Description	Source
FL	(1)(a) ... in no case shall an employer be liable for compensation under the provisions of this section unless such disease has resulted from the nature of the employment in which the employee was engaged under such employer, was actually contracted while so engaged, and the nature of the employment was the major contributing cause of the disease. Major contributing cause must be shown by medical evidence only, as demonstrated by physical examination findings and diagnostic testing.	§ 440.151
MT	(12)(b)...the events occurring on more than a single day or work shift are the major contributing cause of the occupational disease in relation to other factors contributing to the occupational disease.	§ 39-71-407
OR	(2)(a) The worker must prove that employment conditions were the major contributing cause of the disease. (b) If the occupational disease claim is based on the worsening of a preexisting disease or condition pursuant to ORS 656.005 (7), the worker must prove that employment conditions were the major contributing cause of the combined condition and pathological worsening of the disease.	§ 656.802
LA	“In a workers’ compensation case, the “overwhelming preponderance of evidence” standard requires a claimant to produce evidence of a causal relationship between her disease and her employment...	Killett v. Sanderson Farms, La. App. 2001-0277, 818 So. 2d 853, 2002 La. App. LEXIS 1351 La.App. May 2002
SD	(7)(b) If the injury combines with a preexisting disease or condition to cause or prolong disability, impairment, or need for treatment, the condition complained of is compensable if the employment or employment related injury is and remains a major contributing cause of the disability, impairment, or need for treatment.	§ 62-1-1

When a condition is perceived as having multiple causes, the law must consider whether or not to apportion those. If the contributions of multiple causes are to be considered, how are benefits to be affected? Also, a disease may be attributable to a single cause, but any resulting disability or degree of disability may be affected by a pre-existing condition. Several states have included this terminology with the result that it erects a barrier to some claimants with conditions having multiple causes. Following is an example:

Example: Florida § 440.151 “...*in no case shall an employer be liable for compensation under the provisions of this section unless such disease has resulted from the nature of the employment in which the employee was engaged under such employer, was actually contracted while so engaged, and the nature of the employment was the major contributing cause of the disease. Major contributing cause must be shown by medical evidence only, as demonstrated by physical examination findings and diagnostic testing.*”

In **Oregon** there is a clear and simple statement of position:

(A) *No injury or disease is compensable as a consequence of a compensable injury unless the compensable injury is **the major contributing cause of the consequential condition.***
§656.005 (7)(a)

Major contributing cause is found in the statutes of a few other states. For example, the following is from **Montana**:

- (12) *An insurer is liable for an occupational disease only if the occupational disease:*
- (a) *is established by objective medical findings; and*
 - (b) *arises out of or is contracted in the course and scope of employment. An occupational disease is considered to arise out of or be contracted in the course and scope of employment if the events occurring on more than a single day or work shift are the major contributing cause of the occupational disease in relation to other factors contributing to the occupational disease. §39-71-407*

South Dakota requires proof of a major contributing cause in cases involving pre-existing disease:

- (b) *If the injury combines with a preexisting disease or condition to cause or prolong disability, impairment, or need for treatment, the condition complained of is compensable if the employment or employment related injury is and remains a major contributing cause of the disability, impairment, or need for treatment. §62-1-1-(7)*

Louisiana does not use the term major contributing cause. However, we include it in Table 5.4 as it seems to set a barrier to claim acceptance that is at least comparable.

5.2.5 Major, Significant, or Primary Cause

”Major contributing cause” is an important component of the law in some states, but it should be noted that other states may achieve the same outcomes with alternative language. Terms such as “primary cause,” “significant cause” or “predominant cause” for example, may be as limiting to applicants as “major contributing cause” (see the eight states shown in Table 5.5).

The following text box gives two examples of statutory language:

Example: Maine, MRS 39 §201 states: *If a work related injury aggravates, accelerates or combines with a preexisting physical condition, any resulting disability is compensable only if contributed by the employment in a significant manner.*

Oklahoma has a “major cause” requirement: §308. 10. a. *“Compensable injury” means any injury or occupational illness, causing internal or external harm to the body, which arises out of and in the course of employment if such employment was the major cause of the specific injury or illness.*

Table 5.5 Major, Predominant, Significant, or Prevailing Cause Language, by State

State	Description	Source
AR	ii. ...the burden of proof shall be by a preponderance of the evidence, and the resultant condition is compensable only if the alleged compensable injury is the <u>major cause</u> of the disability or need for treatment.	§11-9-102 (4)(A)
LA	(ii). ...was the predominant and major cause of the heart-related or perivascular injury, illness, or death	§23:1021
OK	c. “Compensable injury” shall not include the ordinary, gradual deterioration or progressive degeneration caused by the aging process, unless the employment is a <u>major cause of the deterioration</u> or degeneration ... (Injury includes disease)	§ 308 10.
MA	Personal injuries shall include mental or emotional disabilities only where the <u>predominant contributing cause of</u> such disability is an event or series of events occurring within any employment. If a compensable injury or disease combines with a pre-existing condition, which resulted from an injury or disease not compensable under this chapter, to cause or prolong disability or a need for treatment, the resultant condition shall be compensable only to the extent such compensable injury or disease remains a <u>major but not necessarily predominant cause of disability</u>	§ 1. (7A)
MI	Mental disabilities and conditions of the aging process, including but not limited to heart and cardiovascular conditions, and degenerative arthritis shall be compensable if contributed to or aggravated or accelerated by the employment in a <u>significant manner</u> .	§ 418.401. (2)(b)
MO	2. An injury by occupational disease is compensable only if the occupational exposure was the <u>prevailing factor</u> in causing both the resulting medical condition and disability. The “ <u>prevailing factor</u> ” is defined to be the <u>primary factor, in relation to any other factor</u> , causing both the resulting medical condition and disability.	§ 287.067.
MS	1. ... occupational disease is compensable only if the occupational exposure was the <u>prevailing factor</u> in causing both the resulting medical condition and disability. The “ <u>prevailing factor</u> ” is defined to be the <u>primary factor</u> , ...	§ 287.067.
NV	...unless the insurer can prove by a preponderance of the evidence that the occupational disease is not a substantial contributing cause of the resulting condition	§ 617.366

In Arkansas, major cause is explicitly defined; “Major cause” means more than fifty percent (50%) of the cause. (§11-9-102 (14))

Additionally, this group of terminologies need not always constrain claimants seeking benefits. In at least one case the restriction appears to constrain the employer/insurer. In **Nevada**:

§617.366 1. The resulting condition of an employee who:(a) Has a preexisting condition from a cause or origin that did not arise out of and in the course of the employee's current or past employment; and (b) Subsequently contracts an occupational disease which aggravates, precipitates or accelerates the preexisting condition, shall be deemed to be an occupational disease that is compensable pursuant to the provisions of chapters 616A to 617, inclusive, of NRS, unless the insurer can prove by a preponderance of the

evidence that the occupational disease is not a substantial contributing cause of the resulting condition.

Massachusetts uses major cause (without “contributing”) language that is not entirely obvious in its application:

Art1 §7(a) If a compensable injury or disease combines with a pre-existing condition, which resulted from an injury or disease not compensable under this chapter, to cause or prolong disability or a need for treatment, the resultant condition shall be compensable only to the extent such compensable injury or disease remains a major but not necessarily predominant cause of disability or need for treatment.

5.2.6 Incidental to the Business

Eleven states require that in order for a condition to be considered an occupational disease, it must have been incidental to the business or employment. These are listed in Table 5.6.

Table 5.6 “Incidental to the Character of Business” Language, by State

State	Description	Source
AZ	A.5.The disease is incidental to the character of the business...	§ 23-901.01.
IN	(b) The disease must be incidental to the character of the business....	§ 22-3-7-10
IA	Such disease must be incidental to the character of the business, occupation or process....	§ 85A.8
KY	3.The occupational disease shall be incidental to the character of the business...	§ 342.0011
NV	2. The disease must be incidental to the character of the business....	§ 617.440
NM	The disease must be incidental to the character of the business....	§ 52-3-32
ND	(1)The disease must be incidental to the character of the business....	§ 65-01-02 a
TN	(4) It is incidental to the character of the employment....	§ 50-6-301
VA	5. It is incidental to the character of the business....	§ 65.2-400
WV	(5) ...that it is incidental to the character of the business....	§ 23-4-1
WY	(v) The injury is incidental to the character of the business....	§ 27-14-102

5.2.7 Naturally or Natural Incident

Twenty-one states including Washington explicitly require that the disease arises naturally or as a natural incident of the employment. These are shown in Table 5.7.

Example: Alaska § Sec. 23.30.395. *Definitions ...an occupational disease or infection that arises naturally out of the employment or that naturally or unavoidably results from an accidental injury.*

Table 5.7 Naturally/Natural Incident Language, by State

State	Description	Source
AK*	24 ...an occupational disease or infection that arises naturally out of the employment or that naturally or unavoidably results from an accidental injury;	Sec. 23.30.395.
AZ	2. The disease can be seen to have followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment.	§ 23-901.01
CO	14. ...which can be seen to have followed as a natural incident of the work...	§ 8-40-201
DE*	15. “Injury” and “personal injury” mean violence to the physical structure of the body, such disease or infection as naturally results directly therefrom when reasonably treated...	§ 2301.
GA	(2)(B) That the disease followed as a natural incident of exposure by reason of the employment;	§ 34-9-280
IN	(b)... and which can be seen to have followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment,...	§ 22-3-7-10
IA	Such diseases shall have a direct causal connection with the employment and must have followed as a natural incident thereto...	§ 85A.8
KY	3 ...and which can be seen to have followed as a natural incident to the work...	§ 342.0011
MN	(a)...and if the occupational disease follows as a natural incident of the work as a result of the exposure occasioned by the nature of the employment.	§ 176.011 Subd. 15.
NE*	(4) Injury and personal injuries mean only violence to the physical structure of the body and such disease or infection as naturally results therefrom and...	§ 48-151
NV	(b) It can be seen to have followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment;	§ 617.440
NM	... and which can be seen to have followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment...	§ 52-3-32
NC*	6 ...not include a disease in any form, except where it results naturally and unavoidably from the accident.	§ 97-2
NY	... which produce disease as natural incident of particular occupation,....	Article 3 § 39.
SC	(A)(4) is one of the ordinary diseases of life to which the general public is equally exposed, unless such disease follows as a complication and a natural incident of an occupational disease...	§ 42-11-10
TN	(1) It can be determined to have followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment;	§ 50-6-301
TX*	(34) The term includes a disease or infection that naturally results from the work-related disease.	§ 401.011.
VA	B.2. It can be seen to have followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment;	§ 65.2-400
WA*	“Occupational disease” means such disease or infection as arises naturally and proximately out of employment under the mandatory or elective adoption provisions of this title.	§ 51.08.140
WV	(f)(2) that it can be seen to have followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment;	§ 23-4-1
WY	(ii) The injury can be seen to have followed as a natural incident of the work as a result of the employment; (Injury here involves those which occur over a substantial period of time-our insertion)	§ 27-14-102

*Key term in these states is “Naturally” and not “Natural Incident.”

5.2.8 Peculiar to (a Trade, Occupation, or Equivalent)

Eighteen states use the words peculiar to in their definition of occupational disease. (See Table 5.8.) We view the phrase as equivalent to others such as “incidental to the business” and others that are frequently found in occupational disease statutes.

Example: Idaho §72-102 (22)(a) *“Occupational disease means a disease due to the nature of an employment in which the hazards of such disease actually exist, are characteristic of and peculiar to the trade, occupation, process or employment ...”*

Table 5.8 “Peculiar To” Language, by State

State	Description	Source
AL	(1) Occupational disease. ...and is peculiar to the occupation in which the employee is engaged.	§ 25-5-110
AZ	13 c) An occupational disease which is due to causes and conditions characteristic of and peculiar to a particular trade, occupation, process or employment,	§ 23-901
AR	An occupational disease is one that is due to causes and conditions characteristic of and peculiar to a particular employment, and not the ordinary diseases to which the general public is exposed.	§ 23-901(12)(c)
CT	(15) “Occupational disease” includes any disease peculiar to the occupation in which the employee was engaged	Sec. 31-275
FL	(2) ...the term “occupational disease” shall be construed to mean only a disease which is due to causes and conditions which are characteristic of and peculiar to a particular trade, occupation, process, or employment,	§ 440.151
ID	(22)(a) “Occupational disease” means a disease due to the nature of an employment in which the hazards of such disease actually exist, are characteristic of, and peculiar to the trade, occupation, process, or employment,....	§72-102
IL	(d) In this Act the term “Occupational Disease” means a disease arising out of and in the course of the employment or which has become aggravated and rendered disabling as a result of the exposure of the employment. Such aggravation shall arise out of a risk peculiar to or increased by the employment and not common to the general public.	§ 820 ILCS 310/1.
KS	b) ...that to the occupation, trade or employment in which the employee was engaged, there is attached a particular and peculiar hazard of such disease which distinguishes the employment from other occupations and employments,	§ 44-5a01
LA	B. An occupational disease means only that disease or illness which is due to causes and conditions characteristic of and peculiar to the particular trade, occupation, process, or employment in which the employee is exposed to such disease.	§ 23:1031.1
ME*	... the term “occupational disease” means only a disease that is due to causes and conditions characteristic of a particular trade, occupation, process or employment	§ 603.
MI	(2)(b) “Personal injury” includes a disease or disability that is due to causes and conditions that are characteristic of and peculiar to the business of the employer ...	§ 418.401.
MN	Subd. 15. (a) ... peculiar to the occupation in which the employee is engaged and due to causes in excess of the ordinary hazards of employment and shall include undulant fever.	§ 176.011

Table 5.8 (Continued)

State	Description	Source
NE	(3) Occupational disease means only a disease which is due to causes and conditions which are characteristic of and peculiar to a particular trade, occupation, process, or employment	§ 48-151.
NH	XIII. ... due to causes and conditions characteristic of and peculiar to the particular trade, occupation or employment.	§281-A:2
NJ	a.due in a material degree to causes and conditions which are or were characteristic of or peculiar to a particular trade, occupation, process or place of employment.	§ 34:15-31.
PA	(2)c) ...shall be paid only when such occupational disease is peculiar to the occupation or industry in which the employee was engaged	77 P.S. § 1401
SC	(A) ... that is due to hazards in excess of those ordinarily incident to employment and is peculiar to the occupation in which the employee is engaged. A disease is considered an occupational disease only if caused by a hazard recognized as peculiar to a particular trade, process, occupation, or employment peculiar to the particular employment by a preponderance of the evidence.	§ 42-11-10.
VT	(23) “Occupational disease” means a disease that results from causes and conditions characteristic of and peculiar to a particular trade, occupation, process or employment,....	§ 601.

NOTE: *We equate the term “characteristic of” with “peculiar to.”

5.2.9 The Nature of the Employment

One could consider that including the nature of the employment is essentially the same as “peculiar to the employment” above. Yet a number of the states that incorporate the term in the definition of an occupational disease use both phrases in the definition so that some distinction between the two apparently exists. It may serve to give emphasis to the legislation’s intent, that is, that the disease must not be one that is found in all employments, as shown in Table 5.9.

Example: New York Art. 3 § 39 *“To be considered an occupational disease, it is only necessary that the illness be one resulting from the nature of employment, brought about by conditions to which all employees of class are subjected, which produce disease as natural incident of particular occupation.”*

Table 5.9 Nature of the Employment Language, by State

State	Description	Source
AR	(g) (1)(A) The disease is due to the nature of an employment in which the hazards of the disease actually exist	§ 11-9-601
CO	(14) ...as a result of the exposure occasioned by the nature of the employment,...	§ 8-40-201
FL	1 (a) ... and the nature of the employment was the major contributing cause of the disease.	§ 440.151.
HI	(a)...by disease proximately caused by or resulting from the nature of the employment...	§ 386-3.

Table 5.9 (Continued)

State	Description	Source
ID	22 (a) "Occupational disease" means a disease due to the nature of an employment in which the hazards of such disease actually exist, ...	§72-102
IN	(b) ... as a natural incident of the work as a result of the exposure occasioned by the nature of the employment, ...	§ 22-3-7-10
IA	...must have followed as a natural incident thereto from injurious exposure occasioned by the nature of the employment.	§ 85A.8
KS	b) ... only a disease arising out of and in the course of the employment resulting from the nature of the employment in which the employee was engaged...	§ 44-5a01
KY	(3) ...seen to have followed as a natural incident to the work as a result of the exposure occasioned by the nature of the employment...	§ 342.0011
MD	(d)(1) (i) is due to the nature of an employment in which hazards of the occupational disease exist	
MA	...if the nature of the employment is such that the hazard of contracting such diseases by an employee is inherent in the employment.	§ 1 (7A)
MN	15 (a) ...the occupational disease follows as a natural incident of the work as a result of the exposure occasioned by the nature of the employment.	§ 176.011
NM	followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment	§ 52-3-32
NY	To be considered occupational disease, it is only necessary that illness be one resulting from nature of employment,...	Tinelli v Ken Duncan, Ltd. (1993, 3d Dept) 199 App Div 2d 567, 604 NYS2d 641.
RI	...unless that occupational disease is due to the nature of his or her employment	§ 28-34-4
TN	(a)(1) ... to have followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment;...	§ 50-6-301
VA	B.2. ...followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment;	§ 65.2-400
WA	Disease or infection arises naturally ... out of employment	§ 51.08.140
WV	(f) (2) that it can be seen to have followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment; ...	§ 23-4-1
WY	(xi) (A) ...unless the risk of contracting the illness or disease is increased by the nature of the employment;	§ 27-14-102

5.3 Key Terms Limiting the Definition of Occupational Disease

5.3.1 No Ordinary Disease of Life

In defining occupational disease, the 18 states listed in Table 5.10 explicitly exclude ordinary diseases of life or a nearly equivalent phrase. We have included in the 18 a few states that use a term such as "to which the public is equally exposed" or some close variant of that terminology.

Table 5.10 Ordinary Disease of Life/Equally Exposed/General Public Language, by State

State	Description	Source
AZ	13 c) An occupational disease which is due to causes and conditions characteristic of and peculiar to a particular trade, occupation, process or employment, and not the ordinary diseases to which the general public is exposed, and subject to.	§ 23-901
CO	(14) “Occupational disease” means a disease which results directly from the employment or the conditions under which work was performed, which can be seen to have followed as a natural incident of the work and as a result of the exposure occasioned by the nature of the employment, and which can be fairly traced to the employment as a proximate cause and which does not come from a hazard to which the worker would have been equally exposed outside of the employment.	§ 8-40-201.
CT	(15) “Occupational disease” includes any disease peculiar to the occupation in which the employee was engaged and due to causes in excess of the ordinary hazards of employment	Sec. 31-275
FL	(2) Whenever used in this section the term “occupational disease” shall be construed to mean only a disease which is due to causes and conditions which are characteristic of and peculiar to a particular trade, occupation, process, or employment, and to exclude all ordinary diseases of life to which the general public is exposed, unless the incidence of the disease is substantially higher in the particular trade, occupation, process, or employment than for the general public.	§ 440.151.
IL	(d) In this Act the term “Occupational Disease” means a disease arising out of and in the course of the employment or which has become aggravated and rendered disabling as a result of the exposure of the employment. Such aggravation shall arise out of a risk peculiar to or increased by the employment and not common to the general public.	§ 820 ILCS 310/1.
IN	Ordinary diseases of life to which the general public is exposed outside of the employment shall not be compensable, except where such diseases follow as an incident of an occupational disease as defined in this section. ...and which does not come from a hazard to which workers would have been equally exposed outside of the employment.	§22-3-7-10
IA	A disease which follows from a hazard to which an employee has or would have been equally exposed outside of said occupation is not compensable as an occupational disease.	§ 85A.8
KS	Ordinary diseases of life and conditions to which the general public is or may be exposed to outside of the particular employment, and hazards of diseases and conditions attending employment in general, shall not be compensable as occupational diseases	§ 44-5a01
MI	An ordinary disease of life to which the public is generally exposed outside of the employment is not compensable.	§ 418.401.
MN	Ordinary diseases of life to which the general public is equally exposed outside of employment are not compensable, except where the diseases follow as an incident of an occupational disease, or where the exposure peculiar to the occupation makes the disease an occupational disease hazard.	§ 176.011 (15)
MO	Ordinary diseases of life to which the general public is exposed outside of the employment shall not be compensable, except where the diseases follow as an incident of an occupational disease as defined in this section.	§ 287.067

Table 5.10 (Continued)

State	Description	Source
NE	(3) Occupational disease means only a disease which is due to causes and conditions which are characteristic of and peculiar to a particular trade, occupation, process, or employment and excludes all ordinary diseases of life to which the general public is exposed	§ 48-151.
NV	1. (d) It does not come from a hazard to which workers would have been equally exposed outside of the employment.	§ 617.440.
NC	...but excluding all ordinary diseases of life to which the general public is equally exposed outside of the employment.	§ 97-53 (13)
OH	the employment creates a risk of contracting the disease in greater degree and in a different manner from the public in general.	§ 4123.01(F)
PA	(3) which are not common to the general population.	§ 1208 (n)
SC	(4) is one of the ordinary diseases of life to which the general public is equally exposed, unless such disease follows as a complication and a natural incident of an occupational disease or unless there is continuous exposure peculiar to the occupation itself which makes such disease a hazard inherent in such occupation;	§ 42-11-10 (B)
VA	C. Hearing loss and the condition of carpal tunnel syndrome are not occupational diseases but are ordinary diseases of life as defined in § 65.2-401. An ordinary disease of life to which the general public is exposed outside of the employment may be treated as an occupational disease for purposes of this title if each of the following elements is established by clear and convincing evidence, (not a mere probability): (Several conditions follow)	§ 65.2-400 and §65.2-401

At least two elements of this terminology need to be noted. First, beyond being an element in the definition, by identifying a condition as an “ordinary disease of life,” it may also categorize it as a non-compensable condition. However, some states that have made ordinary diseases non-compensable, may allow them to be compensable if special tests are applied to them, enabling them to be compensated in selective instances. The following gives an example.

Example: Indiana § 22-3-7-10(a) “*As used in this chapter, ‘occupational disease’ means a disease arising out of and in the course of the employment. Ordinary diseases of life to which the general public is exposed outside of the employment shall not be compensable, except where such diseases follow as an incident of an occupational disease as defined in this section.*”

Virginia’s statute considers “*an ordinary disease of life to which the general public is exposed outside the employment*” as not being an occupational disease (§ 65-2-400). There is a rather lengthy list that follows of special conditions to be met before an “ordinary disease of life” can be compensable (§ 65-2-401).

5.3.2 Aging

Eight states specifically mention that an occupational disease is not a condition that results from the aging process. (In Ohio’s statute the word “aging” does not appear but there is no mistaking the intent. Therefore, we include Ohio among the states in Table 5.11). The

absence of the term from other state statutes does not mean they are willing to accept disease conditions that may result from aging. Other elements in the definition are likely seen as sufficient to convey legislative intent.

Table 5.11 Diseases of Aging Language, by State

State	Description	Source
KY	1. "Injury" does not include the effects of the natural aging process,... (Includes O.D. and cumulative trauma)	§ 342.0011
MI	(2)(b) Mental disabilities and conditions of the aging process, including but not limited to heart and cardiovascular conditions, and degenerative arthritis shall be compensable if contributed to or aggravated or accelerated by the employment in a significant manner.	§ 418.401.
MO	2. Ordinary, gradual deterioration or progressive degeneration of the body caused by aging or by the normal activities of day-to-day living shall not be compensable.	§ 287.067.
NH	XI. Conditions of the aging process, including but not limited to heart and cardiovascular conditions, shall be compensable only if contributed to or aggravated or accelerated by the injury. (Injury includes OD)	§ 281-A:2
NJ	b. Deterioration of a tissue, organ or part of the body in which the function of such tissue, organ or part of the body is diminished due to the natural aging process thereof is not compensable.	§ 34:15-31
OH	(2) Injury or disability caused primarily by the natural deterioration of tissue, an organ, or part of the body;	§ 4123.01
OK	10.c. "Compensable injury" shall not include the ordinary, gradual deterioration or progressive degeneration caused by the aging process, unless the employment is a major cause of the deterioration or degeneration.	§ 308.
WY	"Injury" does not include: (G) Any injury resulting primarily from the natural aging process...	§ 27-14-102

5.4 Key Terms Relating to Standards of Proof

5.4.1 A Rational Mind/Reasonable to Conclude

Seven states, shown in Table 5.12, impose as a requirement that the occupational disease be apparent as such to the rational mind.

Example: Indiana § 22-3-7-10 (b) *“A disease arises out of the employment only if there is apparent to the rational mind, upon consideration of all of the circumstances, a direct causal connection between the conditions under which the work is performed and the occupational disease, and...”*

Table 5.12 Rational/Reasonable Language, by State

State	Description	Source
IL	(d) A disease shall be deemed to arise out of the employment if there is apparent to the rational mind, upon consideration of all the circumstances, a causal connection between the conditions under which the work is performed and the occupational disease.	§ 820 ILCS 310/1.
IN	(b) A disease arises out of the employment only if there is apparent to the rational mind, upon consideration of all of the circumstances, a direct causal connection between the conditions under which the work is performed and the occupational disease,	§ 22-3-7-10.
KY	(3) An occupational disease as defined in this chapter shall be deemed to arise out of the employment if there is apparent to the rational mind, upon consideration of all the circumstances, a causal connection between the conditions under which the work is performed and the occupational disease,	§ 342.0011
MD	(d)(2) on the weight of the evidence, it reasonably may be concluded that the occupational disease was incurred as a result of the employment of the covered employee	§ 9-502
MO	(2) An injury shall be deemed to arise out of and in the course of the employment only if: (a) It is reasonably apparent, upon consideration of all the circumstances, that the accident is the prevailing factor in causing the injury;	§ 287.020.
VA	B. A disease shall be deemed to arise out of the employment only if there is apparent to the rational mind, upon consideration of all the circumstances:...	§ 65.2-400
WV	(f) ...a disease shall be considered to have been incurred in the course of or to have resulted from the employment only if it is apparent to the rational mind, upon consideration of all the circumstances: ...	§ 23-4-1

5.5 Other Issues

Thus far, we have shown 12 tables that indicate some relatively common features of state statutes regarding the nature of what is or is not an occupational disease. Other very common features of state laws are two provisions in most statutes that deal with disallowances of occupational disease claims. The example shown here tracks very closely to the language employed in many other states.

Example: Kentucky KRS § 342.316

(7) *No compensation shall be payable for occupational disease if the employee at the time of entering the employment of the employer by whom compensation would otherwise be payable, falsely represented himself or herself, in writing, as not having been previously disabled, laid off, or compensated in damages or otherwise, because of the occupational disease, or failed or omitted truthfully to state to the best of his or her knowledge, in answer to written inquiry made by the employer, the place, duration, and nature of previous employment, or, to the best of his or her knowledge, the previous state of his or her health.*

(8) *No compensation for death from occupational disease shall be payable to any person whose relationship to the deceased, which under the provisions of this chapter would give right to compensation, arose subsequent to the beginning of the first compensable disability, except only for after-born children of a marriage existing at the beginning of such disability.*

One other set of restrictions to receiving workers' compensation benefits that is commonly found are statutes or rules that deal with injuries or diseases involving the use of alcohol or drugs. The language of these limitations varies more on a state to state basis than those shown above.

We conclude this section by pointing out that our focus has been on occupational diseases generally. We have not listed all the applications of these terms or requirements for compensability as they apply to specific conditions. A majority of states have special requirements for compensability that apply to individual diseases—be they defined as injuries or diseases. Listing each of these special restrictions or conditions would be beyond the scope of this report.

6 RECENT CHANGES IN STATE STATUTES PERTAINING TO OCCUPATIONAL DISEASES

6.1 Introduction

The purpose of this chapter is to summarize the major legislative changes that have occurred in recent years regarding occupational diseases. The material below covers legislation enacted in the states during the years 1999 to 2011. While the changes cited here certainly do not constitute a set of policy recommendations, they do constitute a window into recent legislative priorities in this area. Generally, newer provisions restrict access to benefits in an attempt to reduce employer costs of workers' compensation. However, we want to emphasize that each jurisdiction is unique and the focus of policy changes reflects that individuality.

In our view, the changes noted here are significant, although it remains to be seen whether time will show them to be important. Several states have had very significant changes in their workers' compensation laws during this time period; yet left occupational diseases and some closely related issues barely modified or completely unchanged. In our view, there have been four states that substantially changed their laws over this period. These are Florida, Kansas, Missouri, and South Carolina. We describe these and others that warrant attention in the following sections. Where we were in doubt about whether or not a change is to be considered significant, we included it in the discussion.

We have not counted all changes that were made in occupational disease legislation over these 13 years, but they are likely to have exceeded several hundred. The very large majority of them concerned presumptions of compensability. Historically, firefighters have been especially likely to be beneficiaries of presumptive legislation. In many instances, the recent amendments extended an existing presumption to occupations or groups of workers that were previously not covered. In most of these cases, the workers were involved in some public safety work or health care employment.

In other instances, the law changes gave presumptive protection to cover additional diseases or conditions for workers who already had some protection. For example, some occupations that were already covered by a presumption that applied to one form of cancer might have other forms of the disease added by new legislation. Or as Lyme disease became a more significant threat to workers engaged in outdoor activities, the presumption was extended to them. In all these cases, the covered workers were in the public sector.

In the material that follows we classify the changes according to the main subject areas that they impact. Where legislation has multiple impact areas, it is listed multiple times. Thus each subject area list is designed to be an index of recent workers' compensation legislation on occupational disease in the states. States are listed in alphabetical order and changes are in chronological order.

6.2 Definitions/Compensability Conditions

Florida-1999. As a condition for compensability for mental or nervous injuries, there must be a physical injury that requires medical treatment, and it must be the major contributing cause. The injury must be demonstrated by clear and convincing evidence.

Florida-2003. The law on occupational disease and repetitive trauma was tightened. It required claimants to show by clear and convincing evidence, both causation and sufficient exposure to support causation. The law previously had been that a mental or stress claim was not compensable except in cases where there was a physical trauma. A physical condition resulting from a stress or mental condition was not compensable. A mental injury that accompanied a physical injury could be compensable; however, the 2003 legislation required that the physical injury be the major contributing cause.

Michigan-2011. The Michigan statute was substantially amended at the end of 2011, but only two changes appear to have specifically targeted occupational disease. Both deal with compensability as well as other issues. The change, the underlined words here, reads,

Mental disabilities are compensable if arising out of actual events of employment, not unfounded perceptions thereof, and if the employee's perception of the actual events is reasonably grounded in fact or reality.

The same section of the statute also was amended to add the three underlined words to the existing statute:

Mental disabilities and conditions of the aging process, including but not limited to heart and cardiovascular conditions, and degenerative arthritis, shall be compensable if contributed to or aggravated or accelerated by the employment in a significant manner.

Missouri-2005. The definition of a compensable injury was modified, indirectly bearing on the definition of occupational disease. A compensable injury is one that arises out of and in the course of employment. An injury by accident is compensable only if the accident was the prevailing (primary) factor in causing both the resulting medical condition and the disability. "Prevailing factor" replaced the "substantial factor" standard adopted in 1993. The prevailing factor standard was incorporated into the definition of occupational disease claims as well. Now, occupational disease due to repetitive motion is compensable only if the occupational exposure was the prevailing factor in causing both the resulting medical condition and the disability. The "prevailing factor" is defined to be the "primary factor," greater than any other factor, causing both the resulting medical condition and the disability.

New Hampshire-2001. Mimicking the statutes of many other jurisdictions, in 2001 the state ruled out compensation for mental injuries that were a result of disciplinary or other employer action taken in good faith.

Oklahoma-2005. Oklahoma made a number of changes in its statute including several relating to occupational disease. A “compensable injury” (which includes both injury and occupational illness) is one causing internal or external harm to the body, that arises out of and in the course of employment, and where the employment was the major cause of the specific injury or illness. An injury, other than cumulative trauma, is compensable only if caused by a specific incident and is identifiable by time, place, and occurrence, unless it is defined as compensable elsewhere in the statute.

A compensable injury means a cardiovascular, coronary, pulmonary, respiratory or cerebrovascular accident or myocardial infarction causing injury, illness, or death, only if, in relation to other factors contributing to the physical harm, a work-related activity is the major cause of the physical harm. Such an injury shall not be compensable unless it is shown that the exertion of the work necessary to precipitate the disability or death was extraordinary and unusual in comparison to the usual work of the employee, or alternatively, that some unusual incident occurred which is found to have been the major cause of the physical harm.

Oklahoma-2011. Six years later, Oklahoma amended its law again. “Cumulative trauma” was defined as a compensable injury that is repetitive in nature and engaged in over a period of time, the major cause of which results from employment activities, and proved by objective medical evidence. “Major cause” means more than 50 percent of the resulting injury, disease, or illness. A finding of major cause shall be established by a preponderance of evidence. A finding that the workplace was not a major cause of the injury, disease, or illness is not to adversely affect the exclusive remedy provisions of the act and shall not create a separate cause of action outside of the act. An occupational disease arises out of the employment only if the employment was the major cause of the resulting occupational disease and such is supported by “objective medical evidence” as defined in the statute. (See Oklahoma under Proof/Evidentiary Issues below).

Oregon-2001. As a follow-up to controversy over previous amendments, Oregon placed some limits on civil actions pursued by workers with rejected claims for workers’ compensation. The worker is entitled to seek damages under tort law for a work-related injury that was determined to be not compensable because the worker failed to establish that the work-related incident was the major contributing cause of the injury, but only after an order determining that the claim is not compensable has become final. Such action must commence either two years from the date of injury, or 189 days from the date of the order affirming that the claim was not compensable on such grounds, whichever comes later.

South Carolina-2007. Repetitive trauma was defined as an injury that is gradual in onset and cause and is the cumulative effect of repetitive traumatic events. (The definition was used in creating an evidentiary requirement. See below.) The law change also defined how claims for mental injuries, illness, or stress that are aggravated by physical injury are to be compensated. (See below under “Evidentiary/Proof.”) Stress-related mental injuries, heart attacks, strokes, embolisms and aneurisms are not compensable if they result from events that are incidental to normal employer-employee relations.

South Dakota-1999. For an injury to be compensable, the employment or employment-related activity must have been a major contributing cause. Injury does not include a mental injury arising from emotional, mental or nonphysical stress or stimuli.

Tennessee-1999. A compensable mental injury was defined. It occurred when the proximate cause is a compensable physical injury resulting in permanent disability or an identifiable work-related event resulting in a sudden or unusual mental stimulus.

Tennessee-2011. Cumulative trauma conditions, hearing loss, carpal tunnel syndrome, and all other repetitive motion conditions shall not be considered an occupational disease unless such conditions arose primarily out of and in the course and scope of employment. (Also see “Presumptions” below.)

6.3 Proof/Evidentiary Issues

A number of the changes made in occupational disease legislation since 1999 sought to change the standards of proof in occupational disease claims for workers’ compensation benefits. Generally, these tended either to clarify or to tighten those standards, making it somewhat less likely that claims would be accepted.

Arkansas-2011. In these amendments, the burden of proof in occupational disease cases was reset to be the “preponderance of evidence” rather than the previously employed “clear and convincing” standard for purposes of finding a causal connection between employment and the occupational disease.

Florida-1999. The statute’s amendments modified the standard of proof in injury by accident and in occupational diseases including repetitive trauma cases. In occupational disease and repetitive exposure claims, both causation and sufficient exposure in support of causation must be proven by clear and convincing evidence. For mental and nervous injury cases, a physical injury that requires medical treatment must be the major contributing cause; and the need for treatment for the mental condition due to the physical injury must be demonstrated by clear and convincing evidence. In addition to other restrictions in the law, to be considered a covered occupational disease, there needs to be an epidemiological study showing that exposure to the specific substance involved, at the levels to which the employee was exposed, can cause the precise disease sustained by the employee. Major contributing cause can only be shown by physical examination findings and diagnostic testing.

Missouri-2005. The amendments to the law emphasized the importance of objective medical findings as opposed to subjective medical complaints. Claims need to be substantiated by demonstrable medical findings and diagnostic tests.

Oklahoma-2005. Amendments required that a compensable injury or illness must be established by objective medical evidence. The employee has the burden of proof to demonstrate by a preponderance of evidence that such unexpected or unforeseen condition was in fact caused by the employment.

Oklahoma-2011. Amendments sought to toughen the standards for medical evidence. Medical opinions supporting employment as the major cause of occupational disease or age-related deterioration or degeneration must be supported by objective medical evidence. “Objective medical evidence” means evidence that meets the criteria of Federal Rule of Evidence 702 and all U.S. Supreme Court case law applicable thereto. Objective findings are those findings that cannot come under the voluntary control of the patient. When determining physical or anatomical impairment, neither a physician, any other medical provider, a judge of the Workers’ Compensation Court, nor the courts may consider complaints of pain. For the purpose of making physical or anatomical impairment ratings to the spine, physicians shall use criteria established by the American Medical Association guides or modifications thereto as approved by the Legislature. Objective evidence necessary to prove physical or anatomical impairment in occupational hearing loss cases shall be established by medically-recognized and accepted clinical diagnostic methodologies, including, but not limited to, audiological tests that measure air and bone conduction thresholds and speech discrimination ability. Medical opinions addressing compensability and permanent impairment must be stated within a reasonable degree of medical certainty. Objective medical evidence is defined in the statute to include medical testimony that rests on reliable scientific, technical, or specialized knowledge and assists the Court to understand the evidence or to determine a fact in issue.⁷⁵

South Carolina-2007. The law defined repetitive trauma and required, in such claims, that causation must be supported by medical evidence. Medical evidence means expert opinion to a reasonable medical certainty by a licensed and qualified medical physician. Stress-related mental injury or mental illness is not considered a personal injury unless the worker proves with a preponderance of evidence that conditions of employment are extraordinary and unusual in comparison to the normal conditions of the particular employment, and causation is shown by medical evidence. A new provision, §42-9-35, requires that the employee prove by a preponderance of the evidence including the medical evidence that the subsequent injury “aggravated the preexisting condition or the preexisting condition aggravates the injury”.

A new standard of proof in occupational disease cases was introduced as well. The employee must prove that there has been a continuous exposure to the normal working conditions of “that particular trade, process, occupation or employment”. The employee must establish that the occupational disease “arose directly and naturally from exposure” “in this state” by a preponderance of the evidence. Medical evidence means the opinion of a licensed health care provider.

6.4 Time-Related Issues

States continue to wrestle with time limits in claims for occupational disease. As more evidence and examples of diseases resulting from exposures that occurred many years prior to the development of the illness have emerged, some of the laws appear to be in need of adjustment. In some instances, employers or insurers find themselves hard-pressed to provide evidence regarding working conditions and exposures that might have existed many years ago, as

⁷⁵ From SB 878 and from resulting regulation promulgated in Oklahoma New Court Rules, 20C.

well as documenting an employee's work history and possible exposure to occupational hazards. The result is a continuing fine-tuning of time limit rules.

Kansas-2011. An injury is no longer compensable simply if work is a triggering or precipitating factor or if work simply aggravates, accelerates, or exacerbates a preexisting condition or makes it symptomatic. The legislature deemed that for an injury to be compensable, the work accident must be the "prevailing" factor in causing the (1) injury, (2) medical condition, and (3) resulting disability or impairment.

The 2011 bill extends the period of time, from 10 days to 30 calendar days, in which an employee must give notice that an injury by accident or repetitive trauma has occurred. However, in instances where the employee was no longer employed or where the employee sought medical treatment specifically for the injury, the employee has 20 calendar days to give notice. The employee has the responsibility to inform the employer's appropriate designee. Additionally, the new law has removed the "just cause" excuse for an employee to not provide notice of an accident. The statute now only excuses a failure to provide notice when the employer (or employer's duly authorized agent) had actual knowledge of the injury, the employer or its agent was unavailable to receive notice, or the employee was physically unable to give notice. As noted above, the time limits for notice have also been changed and the statute has limited which persons can be given notice and what form is acceptable

Louisiana-2001. The time limit for filing a claim for disability due to occupational disease was raised from six months to 1 year. From 2001, in an occupational disease claim, the date of the accident, for purposes of the average weekly wage, shall be the date of last employment with the last employer from whom benefits are claimed, or the date of the injurious exposure whichever date comes later.

Maine-2007. Previously the worker's average weekly wage in occupational disease cases was based on the date that the worker was last exposed to the source of the disease. The law change makes the worker's average weekly wage for wage replacement purposes based on the worker's wage at the time of injury.

Missouri-2005. Amendments add a notice requirement in occupational disease cases. Thus, the burden of relating an employee's health conditions to his or her employment will be greater—an employee has 30 days from the day of diagnosis to report the condition to his or her employer.

New Hampshire-2005. This amendment establishes that for an injury caused by cumulative trauma, the date of injury is the date of first medical treatment; and for an injury or condition aggravated by cumulative trauma, the date of injury is the date of first medical treatment for the aggravation.

Oregon-2001. An injured worker can pursue a civil action for a work-related injury that has been determined to be not compensable because the worker has failed to establish that a work-related incident was "the major contributing cause" of the injury—only after an order determining that the claim is not compensable has become final. Such action must occur: 1) two years from date of

injury, or 2) 189 days from the date of the order affirming that the claim is not compensable on such grounds, whichever is later.

South Carolina-2007. The 2007 law change requires that in repetitive trauma claims, notice must be given to the employer within 90 days of the date that the employee discovered or could have discovered by exercising reasonable diligence that his/her condition is compensable. There can be a reasonable excuse for failure to give notice and there is no prejudice to the employer/insurer.

The statute of limitation for repetitive trauma is two years for filing with the Commission after the employee knew or should have known that the injury was compensable, and no more than seven years from the date of last exposure. The seven year limit applies regardless of whether the employee was aware of his/her condition.

Tennessee-2001. The law was modified so that if an injury is the result of gradual or cumulative “events or trauma,” notice must be given to the employer within 30 days after the employee knows, or reasonably should have known, that s/he has sustained a work-related injury resulting in permanent impairment, or is unable to perform normal work activities as the result of the injury, and the employee knows it was the result of the work-related activity.

Vermont-1999. The definition of injury is expanded to include occupational disease. A claim for occupational disease shall be made within two years of the date the occupational disease is reasonably discoverable and apparent. The employee is entitled to compensation based on his average weekly wage at the time of the last work related exposure.

West Virginia-2010. The change increases the time in which a dependent may apply for workers compensation death benefits where occupational pneumoconiosis is determined to be a cause of death.

6.5 Pre-existing Conditions/Aggravation

Kansas-2011. An injury is no longer compensable simply if work is a triggering or precipitating factor or if work simply aggravates, accelerates, or exacerbates a preexisting condition or makes it symptomatic. The legislature deemed that for an injury to be compensable, the work accident must be the “prevailing” factor in causing the 1) injury, 2) medical condition, and 3) resulting disability or impairment. The bill also outlines the method for calculating a value for a preexisting condition; however, this kind of reduction will not apply to compensation for temporary total disability or for medical treatment. If compensation benefits have been awarded already, the percentage basis of the prior settlement or award conclusively establishes the amount of preexisting condition.

Ohio-2006. The amended act now requires a “substantial” aggravation of a pre-existing injury rather than merely a “symptomatic” aggravation in order to be compensable. If a condition that pre-existed an injury is substantially aggravated by the injury and that substantial aggravation is documented by objective diagnostic findings, objective clinical findings, or objective test results,

once that condition has returned to a level that would have existed without the injury, no compensation or benefits are payable because of the pre-existing condition.

Oregon-2001. In the 2001 amendments, a pre-existing condition means for all occupational disease claims any injury, disease, congenital abnormality, personality disorder, or similar conditions that contribute to disability or the need for treatment and that precedes the onset of the claimed occupational disease.

South Carolina-2007. Mental injuries, illness, or stress that is allegedly aggravated by physical injury is not compensable unless the aggravation is: admitted by the employer/insurer; an authorized doctor states that the condition is at least partially causally related; or an authorized psychologist or psychiatrist finds it to be causally-related. The law requires that the employee prove by a preponderance of the evidence, including the medical evidence, that the subsequent injury “aggravated the preexisting condition or the preexisting condition aggravates the injury.”

6.6 Apportionment

California-2004. SB 899 enacted major changes in the state’s workers’ compensation law, but it did little regarding occupational disease or cumulative trauma. It did make a change in the law applying to apportionment for pre-existing conditions. The employer is responsible only for the approximate percentage of injury caused by the present work-related injury. Formerly, §4663, which was repealed in 2004, provided that in cases of aggravation of any disease existing prior to the compensable injury, compensation should be allowed only for the proportion of the disability due to the aggravation of such prior disease that was reasonably attributable to the injury. Thus the scope of employer responsibility would seem to be reduced.

Iowa-2004. The employer is no longer liable for compensating disability from injuries with prior employers or for causes unrelated to employment. For subsequent injuries occurring with the same employer, the employer is liable for compensating the combined disability for all injuries caused but receives credit for the percentage of disability for which the employee was previously compensated by the employer.

Missouri-2005. The new law addresses credits for prior workers’ compensation settlements. The employer/insurer shall receive a credit for any prior settlement and awards, diminishing any subsequent compensation for a later accident.

6.7 Benefit Changes for Occupational Diseases

Colorado-1999. A 12-week limit on mental impairment benefits does not apply to victims of a physical injury or occupational disease that causes neurological brain damage. Benefits for mental or emotional stress shall not be coupled with ratings for scheduled or unscheduled injuries.

Illinois-2011. The number of weeks of PPD paid for the loss of use of the hand was reduced in 2011 from 205 weeks back down to 190 weeks (the same as pre-2/1/06), but only for carpal tunnel syndrome cases caused by repetitive or cumulative trauma. The new act further states that

if a claim involving the hand injury is for carpal tunnel syndrome as a result of repetitive trauma or cumulative trauma, the permanent partial disability award shall not exceed 15 percent loss of use of the hand, except for cause shown by clear and convincing evidence and in which case the award shall not exceed 30 percent loss of use of the hand.

6.8 Presumptions

We noted at the beginning of this section that there have been many changes in the state laws applying to presumptions for certain occupational diseases. We have included only a handful of these changes that we believe are illustrative of developments in the states, and others, such as Arizona and Nevada, that we regard as somewhat unusual.

Arizona-2011. The 2011 law requires a person that advocates a legislative proposal to submit a report to JLAC if the proposal as enacted either: a) mandates an insurer or self-insured employer deem that a disease or condition has arisen out of employment, including establishing a presumption of compensability; or b) substantially modifies a statute that establishes a presumption of compensability for a disease or condition. The bill requires the report to include all of the following: a) scientific evidence that shows the extent to which: i) peer reviewed scientific studies exist that document a causal relationship that a specific disease or condition has been demonstrated to have arisen out of employment; ii) the Centers for Disease Control and Prevention have determined that the disease or condition is acquired or transmitted; and iii) alternative exposure patterns exist for acquiring or transmitting a disease or condition other than occupational; b) financial information to indicate the extent to which the mandate may cause an employer or insurance carrier to pay a workers' compensation claim for a non-work related disease or condition and increase costs to self-insured employers or premiums charged by insurance carriers; and c) an explanation of why existing compensability methods are inadequate to accurately determine if a disease or condition is acquired or transmitted in the course of employment. The bill requires the report to address the specific language of the legislative proposal.

California-2009. The changes in 2009 and 2010 give some indication of the detailed nature of some of these presumption rules or statutes. We include them in this section for that reason only.

Prior to 2009, existing law provided that, in the case of certain state and local firefighting and law enforcement personnel, the term "injury" includes hernia, blood-borne infectious disease, methicillin-resistant *Staphylococcus aureus* (MRSA) skin infection, tuberculosis, and meningitis that develops or manifests itself during a period while the member is in the service of the governmental entity, and establishes a disputable presumption in this regard. This law extended these provisions to members of the police departments at the University of California (UC) and California State University (CSU). It also extended these provisions, in the case of either tuberculosis or meningitis, to members of police departments of a district and, in the case of a hernia, blood-borne infectious disease, or MRSA skin infection, to members of fire departments at UC and CSU.

California-2010. Existing law further provided that in the case of active firefighting members of certain state and local fire departments and certain peace officers, a compensable injury includes

cancer that develops or manifests itself during the period when the firefighter or peace officer demonstrates that he or she was exposed, while in the service of the public agency, to a known carcinogen, as defined, and the carcinogen is reasonably linked to the disabling cancer. Existing law establishes a presumption that the cancer in these cases arose out of, and in the course of, employment unless the presumption is controverted by evidence that the primary site of the cancer has been established and that the carcinogen to which the member has demonstrated exposure is not reasonably linked to the disabling cancer. Prior law extended this presumption to a member following termination of service for a period of three calendar months for each full year of the requisite service, but not to exceed 60 months in any circumstance, commencing with the last date actually worked in the specified capacity. This law would, instead, extend the presumption to a member following termination of service for a period of one year for each full year of the requisite service, but not to exceed 180 months in any circumstance, commencing with the last date actually worked in the specified capacity.

Idaho-2001. Infectious hepatitis and tuberculosis are now to be considered occupational diseases in any occupation where employees were exposed to human blood and bodily fluids. They were added to Idaho's list or schedule of diseases.

Kentucky-1999. All of the changes applying to occupational disease deal with coal workers claims relating to dust diseases. New rules were established on spirometric testing, x-ray reading, and an irrebuttable presumption in the case of certain test values. Also, a rebuttable presumption is created that coal dust was a significant contributing factor for pneumoconiosis and respiratory impairment claims from miners with 15 years or more of working in coal mines or coal processing facilities.

Nevada-1993 and 2009. If the employee files a notice of an occupational disease pursuant to NRS 617.342 after his or her employment has been terminated for any reason, there is a rebuttable presumption that the occupational disease did not arise out of and in the course of his or her employment.

Nevada-2001. These amendments provide that if a person employed in the state contracts a contagious disease in the course and scope of his employment that results in disability or death, the disease is deemed an occupational disease and compensable if certain conditions are met. "Contagious disease" means hepatitis A, B, or C, human immunodeficiency virus, or acquired immune deficiency syndrome (AIDS).

Oklahoma-2005. The employee has the burden of proof to establish by a preponderance of the evidence that such unexpected or unforeseen injury was in fact caused by the employment. There is no presumption from the mere occurrence of such unexpected or unforeseen injury that the injury was in fact caused by the employment.

Tennessee-2011. Cumulative trauma conditions, hearing loss, carpal tunnel syndrome, and all other repetitive motion conditions shall not be considered an occupational disease unless such conditions arose primarily out of and in the course and scope of employment. The opinion of the physician, selected by the employee from the employer's designated panel of physicians

pursuant to §50-6-204(a)(4)(A) or (a)(4)(B), shall be presumed correct on the issue of causation but said presumption shall be rebutted by a preponderance of the evidence.

6.9 Aging Issues

At least three states specifically include some recognition of aging and natural deterioration in their changes to occupational disease legislation.

Michigan-2011. As noted above, the three underlined words that follow were added to a section dealing with compensation and the aging process. Mental disabilities and conditions of the aging process, including but not limited to heart and cardiovascular conditions, and degenerative arthritis shall be compensable if contributed to or aggravated or accelerated by the employment in a significant manner.

Missouri-2005. The state included in its changes the following: Gradual deterioration or progressive body degeneration caused by aging or the normal activities of day-to-day living will not be compensable under the amendments.

Oklahoma-2005. “Compensable injury” shall not include the ordinary, gradual deterioration, or progressive degeneration caused by the aging process, unless the employment is a major cause of the deterioration or degeneration and is supported by objective medical evidence.

6.10 Conclusion

The long run outcomes of some of these changes may disappoint those who supported the law changes. We are aware of many instances when this has happened in workers’ compensation, regardless of which stakeholder group was the proponent of a law change. As an example, in Missouri, by making it more difficult for some workers to receive compensation for occupational disease, the law has potentially opened up some employers to tort actions by those employees. (This development is not unique to Missouri, and may be of concern to those who may be vulnerable to such actions at law.) A former employee of Kansas City Power and Light Company has developed mesothelioma, a condition that is alleged to have resulted from occupational exposure to asbestos.⁷⁶ The employer seeks to have the case adjudicated under the workers’ compensation law. The 2005 amendments to the workers’ compensation law apply the “exclusive remedy” provision only to work injuries. The definition of injury seems unlikely to be stretched to include mesothelioma. The case is currently in litigation.

⁷⁶ In the Missouri Court of Appeals State ex rel. KCP&L Greater Missouri Operations, Relator v. The Honorable Jacqueline Cook, Circuit Court Judge, 17th Judicial Circuit Court, Respondent, Western District #73462.

7 ANALYSES OF OCCUPATIONAL DISEASE CLAIMS DATA

7.1 Accepted, Denied, and Compensable Claims

7.1.1 Accepted Claims

Upon receipt of an injury report, the adjudication process results ultimately in a determination of acceptance or denial. Most of this report analyzes information from claims that have been accepted and that have resulted in compensation above and beyond medical payments. However, as context for those analyses, we start by presenting data on total annual claims and the proportion of those claims that are accepted or denied. Our analysis period is from 1997 to 2009, and we have disaggregated the data by insurer type—state fund or self-insured.⁷⁷

The overriding claims trend in Washington during this analysis period is downward. Total claims dropped by almost 100,000 annually between 1997 and 2009 from about 247,500 to about 148,000. Total accepted claims declined by over 90,000 from a level of 222,651 in 1997 to 130,870 in 2009. Total denied claims dropped from just under 25,000 in 1997 to just over 17,000 in 2009. Table 7.1 displays these data, by type of insurer.

Table 7.1 Total Accepted and Denied Claims, by Year and Insurer Type

Year	Insurer						TOTAL		
	State Fund			Self-Insured			Accepted	Denied	Total
	Accepted	Denied	Total	Accepted	Denied	Total			
1997	161,839	19,213	181,052	60,812	5,627	66,439	222,651	24,840	247,491
1998	157,162	18,970	176,132	61,137	5,907	67,044	218,299	24,877	242,313
1999	154,189	18,650	172,839	62,038	5,915	67,953	216,227	24,565	240,792
2000	148,920	19,849	168,769	60,681	5,614	66,295	209,601	25,463	235,064
2001	134,855	18,226	153,081	57,943	5,905	63,848	192,798	24,131	216,929
2002	124,688	15,840	141,528	53,879	5,506	59,385	178,567	21,346	199,913
2003	118,482	14,696	133,178	48,000	5,044	53,044	166,482	19,740	186,222
2004	120,995	14,867	135,862	47,274	4,973	52,247	168,269	19,840	188,109
2005	121,906	15,049	136,955	46,730	4,827	51,557	168,636	19,876	188,512
2006	123,709	15,029	138,738	46,504	4,828	51,332	170,213	19,857	190,060
2007	122,097	15,898	137,995	44,171	4,773	48,944	166,268	20,671	186,939
2008	111,666	14,548	126,214	43,240	4,519	47,759	154,906	19,067	173,973
2009	91,246	12,530	103,776	39,624	4,647	44,271	130,870	17,177	148,047

SOURCE: Total accepted claims, by insurer type, were supplied by Wayne Shatto, L&I. Denied claims, by insurer type were derived by authors from the data extract of denied claims.

Derived from the data displayed in Table 7.1, Table 7.2 exhibits the rates of claim acceptance by insurer type and year. The acceptance rates are approximately 90 percent, although the rates seem to be about two percentage points lower for the state fund than for self-insured employers assuming that the coverage of denials in the data warehouse is the same for

⁷⁷ While Washington is an exclusive state fund jurisdiction, self-insurance is allowed. Typically about one-third of compensable claims come from the self-insured sector in Washington. The analyses of trends in this chapter are limited to the time period of 1997 to 2009. The starting year of 1997 was chosen because of concerns about the lack of data availability prior to 1997 because of an L&I data purge. In most cases, the year 2009 was used as the end point of the analysis period because of concerns that more recent data are subject to considerable adjustment due to the maturation of claims. The trends that are presented in the chapter are therefore necessarily silent about the statistical picture of claims experience prior to 1997, and since 2009.

both insurer types.⁷⁸ Between 1997 and 2009, there is a general downward trend in acceptances for both the state fund and self-insured entities, although the trends are not steady.

Table 7.2 Claim Acceptance Rates, by Year and Insurer Type

Year	Insurer		TOTAL
	State Fund	Self-Insured	
1997	89.4	91.5	90.0
1998	89.2	91.2	89.7
1999	89.2	91.3	89.8
2000	88.4	91.5	89.2
2001	88.3	90.8	88.9
2002	88.1	90.7	89.3
2003	89.0	90.5	89.4
2004	89.1	90.5	89.5
2005	89.0	90.6	89.4
2006	89.2	90.6	89.6
2007	88.5	90.3	88.9
2008	88.5	90.5	88.0
2009	87.9	89.5	88.4

NOTE: Entries are accepted claims as a percentage of total claims.

SOURCE: Derived by authors from data in table 7.1.

7.1.2 Denied Claims⁷⁹

The entries in Table 7.2 are the acceptance rates of claims. Subtracting those rates from 100.0 percent yields the denial rates. During the 1997 to 2009 time frame, the denial rates for claims were approximately 10 to 11 percent. They were a couple of percentage points higher for the state fund than for self-insurers, and the denial rates generally increased over the analysis period for both types of insurers. Figure 7.1 shows the denial rates by insurer type, by year.

Denial rates also differ by claim type. Table 7.3 displays the total number of injury and OD claims and the number of denied claims by year for the period 2001 to 2009. The table also displays the denial rates for each of these types of claims. The data in the table show that the denial rates for injury claims are much larger than the denial rates for OD claims. The former are around 11 percent, and the latter are half of that or less. Over this time period, the denial rates for injury claims are U-shaped. They decrease for the first half of the time series, and then they increase for the second half of it.

⁷⁸ If denials from self-insured employers are underrepresented in the data warehouse, then the acceptance rates for self-insurers would be closer to those of the state fund.

⁷⁹ A specific task that was requested by L&I to be part of this study was a review of denied claims. The authors of the study did review a sample of denied claims. Not responding to a request to complete a work history or not responding to a request to describe tasks in a work history were the most common reasons for the denials. In more recent years, a claim would be accepted, and then denied when information was not provided, whereas in prior years, the claims were not accepted initially. A subsample of the claims that were reviewed had been denied on the basis that the diagnoses that were submitted were diseases of aging. None of the denials were appealed. We would note that medical records were attached to state fund claims only. We discontinued this task after reviewing 40 claims as the reviews were not providing additional insights to the analyses being undertaken using data from the L&I warehouse.

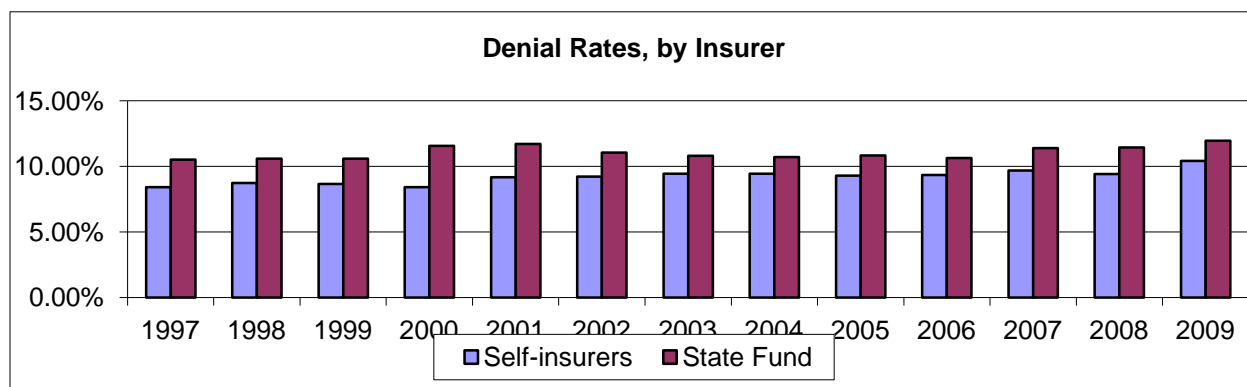


Figure 7.1 Denial Rates, by Insurer and Year.

On the other hand, the denial rates for OD claims “bounce around”, but then appear to trend downward near the end of the time series. However, the later years of the time series may underestimate denials of OD claims relative to injury claims if it takes longer for OD claims to ultimately be denied. This is quite plausible because of the relatively slow development of OD claims.

Table 7.3 Total Claims and Denied Claims, by Claim Type and Year

Year	Claim Type						TOTAL CLAIMS		
	Injury Claims			OD Claims			Total	Denied	Percent
	Total	Denied	Percent	Total	Denied	Percent			
2001	209,713	23,748	11.32	7,213	383	5.31	216,926	24,131	11.12
2002	193,110	20,990	10.87	6,794	356	5.24	199,904	21,346	10.68
2003	179,393	19,380	10.80	6,818	360	5.28	186,211	19,740	10.60
2004	181,268	19,460	10.74	6,830	380	5.56	188,098	19,840	10.55
2005	181,970	19,594	10.77	6,528	282	4.32	188,498	19,876	10.54
2006	183,702	19,527	10.63	6,343	330	5.20	190,045	19,857	10.31
2007	180,603	20,437	11.32	6,323	238	3.76	186,926	20,671	11.06
2008	167,941	18,908	11.26	5,943	159	2.68	173,884	19,067	10.97
2009	142,261	17,002	11.95	5,648	175	3.10	147,909	17,177	11.61

NOTE: Total is sum of accepted and denied claims. The totals differ slightly from the totals in table 1 because of date of access to the data.

SOURCE: Accepted claims by claim type (not shown in table) supplied by Lisann Rolle, L&I. Denied claims derived by authors’ tabulation of denied claims extract file.

In summary,

- A smaller proportion of OD claims than injury claims are denied.
- The later years of the time series of data on denial rates may not be accurate because of the time it takes to adjudicate the claims, but it appears as though there is an increasing trend in the denial rate for injury claims in the second half of the analysis period, whereas there appears to be a downward trend in denial rates for OD claims.

7.1.3 Compensable Claims

This section of the report presents analyses of claims data that were extracted from the L&I data warehouse. The time period for the claims is for date of injury from 1997 to March

2012. The data were extracted in April, 2012 and represent the status of claims as of that date. Most of the time series analyses presented here end in 2009 because the more recent data are still subject to change due to claim development. Two data files were extracted: 1) all compensable claims, **except** for hearing loss, and 2) all denied claims, **except** for hearing loss.⁸⁰

Compensability was based on the variable, “claim status code.” The compensable claims included L&I codes of 2 (time loss or PPD), 4 (fatality), 5 (TPD or pension), 7 (kept on salary), or 9 (loss of earning power). Not included in the data extract were L&I codes 0 (not yet allowed or noncompensable), 1 (medical only or noncompensable), 3 (denied), or 8 (provisional). All claims with status of 3 were included in the second data file. The main reason for not including medical only or noncompensable claims (code 1) was that the data warehouse has limited details on this type of claim for self-insurers.

7.1.3.1 Levels and trends of claims. Table 7.4 displays total compensable injury and occupational disease (except for hearing loss) claims, by year. Figure 7.2 exhibits these data with bar charts. The major trends that can be seen in the data are as follows:

Table 7.4 Total Compensable Claims, by Claim Type, Insurer, and Year

Year	Insurer				Total	
	State Fund		Self-Insured			
	Injury	OD	Injury	OD	Injury	OD
1997	33,212	2,398	19,896	121	53,113	2,519
1998	32,907	2,420	20,040	169	52,950	2,589
1999	37,485	2,706	19,075	170	52,192	2,876
2000	31,218	2,714	19,373	269	50,592	2,983
2001	29,094	2,543	18,271	244	47,365	2,787
2002	27,635	2,560	17,412	239	45,097	2,799
2003	27,499	2,655	15,979	242	43,478	2,897
2004	27,642	2,606	15,724	273	43,360	2,879
2005	28,084	2,679	15,344	267	43,418	2,946
2006	29,264	2,651	15,263	178	44,527	2,829
2007	28,900	2,653	15,344	226	44,244	2,879
2008	27,101	2,500	14,479	216	41,580	2,716
2009	22,792	2,215	13,586	247	36,378	2,462

NOTE: Hearing loss claims are omitted.

SOURCE: Authors’ tabulations of claims data supplied by L&I.

- Compensable injury claims have fallen steadily since 1997, although their levels were fairly constant over a five-year stretch from 2003 to 2007. Overall, compensable injury claims fell by about 30 percent from 1997 to 2009 from a level of more than 50,000 to a level of about 36,400.
- Compensable OD claims rose substantially between 1997 and 2000—an almost 20 percent increase from just over 2,500 to just under 3,000. Over the period from 2000 to 2007, the level of compensable OD claims (without hearing loss) were fairly constant at about 2,900; and then they decreased substantially between 2007 and 2009.

⁸⁰ Hearing loss claims were excluded at the request of L&I, as it was felt that their inclusion would distort many aggregate claim statistics.

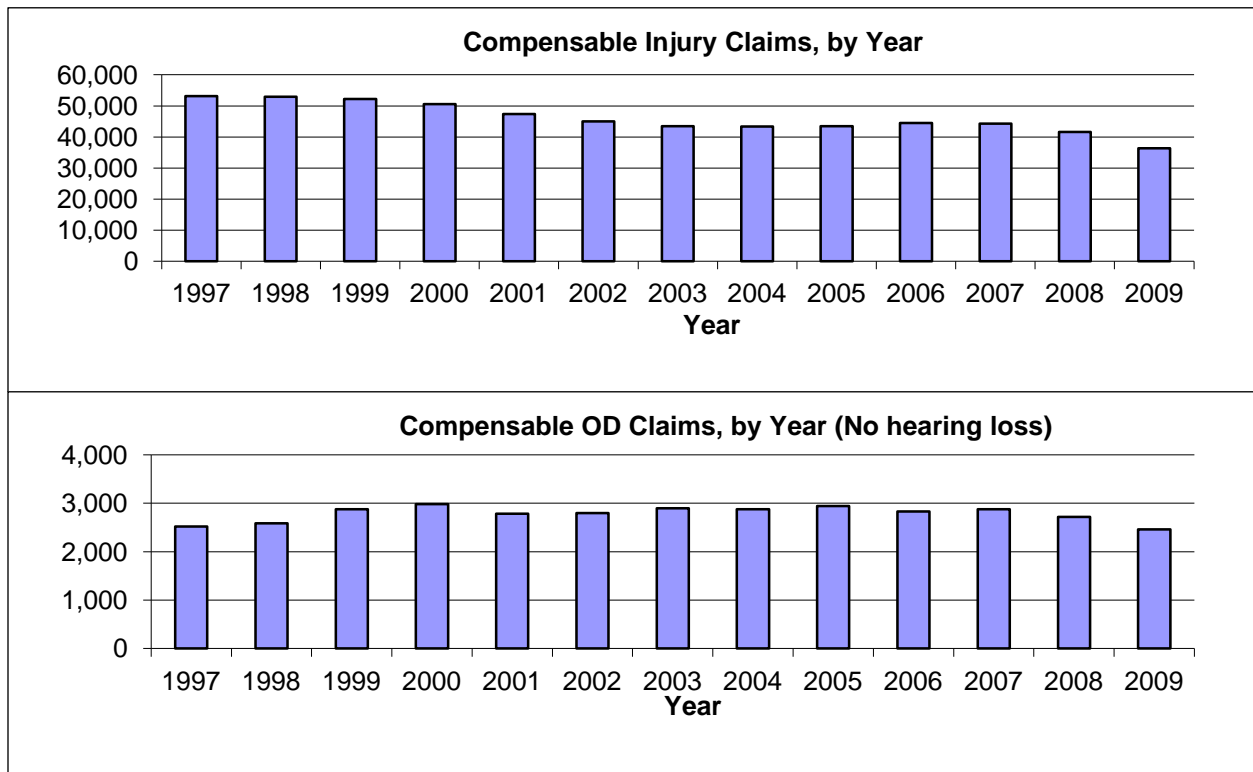


Figure 7.2 Compensable Injury and Occupational Disease Claims, by Year.

- The trends of declining injury claims and rising or constant OD claims (until the most recent few years) imply a rising trend in OD claims as a percent of all compensable claims, which is demonstrated in Figure 7.3. This was clear from 1997 until 2003 but more recent trends have been mixed.

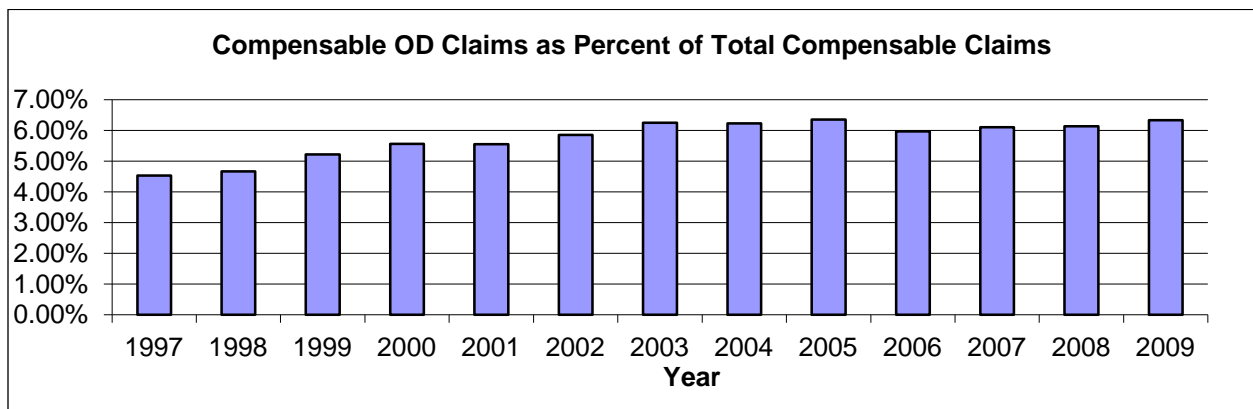


Figure 7.3 Compensable Occupational Disease Claims as a Percentage of All Compensable Claims, by Year.

Figure 7.4 shows that compensable claims have been a rising share of all accepted claims for injuries submitted to self-insured employers and OD claims submitted to self-insurers and to the state fund. Compensable claims are those that receive time-loss compensation payments as opposed to medical treatment only. They are generally regarded as “more serious” disability

claims. The figure indicates that the proportion of compensable OD claims was rising until 2003-4 and then declining through 2006 for both state fund and self-insured employers. More recently the compensable proportion has risen for both.

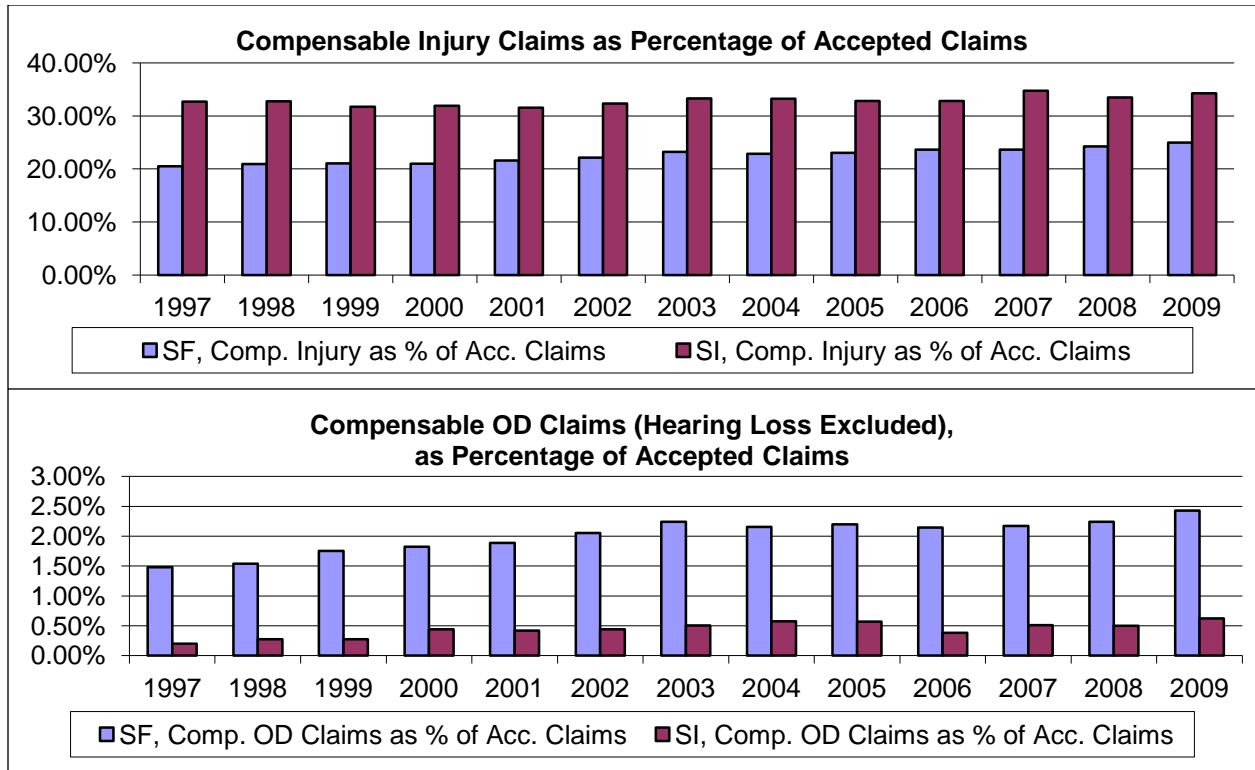


Figure 7.4 Compensable Claims as a Percentage of Accepted Claims, by Insurer and Year.

Figure 7.5 shows trends in the percentage of compensable claims that are occupational disease (OD) claims by insurer type - state fund or self-insurance. The figure shows that a much larger share of state fund compensable claims are OD claims than for self-insured employers. The share of state fund compensable claims that are OD claims is on the order of eight percent, whereas for self-insured claims, the share is under two percent.

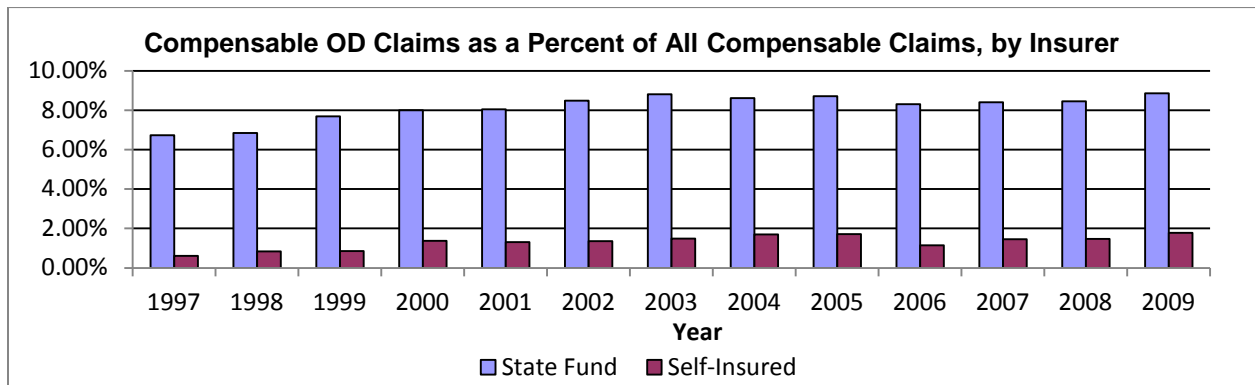


Figure 7.5 Compensable OD Claims as a Percentage of All Compensable Claims, by Insurer and Year (Hearing Loss Claims Excluded).

Not shown in the graph is the rapid rise in OD claims reported by self-insured employers since 2008, coincident with the “great recession.” Tabulations of data from L&I show that the number of compensable OD claims accepted by self-insured employers more than doubled from 248 in 2008 to 523 in 2011. This is particularly surprising because we would expect the number of such claims to be falling as we approach the present date, as it was for the state fund from 5,466 accepted compensable OD claims in 2008 to 3,562 in 2011.

Analyses of the trend data need to take account of the slow development of OD claims in workers’ compensation systems. There are at least three reasons for this slow development. First, because a disease typically takes longer to manifest than the immediate consequences of a traumatic injury, such claims are usually reported later. Second, because OD claims can be harder to investigate and document, they therefore will take longer to reach a compensability decision. Third, such claims are much more likely to be disputed, which can add months or even years to the age of a claim before resolution and reporting. All these factors lead to delays in counting such claims and therefore underestimating the ultimate number of OD claims in the short term. That is the reason for ending our analysis of Washington claims in 2009.

So it is particularly surprising to see a rapid rise in accepted OD claims in more recent years among self-insurers. We are not able to definitively explain this phenomenon. Our interview subjects from the self-insured sector did not report any such rapid escalation in the number of occupational disease claims. Nor have we been informed of any outbreak of occupational disease claims, due either to a new exposure or new evidence of causation. We suspect that the apparent rise represents the implementation of a new claim reporting system for self-insured employers. The Self-Insurance Electronic Data Reporting System (SIEDRS) was deployed by L&I in 2008, with encouragement for self-insured employers to begin using the new system through 2009.

As just noted, we hypothesize that something about the new claim reporting system produced the increased count of occupational disease claims rather than some real change in the situation. However, this is not confirmed by the number of accepted injury claims from self-insured employers, which actually declined by 19 percent from 2008 to 2011. Such a decline would be usual for the typical process of claim development in workers’ compensation systems. It is possible that there has been more careful attention by self-insured employers to differentiating between injury and occupational disease claims. But since we are not able to explain how this contradiction in claim trends is explained by the conversion to SIEDRS reporting, we are left with assumptions.

7.1.3.2 Benefits. In general, the overall benefits⁸¹ that are paid for compensable OD claims are higher than the benefits paid for injury claims. The mean and median benefit for an

⁸¹ To be conservative, the benefits data in this subsection of the chapter rely on the variable that is labeled in the data warehouse as “ptd_total,” which includes time loss, medical costs, loss of earning power payments, pension reserved amounts, supplement pension fund payments (cost-of living increases), PPD awards, burial expenses for fatalities, and accident fund payments for other expenses. Actuarial benefits paid to date, “actuary_ptd_total” is approximately 5 to 10 percent smaller in magnitude.

injury claim over the time period 1997–2008 are \$23,427 and \$3,465 respectively.⁸² The identical statistics for an OD claim are \$44,253 and \$14,468; the mean for OD claims is nearly two times and the median is almost four times larger.

Figure 7.6 displays the average benefit of a compensable OD claim, by year. Note that the beginning of the time series shows a sizeable increase from about \$33,000 to about \$45,000 from 1997 to 2000. After that date, the average benefit fluctuates between \$45,000 and \$47,000 through 2007. The decline after 2007 likely reflects the lack of development for such claims. In Figure 7.7, we show the average benefit by insurer type. The trend for state fund claims has the identical shape as in Figure 7.6, but the levels are about \$1,000 to \$2,000 higher. The average benefit of a self-insured claim has followed an irregular downward trend from a high of about \$27,000 in 1999 to about \$12,000 in 2008. In general, the benefits paid for a self-insured OD claim are approximately one-half or less the benefits paid for a state fund claim.

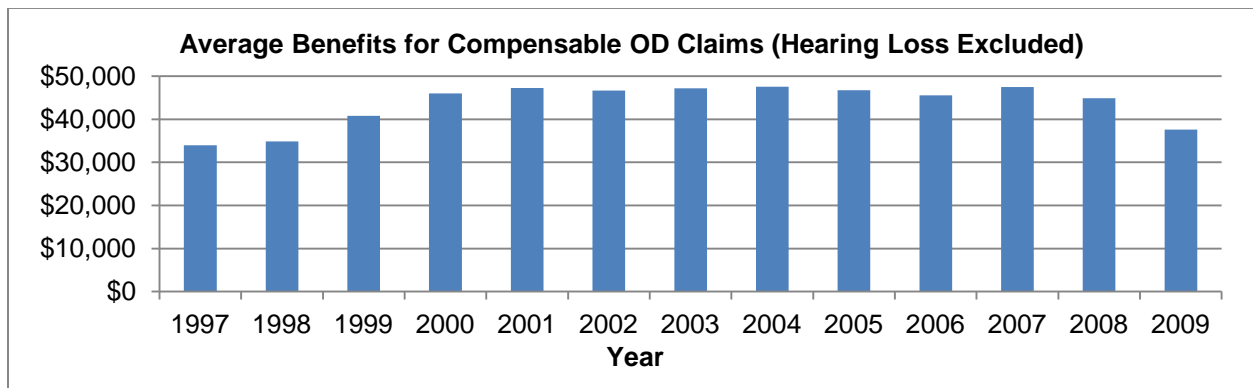


Figure 7.6 Average Benefit Payment for a Compensable OD Claim, by Year.

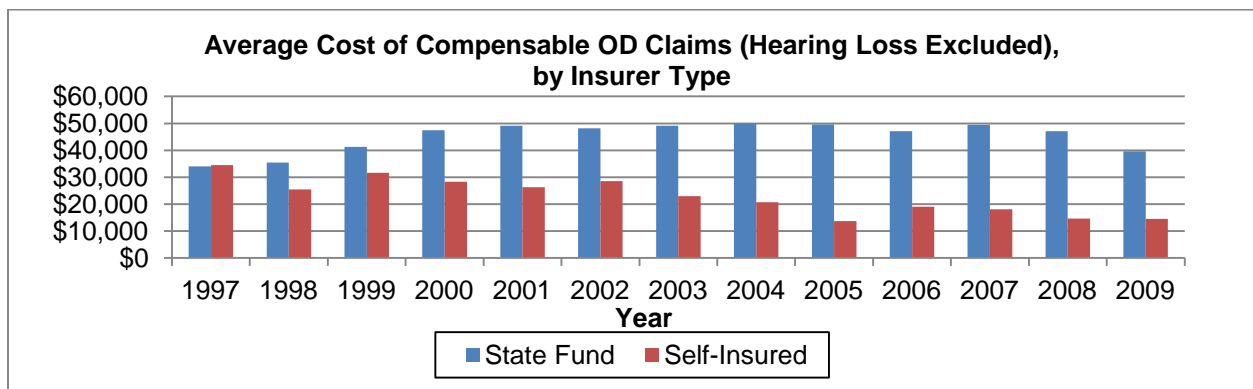


Figure 7.7 Average Benefits for a Compensable OD Claim by Insurer Type, by Year.

7.1.3.3 Time loss. Not surprisingly, the trends in time loss days are similar to the trends in per claim benefits paid. Figure 7.8 shows that the average time loss for a compensable OD claim (excluding hearing loss claims) rises from about 273 days to 350 days in the four-year

⁸² We do not include \$0 in these calculations, and we end the range of years at 2008 since so many recent claims continue to have payments.

period from 1997 to 2000. The statistic peaks in 2000, and then slowly declines through 2008. There is about a 10 percent decline in the average from 350 to 315 days.⁸³

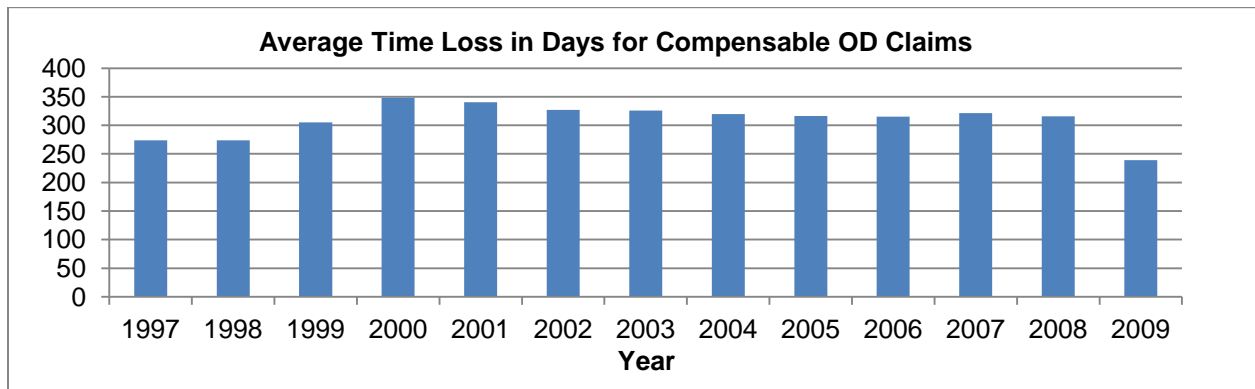


Figure 7.8 Average Time Loss in Compensable OD Claims, by Year.

Figure 7.9 shows the time loss data by type of insurer. The trend in average time loss for state fund compensable OD claims closely mirrors the overall trend in the state, but is about 10 to 20 days higher because self-insured claims have lower time loss days over the entire period from 1997 to 2009. Although the values are much smaller, the trend in average time loss days for self-insured claimants is also similar to the overall state average. It increases from 1997 to 1999 from about 200 days to 260 days. It then declines to just under 100 days in 2005. From 2005 to 2009, the average remains at approximately that level. Starting in 2002, the average time loss days for self-insured OD claimants is approximately equal to or less than half of the average for state fund claimants.⁸⁴

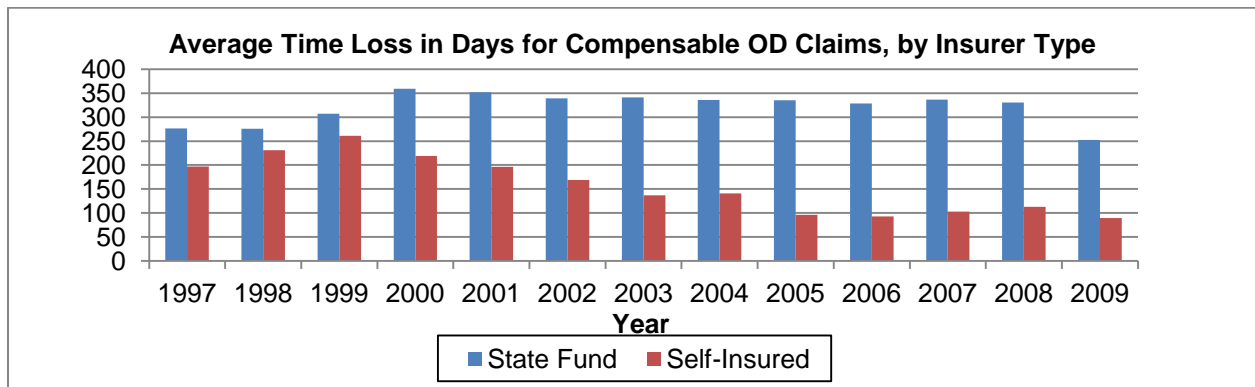


Figure 7.9 Average Time Loss in Compensable OD Claims by Insurer Type, by Year.

⁸³ These averages are calculated for all claims with non-zero time loss days. These averages are slightly longer than averages calculated only for closed cases suggesting that some of the open cases have long time loss periods that are increasing the averages. For example, the average for all claims for injury year 1997 is 273.8 days, whereas it is 267.0 days for closed claims. For injury year 2002, the average for all claims is 327.1 days, whereas it is 288.5 days for closed cases.

⁸⁴ One reason for this relationship is that self-insured employers may be more eager to resolve claims. For example, they are more likely to enter side-bar agreements that settle such claims.

7.1.3.4 Pensions. Another issue of interest is the incidence of pensions from OD claims. Table 7.5 shows annual data on number of compensable injury and OD claims, and the number of such claims that resulted in pensions. In general, a higher portion of the OD claims are pensioned than injury claims. The table shows that roughly 2.0 to 2.5 percent (approximately 740 to 1,260 claims during the years of analysis up to 2005) of compensable injury claims per accident year are pensioned, whereas the share of OD claims that are pensioned is about double that—roughly four to six percent (approximately 100 to 170 claims through 2005) with a peak at 6.1 percent in 2001. As with many of our statistics in this section, the percentage of claims—both injury and OD—that are pensioned increases over the first few years of data and then declines thereafter. It is unclear how much of the apparent decline represents the reduced maturity of the claims. It can easily take 6 to 8 years for a time-loss claim to develop into a lifetime pension claim, so the existence of a decline after 2002 may simply reflect this development time for some pensions. Figure 7.10 displays the percentages, by claim type.

Table 7.5 Number and Percentage of Compensable Claims that are Pensioned, by Claim Type and Year

Year	Claim Type						TOTAL		
	Injury			OD			Total	Pensioned	Percent
1997	53,113	1,079	2.03	2,519	96	3.81	55,632	1,175 (1,186)	2.11 (2.13)
1998	52,950	1,076	2.03	2,589	119	4.63	55,539	1,195 (1,203)	2.15 (2.17)
1999	52,192	1,198	2.29	2,876	134	4.69	55,068	1,332 (1,362)	2.42 (2.47)
2000	50,592	1,258	2.49	2,983	162	5.43	53,575	1,420 (1,471)	2.65 (2.75)
2001	47,365	1,188	2.51	2,787	170	6.10	50,152	1,358 (1,468)	2.71 (2.93)
2002	45,047	1,162	2.58	2,799	156	5.54	47,846	1,318 (1,450)	2.75 (3.03)
2003	43,478	957	2.20	2,897	136	4.66	46,375	1,093 (1,242)	2.36 (2.68)
2004	43,366	857	1.98	2,879	130	4.52	46,245	987 (1,196)	2.13 (2.59)
2005	43,418	739	1.70	2,946	108	3.67	46,364	847 (1,088)	1.83 (2.35)
2006	44,527	636	1.43	2,829	76	2.69	47,356	712 (1,001)	1.50 (2.11)
2007	44,244	490	1.11	2,879	69	2.40	47,163	559 (781)	1.19 (1.66)
2008	41,580	312	0.75	2,716	29	1.07	44,296	341 (573)	0.77 (1.29)
2009	36,378	88	0.22	2,462	12	0.77	38,840	100 (249)	0.26 (0.64)

SOURCE: Authors' tabulations of claims data. Entries in parentheses include claims for which pension reserves have been established, but the claim is not formally pensioned.

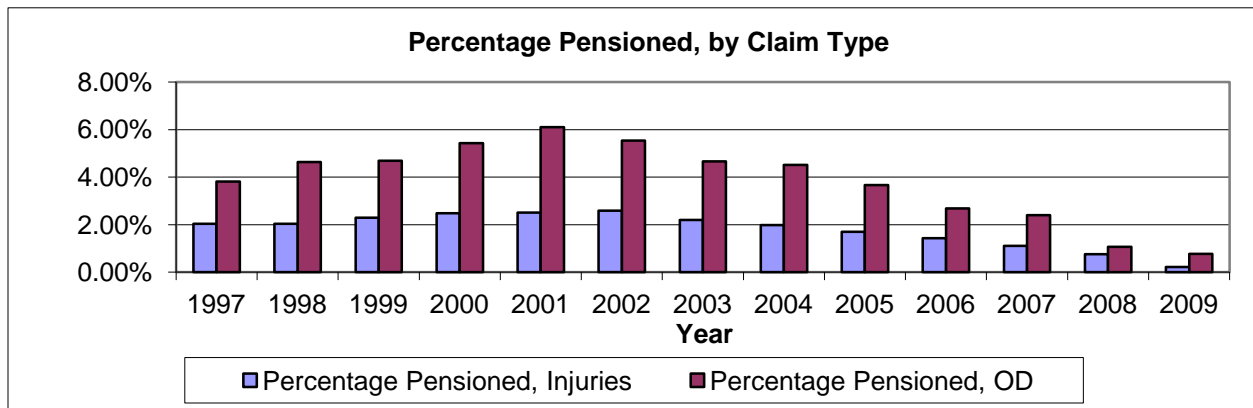


Figure 7.10 Percentage of Compensable Claims that are Pensioned, by Claim Type and Year.

7.2 Trends in Worker Exposure and Claim Experience

7.2.1 By Industry Group

A potentially important factor in explaining trends in claim experience is trends in worker exposure. In this section, we present those trends by industry group and by occupation. The exposure data by industry groups are based upon hours of employment as reported to L&I for use in premium determination.⁸⁵ The exposure data for occupations come from the U.S. Department of Labor Bureau of Labor Statistics Occupational Employment Statistics (OES) series.

For industry groups, we are using the following major categories:

- A Agriculture
- B Forest Products
- C Miscellaneous Construction
- D Building Construction
- E Trades
- F Food Processing and Manufacturing
- G Metal and Machinery Manufacturing
- H Miscellaneous Manufacturing
- I Utilities and Communications
- J Transportation and Warehousing
- K Dealers and Wholesalers
- L Stores
- M Miscellaneous Services
- N Health Care
- O Misc. Professional and Clerical
- P Schools
- Q Government
- R Temporary Help

⁸⁵ Washington is unique in measuring workers' compensation exposure by hours rather than employment.

Figure 7.11 shows that the total number of insured hours in the state is cyclical, but has also grown substantially over the past 15 years. The state was in recession in the 2002–2004 and 2008–2010 periods, and was expanding in the 1997–2000 and 2004–2007 periods. In looking at cycle peak to cycle peak or trough-to-trough, the increase in insured hours in the state is approximately 400,000, i.e., slightly less than 10 percent.

The largest industry group in terms of employment is Miscellaneous Professional and Clerical, which accounts for more than 25 percent of total hours. When added together, the four largest industry groups—Miscellaneous Professional and Clerical, Miscellaneous Services, Schools, and Stores—account for over 60 percent of insured hours. The first and largest of these includes higher-skilled occupations that require more education: certain engineers, finance workers, insurance, sales, legal, and real estate sectors. The second largest industry group, Miscellaneous Services, includes less skilled service occupations such as personal care, janitorial, and automobile service, for example.

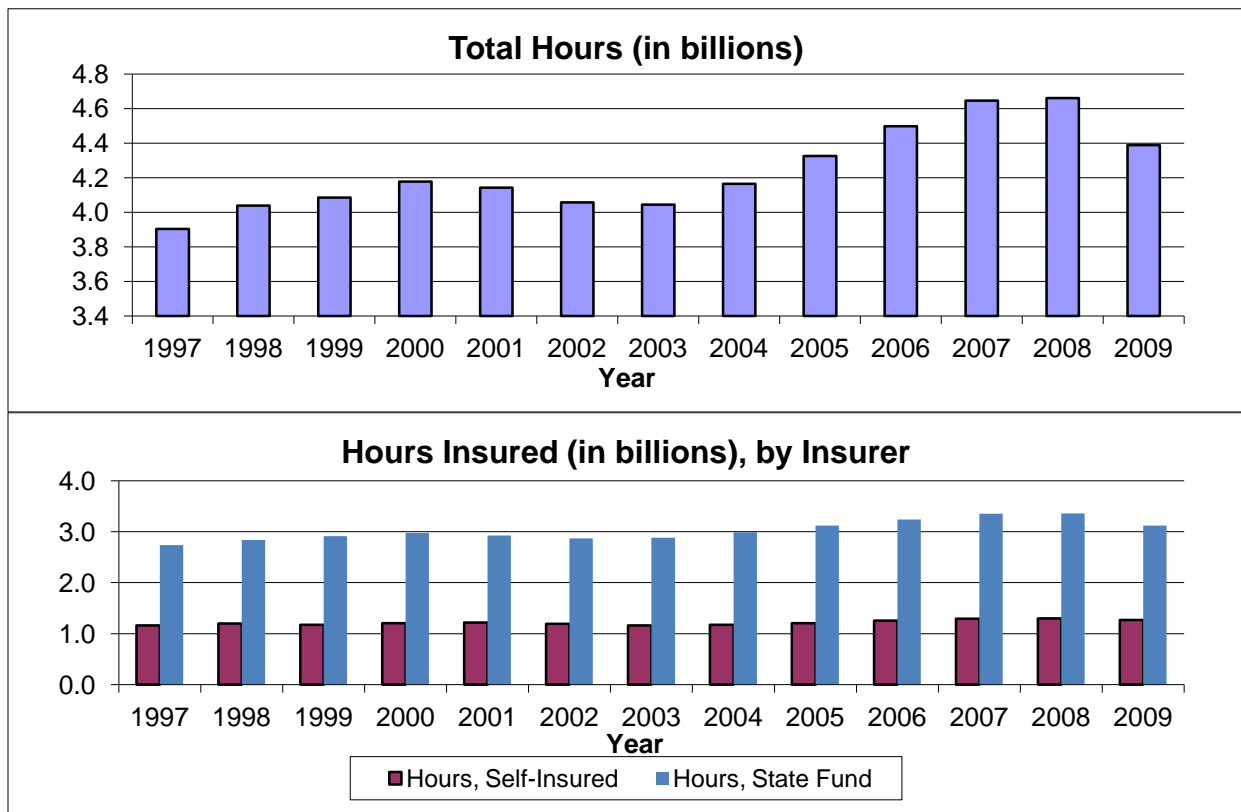


Figure 7.11 Insured Hours in Washington State, by Year.

The lower panel of Figure 7.11 shows insured hours, by type of insurer. Although not easily seen in the figure due to its scale, there is a slight upward trend and some cyclicity to the number of hours in self-insured entities.⁸⁶ The cyclical trend for state fund hours is more readily apparent, and tracks closely to the overall hours trend.

⁸⁶ Note that this could reflect employment changes, but also variation in the incidence of self-insurance among Washington employers.

7.2.1.1 Percentage of compensable claims that are OD claims. Table 7.6 displays the percentages of compensable claims that are OD claims by industry group and year. In general, the industry groupings that have the highest percentage of OD claims are Miscellaneous Professional and Technical, Miscellaneous Manufacturing, Trades, and Metal and Machinery Manufacturing. Although not shown in the table, the rankings change by insurer type. For the state fund, the industry groups with the highest percentages of OD claims are Miscellaneous Professional and Technical, Miscellaneous Manufacturing, Health Care, and Metal and Machinery Manufacturing. For self-insured employers, the top four are Metal and Machinery Manufacturing, Miscellaneous Manufacturing, Miscellaneous Professional and Technical, and Miscellaneous Construction.

The industry groups that have the lowest percentages of OD claims are Agriculture, Transportation and Warehousing, and Schools, respectively. Miscellaneous and Building Construction also had low shares of OD claims. Examining the entries in each column of Table 7.6 shows that all of the industry groups have variability in the percentages of compensable claims that are OD claims.

Table 7.6 Percentage of Compensable Claims that are OD Claims (Hearing Loss Excluded), by Industry Group and Year

Injury Year	Industry Group																	
	Forest Agri.	Misc. Prods.	Bldg. Const.	Trade Const.	Food; s	Metal Mfg.	Misc. Mfg.	Util. Mfg.	Trans. Comm.	Deal. Ware.	Misc. Stores	Health Care	Prof.; Cler.	Schools	Govt.	Temp. Help		
1997	2.4	3.9	4.2	4.2	6.2	4.8	3.3	10.0	2.3	1.6	3.3	3.9	5.6	4.1	15.2	3.2	4.5	3.7
1998	1.9	4.4	4.0	3.9	5.4	6.3	3.8	11.3	3.6	1.5	3.2	4.2	5.6	4.4	15.5	3.0	4.7	4.4
1999	2.8	5.9	5.3	5.0	6.8	6.7	3.9	13.0	2.2	1.6	4.1	4.7	5.9	4.4	15.7	3.1	5.0	5.3
2000	1.9	5.3	6.4	5.4	7.6	5.1	4.5	13.1	5.3	1.9	4.4	4.9	6.6	5.1	17.2	3.7	4.9	4.1
2001	2.6	6.3	5.0	5.3	7.1	5.5	5.0	13.0	4.9	2.0	4.8	4.5	6.4	4.7	19.1	3.5	4.6	4.0
2002	2.7	6.9	5.6	5.4	7.5	6.1	4.8	14.2	4.1	2.5	3.8	5.3	6.6	4.7	18.8	4.2	4.8	6.2
2003	3.2	6.6	5.8	5.4	8.0	6.9	5.8	13.6	7.8	2.4	5.3	5.2	6.8	5.0	21.5	3.7	5.4	5.0
2004	1.6	7.4	6.1	5.7	8.7	7.1	7.7	11.5	4.3	2.5	4.9	5.5	6.9	5.2	20.3	3.6	4.8	5.3
2005	2.4	6.3	7.9	6.4	7.9	6.5	6.8	10.9	6.1	2.0	6.4	5.4	7.1	6.0	18.7	4.6	5.4	5.8
2006	2.2	7.2	6.0	5.0	7.5	7.4	6.1	12.8	6.5	2.6	3.9	4.8	7.4	5.5	17.6	3.2	5.0	5.9
2007	2.0	7.9	6.1	5.6	7.4	6.5	7.2	15.1	3.4	3.0	4.0	4.4	6.5	6.1	17.6	3.9	5.2	6.2
2008	2.1	8.9	6.9	5.9	6.9	7.4	8.1	14.3	5.5	2.9	3.5	4.0	6.8	6.6	17.6	3.1	4.7	5.1
2009	2.5	6.5	7.4	7.7	10.8	6.8	9.4	16.1	4.8	2.8	4.8	3.9	6.8	5.9	15.7	2.8	5.2	5.1

NOTE: Table entries are percentages of compensable claims in an industry group that are OD claims.

SOURCE: Authors' tabulations of claims data.

7.2.1.2 Distribution of OD claims. The distribution of OD claims across industry groups refers to the percentage of all compensable OD claims (excluding hearing loss) for a year that arise from workers in each group. These percentages, shown in Table 7.7, sum to 100.0 percent. For the state as a whole and for the State Fund, the four industry groups with the highest percentage of OD claims are Miscellaneous Services, Miscellaneous Professional and Technical Services, Government, and Trades. For self-insured employers, the industry group with the highest contribution of OD claims by far is Metal and Machinery Manufacturing. That sector accounts for one-third to 40 percent of all self-insured OD claims. Also high contributors among self-insured employers are Stores and Health Care.

Table 7.7 Percentage Distribution of Compensable OD Claims (Hearing Loss Excluded), by Industry Group and Year

Injury Year	Industry Group																	
	Agri.	Forest Prods.	Misc. Const.	Bldg. Const.	Trades	Food; Mfg	Metal Mfg.	Misc. Mfg.	Util. Comm.	Trans. Ware.	Deal. Whl.	Stores	Misc. Serv.	Health Care	Misc. Prof.; Cler.	Schools	Govt.	Temp. Help
1997	1.4	4.8	3.3	5.9	6.8	4.2	6.2	7.7	0.7	3.9	2.7	7.0	14.9	5.8	12.7	3.5	7.0	1.6
1998	1.2	4.3	2.8	5.5	5.7	5.2	8.0	7.8	1.2	3.9	2.5	7.3	14.4	6.1	12.1	3.1	7.1	1.8
1999	1.5	5.1	3.6	6.7	7.0	5.0	6.7	8.1	0.6	3.6	2.8	6.9	13.6	5.3	12.0	3.0	6.9	1.9
2000	1.0	4.4	3.9	6.6	7.4	3.3	6.4	7.2	1.3	4.0	3.1	7.0	13.9	5.9	12.8	3.5	7.1	1.3
2001	1.3	4.6	2.9	6.4	7.1	3.6	7.2	6.3	1.3	3.8	3.4	6.9	13.2	6.0	13.7	3.4	7.8	1.2
2002	1.2	4.8	3.1	5.8	7.0	3.6	5.9	6.0	1.0	4.3	2.5	8.0	13.3	5.9	13.8	4.0	8.1	1.6
2003	1.5	4.1	3.1	5.5	7.2	3.9	5.5	5.5	1.9	3.8	3.3	7.7	13.1	5.8	14.7	3.3	8.8	1.4
2004	0.7	4.8	3.5	6.2	7.8	3.5	6.6	4.3	1.0	4.1	3.0	8.2	13.6	6.3	13.7	3.3	7.8	1.8
2005	1.1	4.0	4.8	7.3	7.2	3.1	5.6	4.2	1.4	3.2	3.9	7.5	13.7	6.6	11.7	4.2	8.6	2.0
2006	1.1	4.1	4.3	6.3	7.4	3.7	6.0	5.0	1.7	4.1	2.5	6.9	15.2	6.4	12.0	3.0	8.2	2.2
2007	0.9	4.3	4.1	7.4	7.3	3.2	7.8	5.9	0.8	4.7	2.7	5.7	12.7	7.0	11.5	3.7	8.3	2.2
2008	1.0	4.1	4.1	6.8	7.0	3.6	8.1	5.0	1.4	4.4	2.3	5.6	13.7	7.8	12.3	3.0	8.1	1.6
2009	1.4	2.4	3.5	6.7	9.6	3.6	9.1	4.5	1.1	4.0	2.9	5.6	14.1	7.6	10.5	2.8	9.6	1.1

NOTE: Table entries are percentages of compensable OD claims in industry group.

SOURCE: Authors' tabulations of claims data.

7.2.1.3 Incidence of Compensable Claims. In analyzing incidence across industry groups, we are using 2000 hours as a full-time equivalent (FTE). Figure 7.12 displays incidence for the state as a whole for all compensable claims, for compensable injury claims, and for compensable OD claims. The top panel shows that the incidence of compensable claims and compensable injury claims fell from about 28 claims per 1000 FTEs to about 17 claims per 1000 FTEs over the period from 1997 to 2009. This reduction is consistent with and may be a result of improvements in worker safety and health over the period. The lower panel of Figure 7.12 shows incidence for compensable OD claims. These incidence rates stayed fairly constant between 1997 and 2005, and then decreased after that. Between 2005 and 2009, the incidence decreases from about 1.4 per 1000 FTEs to about 1.1 per 1000 FTEs (about a 20 percent improvement).

The industry groups with the highest incidences of compensable claims (i.e., the highest rate of claims per 1000 FTEs) are Building Construction, Trades, and Transportation and Warehousing. These three groups have annual incidences of between 67 and 111 compensable claims per 1000 FTEs; 33 to 67 compensable claims per 1000 FTEs; and 42 to 100 compensable claims per 1000 FTEs, respectively, over the 1997 to 2009 period. The sectors with the lowest annual rates of incidence of compensable claims over the 1997 to 2009 period are Miscellaneous Professional and Clerical (1.9 to 4.4 compensable claims per 1000 FTEs), Schools (11.1 to 16.7 compensable claims per 1000 FTEs), Health Care (16.7 to 27 compensable claims per 1000 FTEs), and Utilities and Communication (13.9 to 28.6 compensable claims per 1000 FTEs).

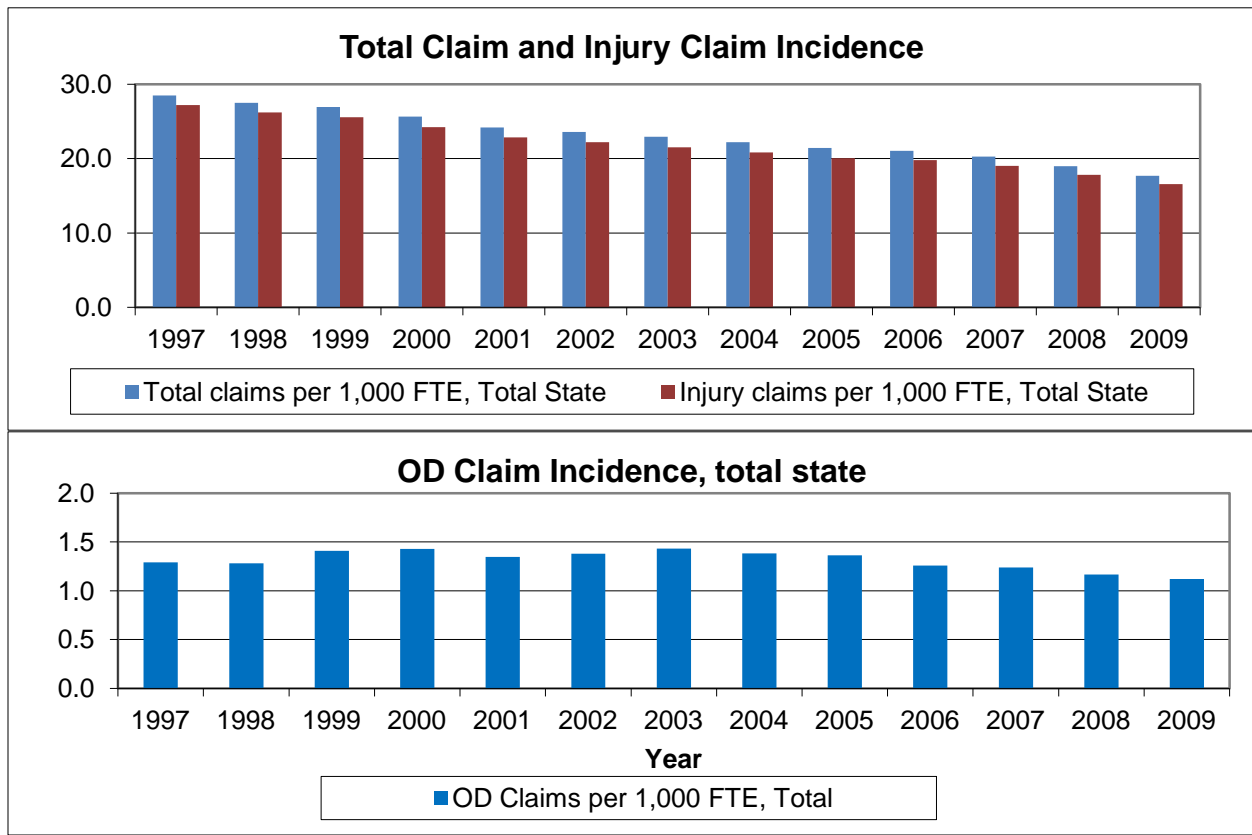


Figure 7.12 Incidence of Compensable Claims, by year and Claim Type (Hearing Loss Excluded).

The industry groups with the highest annual incidence rates for compensable OD claims between 1997 and 2009 are Building Construction (3.8 to 4.5 compensable OD claims per 1000 FTEs), Trades (2.9 to 4.1 compensable OD claims per 1000 FTEs), Miscellaneous Manufacturing (2.9 to 3.7 compensable OD claims per 1000 FTEs), and Forest Products (2.5 to 3.8 compensable OD claims per 1000 FTEs). The groups with the lowest annual incidence rates for compensable OD claims (i.e., the lowest rates of claims per 1000 FTEs) are Schools (0.4 to 0.6 compensable OD claims per 1000 FTEs), Miscellaneous Professional and Clerical (0.4 to 0.8 compensable OD claims per 1000 FTEs), and Stores (0.8 to 1.3 compensable OD claims per 1000 FTEs).

Figure 7.13 displays the incidence rates for all compensable claims for the state fund and for self-insured employers. Incidence rates by insurer type are quite different for compensable OD and compensable injury claims, however. State fund employers experienced a lower incidence of compensable injury claims than did self-insured employers; the difference being approximately 25 percent. Since injury claims are far more numerous than compensable OD claims, the figure shows that self-insured employers have a higher incidence of compensable claims. On the other hand, self-insured employers have an incidence of compensable OD claims that is about one-quarter to one-third the level of incidence for state fund employers (the former had an incidence of compensable OD claims—except for hearing loss—of 0.3 to 0.5 per 1000 FTE, whereas it is 1.3 to 1.8 for state fund employers).

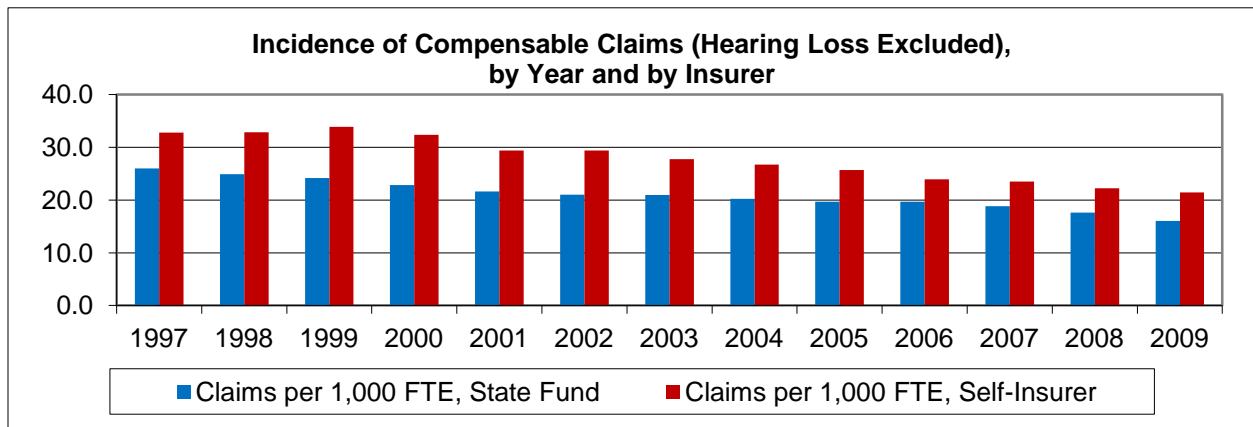


Figure 7.13 Incidence of Compensable Claims, by Insurer Type.

7.2.2 By Occupation

The industry groupings mainly reflect economic sectors, although in a few cases, they are a combination of industry and occupation. We also looked at exposure rates solely by occupation. In particular, we examined the 22 major occupations in the Standard Occupational Classification system. These are as follows:

- 11 Management Occupations
- 13 Business and Financial Operations Occupations
- 15 Computer and Mathematical Occupations
- 17 Architecture and Engineering Occupations
- 19 Life, Physical, and Social Science Occupations
- 21 Community and Social Services Occupations
- 23 Legal Occupations
- 25 Education, Training, and Library Occupations
- 27 Arts, Design, Entertainment, Sports, and Media Occupations
- 29 Healthcare Practitioners and Technical Occupations
- 31 Healthcare Support Occupations
- 33 Protective Services Occupations
- 35 Food Preparation and Service Related Occupations
- 37 Building and Grounds Cleaning and Maintenance Occupations
- 39 Personal Care and Service Occupations
- 41 Sales and Related Occupations
- 43 Office and Administrative Support Occupations
- 45 Farming, Fishing, and Forestry Occupations
- 47 Construction and Extraction Occupations
- 49 Installation, Maintenance, and Repair Occupations
- 51 Production Occupations
- 53 Transportation and Material Moving Occupations

7.2.2.1 Percentage of compensable claims that are OD claims and distribution of compensable OD claims by occupation. The claims data include SOC code, and Table 7.8

displays the percentage of compensable claims that are OD claims for the major occupational groups listed above. The occupations with the highest OD percentages are Legal Occupations, Computer and Mathematical Occupations, Business and Financial Operations Occupations, and Office and Administrative Support Occupations. These are occupations with low incidence of injury claims, hence high relative incidence of OD claims. The percentage of all compensable claims that are OD claims for these occupational groups are about 20 to 30 percent, 15 to 25 percent, 15 to 20 percent, and 12 to 18 percent, respectively. The occupations with the lowest percentages of OD claims—generally three percent or less—are Education, Training, and Library Occupations; Protective Services Occupations; Farming, Fishing, and Forestry Occupations; and Transportation and Material Moving Occupations.

Table 7.8 Percentages of Compensable Claims that are OD Claims (Hearing Loss Excluded), by Occupation and Year

Injury year	Mgmt.	Bus./Fin.	Comp./Math	Arch./Eng.	Life, Phys.,	Comm./Soc. Srv.	Legal	Ed., Trn., Lib	Arts/Ent er.	Health Prac.	Health Supp.
2000	7.8	22.7	15.2	5.7	5.6	5.4	30.6	1.0	7.9	4.8	3.6
2001	7.8	20.8	24.7	5.7	7.0	4.4	23.3	1.9	6.8	5.4	3.3
2002	6.4	20.6	24.7	7.8	6.1	3.4	27.9	1.9	5.8	4.5	3.9
2003	7.2	24.7	14.9	6.0	9.8	4.7	26.8	2.3	6.0	3.9	3.8
2004	9.3	17.8	25.6	7.2	11.5	5.7	27.5	1.6	5.7	5.1	4.5
2005	8.3	18.9	20.0	4.4	10.9	7.1	29.0	2.0	6.7	6.4	3.8
2006	6.5	18.6	15.7	4.6	9.3	3.3	33.3	1.7	5.2	5.7	4.8
2007	7.6	21.2	13.1	7.8	9.8	4.4	33.3	1.9	7.2	5.7	5.2
2008	6.6	15.2	16.4	13.3	10.7	3.6	18.8	1.2	7.0	7.0	6.7
2009	7.1	19.8	13.9	7.1	5.3	3.7	28.1	1.1	6.6	5.1	5.1
2010	7.5	15.2	16.5	7.3	9.7	5.6	27.0	1.8	7.1	5.4	5.6

Injury year	Protect.	Food prep/srv.	Bldg./Grounds	Pers. Care	Sales	Office Supp.	Farm, Fish.	Const., Extr.	Install./Oth	Production	Transp.
2000	1.5	7.5	4.5	8.7	4.6	15.2	2.7	5.7	5.1	7.9	3.0
2001	1.8	6.6	4.5	9.5	4.4	16.0	3.8	5.9	4.2	7.9	3.2
2002	1.7	7.1	4.2	9.9	5.7	16.1	3.8	6.6	4.4	8.9	3.2
2003	1.8	7.3	4.1	10.1	6.7	18.3	3.4	6.6	5.6	8.4	3.7
2004	1.3	7.3	5.0	7.7	5.6	14.6	3.0	6.7	5.4	8.5	3.7
2005	1.7	7.2	5.6	9.3	5.8	13.7	3.0	7.3	6.0	8.2	3.7
2006	1.7	7.7	5.2	8.1	5.4	13.0	3.2	6.3	5.3	8.2	3.7
2007	1.5	6.3	5.3	8.7	4.6	13.4	3.0	6.6	5.2	9.3	4.1
2008	1.2	7.3	3.6	9.1	4.8	13.7	3.2	6.6	5.3	10.1	4.3
2009	1.1	7.5	4.4	7.1	5.0	14.1	3.0	9.2	6.6	9.8	4.0
2010	1.8	6.4	5.4	6.6	3.7	13.1	2.8	8.2	6.3	10.3	4.3

SOURCE: Authors' tabulations of claims data. Table entries are percentages of compensable claims in an occupation that are OD claims. The SOC code is missing on 90 percent or more of the claims for 1997 to 1999.

Table 7.9 exhibits the distribution of compensable OD claims across the major occupational groups, and the distribution is somewhat correlated with the size of the occupation. Production Occupations, Construction and Extraction Occupations, Office and Administrative Support Occupations, and Transportation and Material Moving Occupations have over half of

the OD claims, and they are four of the six largest occupations, although their share of total state civilian employment is only about 35 percent.

Table 7.9 Percentage Distribution of Compensable OD Claims Across Occupations (Hearing Loss Excluded), by Year

Injury year	Mgmt.	Bus./Fin.	Comp./ Math	Arch./ Eng.	Life, Phys.,	Comm./ Soc. Srv.	Legal	Ed., Trn., Lib	Arts/ Enter.	Health Prac.	Health Supp.
2000	2.8	1.5	0.5	0.6	0.2	0.6	0.4	0.3	0.8	2.8	2.6
2001	3.6	1.3	0.8	0.4	0.2	0.5	0.4	0.5	0.6	3.4	2.4
2002	2.7	1.4	0.8	0.7	0.2	0.3	0.5	0.5	0.6	3.0	2.9
2003	3.7	1.5	0.4	0.5	0.3	0.5	0.5	0.6	0.7	2.4	2.5
2004	3.5	1.3	0.8	0.6	0.4	0.7	0.4	0.5	0.5	3.0	3.0
2005	3.0	1.1	0.5	0.3	0.4	0.8	0.4	0.5	0.8	3.7	2.3
2006	2.4	1.1	0.5	0.3	0.3	0.4	0.5	0.5	0.7	3.6	3.2
2007	2.4	1.4	0.4	0.5	0.3	0.6	0.5	0.5	0.7	3.6	3.0
2008	2.4	1.2	0.7	1.0	0.5	0.6	0.2	0.3	0.9	4.3	4.1
2009	2.8	1.3	0.4	0.5	0.2	0.7	0.4	0.4	0.7	3.4	3.6
2010	3.1	1.2	0.6	0.5	0.4	1.0	0.5	0.6	1.0	4.3	3.8

Injury year	Protec- tive	Food prep/srv.	Bldg./ Grounds	Pers. Care	Sales	Office Supp.	Farm, Fish.	Const., Extr.	Install./ Oth	Produc- tion	Transp.
2000	0.8	7.5	4.4	2.3	4.1	14.1	1.8	15.2	7.5	17.3	12.0
2001	1.0	6.2	4.5	2.8	4.1	14.7	2.3	15.3	6.6	16.1	12.4
2002	1.1	6.9	4.2	2.8	5.4	14.6	2.2	15.2	6.6	16.1	11.4
2003	1.1	6.3	3.5	2.5	5.5	15.8	1.8	14.3	7.4	16.8	11.3
2004	0.8	6.6	4.7	2.5	5.1	14.1	1.6	14.6	7.0	18.1	10.3
2005	1.0	6.1	4.8	2.9	5.1	13.0	1.5	16.9	7.2	17.6	10.1
2006	1.1	7.0	4.6	3.0	5.4	12.9	1.7	16.3	7.0	17.5	10.2
2007	0.9	5.8	4.8	3.4	4.4	13.1	1.6	17.3	7.0	16.4	11.1
2008	0.8	6.1	3.3	3.6	4.3	13.6	1.7	15.9	7.2	16.1	11.2
2009	0.8	6.4	4.3	2.8	4.4	13.6	1.8	17.1	9.7	14.9	9.9
2010	1.4	5.7	5.6	3.5	3.4	12.4	1.7	12.9	9.2	16.1	11.3

SOURCE: Authors' tabulations of claims data. Table entries are percentages of compensable OD claims in occupation.

7.2.2.2 Occupational incidence of compensable OD claims. The U.S. Bureau of Labor Statistics Occupational Employment Statistics (OES) program maintains estimates of employment by occupation, which we have used to look at trends in claim incidence by occupation. In particular, the OES program has data on number of employees in each major occupational class, by state, at a particular point in time each year. The data in Table 7.10 come from this program. It shows the number of employees in the state in each of the major occupations as reported in the May Current Population Survey (CPS), by year.

We have divided the number of compensable OD claims in an occupation by employees (in 000s) in that occupational class to derive an incidence measure for each of the occupations.⁸⁷ Overall the state average annual incidence of compensable OD claims over the 1999 to 2009

⁸⁷ In the above section discussing incidence of claims by industry group, we noted that the incidence of claims for the state overall was between 1.1 and 1.4 compensable OD claims per 1000 FTEs, using 2000 hours for an FTE. The occupational data being discussed in this section are based on employees during a particular month of the year. Thus the incidence statistics noted here are compensable OD claims per 1000 employees.

**Table 7.10 Civilian Occupational Employment in Washington, by SOC Code and Year
(entries are employees in 000s)**

SOC	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
11 Mgmt.	125.8	107.8	93.7	89.9	83.4	80.7	78.9	80.5	88.2	100.3	113.2	120.4
13 Business,Fin.	108.7	112.1	116.5	116.5	119.9	120	121.4	126	131.2	136	136.7	139.8
15 Comp.,Math.	77.2	92.4	83.7	83.9	84.2	85.6	88.5	93.5	103	107	112	108.1
17 Arch.,Engr.	71.9	73.9	75.8	69.3	68.8	66.2	70	73.3	77.3	81.8	79.8	76.8
19 Life, Phys, Soc. Sci.	28.6	31.4	33.2	34.5	36.4	40	40.4	42.8	43.7	44.1	44.4	36.4
21 Comm., Soc. Srv	36.6	39.3	40.1	41	43.5	42.9	44.9	44.7	46.8	48.4	45.7	45.6
23 Legal	20.8	21.2	21.7	21.7	21.5	20.3	21	20.2	20.2	20	20.8	20.9
25 Educ., Trng, Lib.	159.5	155.2	158.1	157.6	161.4	159.2	160	158.8	161.3	167	165.4	166.2
27 Arts, Media	32.6	37.8	36.5	36.1	37.4	37.1	37.4	39.4	41.3	41.1	40.9	40
29 Health Prac.	105.7	118.6	119.8	119.8	121.9	122.1	126.5	128.7	131.6	138	142.1	141.7
31 Health Supp.	58.4	60.7	62.7	65.4	66.6	63.7	64.5	67.7	67.3	72.8	71.4	75.4
33 Protective	47.1	51.7	55.5	52.7	51.7	50.8	52.6	50.5	53.6	50.8	57.8	54.7
35 Food prep/serv	216.6	216.2	212.2	214.3	215.6	218.6	225.6	236.6	243.6	250	243.1	235.4
37 Bldg. Mtnc.	75.1	73.3	73.2	72.7	72.4	73.8	75.2	78.9	80.3	80.5	77.7	76.5
39 Pers. Care	60	59.4	59.2	63.8	61.4	72.3	73.5	82.1	82.7	86.5	87	81.2
41 Sales	267.3	283.9	285.8	278.5	285.7	289.5	295.9	299.6	301.8	305	288.7	285.1
43 Office/Admin	448.8	443.4	434.8	438	440.2	441.1	447.3	457.6	466.4	467	443	417.5
45 Farm, Fish, For	16.4	17	15.4	15.3	12.9	12.5	14.9	15.8	15	15	15	14.7
47 Constr., Extr.	131.9	136.9	130.7	135.1	131.9	134.5	145	151.7	163.8	168	144.4	119.9
49 Install/Repair	115.7	116.5	111.2	107.3	107	106.4	110.3	113.7	114.5	112	106.6	106.2
51 Production	186.5	183.9	164.7	155.6	148.8	150.3	158	168.4	171.7	177	158.9	147.6
53 Transport.	193.6	202.4	196.4	194.7	189.1	195.5	201.8	206.5	206.5	205	195.2	183.4
all All Civilian	2585	2635	2581	2564	2562	2583	2653	2737	2812	2869	2790	2693

SOURCE: U.S. Bureau of Labor Statistics (BLS) Occupational Employment Statistics.

period is 1.1 per 1000 employees. The occupations that have the highest rates of incidence are Farming, Fishing, and Forestry Occupations (average of 3.5 compensable OD claims per 1000 employees in that occupation over the 1999 to 2009 period); Construction and Extraction Occupations (average of 3.1 compensable OD claims per 1000 employees); Production Occupations (average of 2.8 compensable OD claims per 1000 employees); and Installation, Maintenance, and Repair Occupations (average of 1.9 compensable OD claims per 1000 employees). The occupations with the lowest rates of incidence are Education, Training, and Library Occupations (average of 0.1 compensable OD claims per 1000 employees); Computer and Mathematical Occupations (average of 0.2 compensable OD claims per 1000 employees); Architecture and Engineering Occupations (average of 0.2 compensable OD claims per 1000 employees); and Life, Physical, and Social Science Occupations (average of 0.2 compensable OD claims per 1000 employees).

7.3 Diagnoses

7.3.1 Compensated OD Claims

The first analysis of accepted diagnoses is to examine the changes over time. Table 7.11 shows the distribution of compensable OD claims by their first accepted diagnosis by year for

the five most prominent diagnoses.⁸⁸ The most noticeable trend that is exhibited in the table is the virtually uninterrupted downward trend in carpal tunnel syndrome (CTS). Its share of the first accepted diagnoses of OD claims dropped from over half to almost one-third over the period. The proportion of shoulder afflictions and joint pain both increased irregularly through our observation period.

Table 7.11 Percentage Distribution of First Accepted Diagnosis for Compensated OD Claims, by Year

Year	Carpal Tunnel Syndrome (354.0)	Synovitis and teno-synovitis (727.0)	Enthesopathy of elbow region (726.3)	Rotator cuff syndrome of shoulder and allied (726.1)	Pain in joint (719.4)	All Other
1997	50.2	9.4	4.8	2.9	1.6	31.1
1998	47.2	9.3	4.9	3.6	2.3	32.7
1999	46.2	9.4	5.5	3.9	2.2	32.8
2000	45.4	8.6	6.4	3.8	2.2	33.6
2001	44.2	8.5	6.7	4.2	2.9	33.5
2002	46.1	8.0	6.3	4.0	2.5	33.1
2003	42.9	8.8	6.0	3.7	3.4	35.2
2004	41.1	7.3	5.8	4.9	2.7	38.2
2005	40.2	7.9	5.9	4.4	3.4	38.2
2006	36.9	6.8	6.6	4.2	3.6	41.9
2007	35.9	7.7	6.2	4.1	4.1	42.0
2008	36.4	8.0	4.5	3.9	4.5	42.7
2009	35.5	6.4	4.9	3.5	4.7	45.0

NOTE: ICD9 codes in parentheses. Hearing loss excluded.

SOURCE: Authors' tabulations of accepted diagnoses from all compensable OD claims in which diagnoses data are available (mainly state fund, but includes a few self-insured claims).

Table 7.12 displays the percentage of OD claims for which these diagnoses were present whether or not they were the first diagnosis. In this case the distribution across all diagnoses adds up to more than 100 percent. Again, there is a significant drop in the percentage of claims for which CTS is an accepted diagnosis—from 60.9 percent to 45.4 percent. There seem to be upward trends in the final three diagnoses presented in the table: Enthesopathy of the elbow region; Rotator cuff syndrome of shoulder and allied diagnoses; and Neck pain. There has been a significant increase in the number of diagnoses per claim over the observation period.

The allowable diagnoses data represented here come mainly from state fund claims since 60 to 80 percent of the self-insured claims do not contain diagnosis data. This reflects the reduced reporting requirements for self-insured claims. For the state fund, the norm is to have three or more accepted diagnoses in the OD claim record. Furthermore, the percentage of claims with three or more diagnoses trended upward over time as shown in Table 7.13. The percentage of compensable state fund OD claims with three or more accepted diagnoses rose from 43.6 percent to 62.1 percent between 1997 and 2009.

⁸⁸ Occupational disease claims tend to have complex history and etiology. The majority of OD claims have more than one diagnostic code. We have selected the diagnosis that is listed first by the treating physician as that is coded by L&I.

Table 7.12 Accepted Diagnoses for Compensated OD Claims, by Year

Year	Carpal Tunnel Syndrome (354.0)	Synovitis and tenosynovitis (727.0)	Enthesopathy of elbow region (726.3)	Rotator cuff syndrome of shoulder and allied (726.1)	Neck pain (847.0)
1997	60.9	20.0	10.7	5.8	5.0
1998	58.8	19.3	10.6	5.9	4.3
1999	57.2	19.3	11.3	6.6	5.3
2000	58.3	19.4	13.5	6.7	4.6
2001	56.1	20.6	14.3	7.7	5.7
2002	58.8	19.6	13.8	7.8	5.5
2003	57.0	21.9	13.6	7.7	6.6
2004	55.3	21.1	12.2	9.0	6.1
2005	52.5	20.3	13.3	8.6	6.3
2006	49.0	18.8	13.2	8.8	7.8
2007	47.9	19.6	13.9	8.4	8.0
2008	49.8	20.0	11.2	8.7	8.0
2009	48.6	19.2	12.4	8.8	7.1

NOTE: Table entries are percent of claims with diagnosis among accepted diagnoses. ICD9 codes in parentheses.
 SOURCE: Authors' tabulations of accepted diagnoses from all compensable OD claims in which diagnoses data are available (mainly state fund, but includes a few self-insured claims).

Table 7.13 Percentage Distribution of Number of Accepted Diagnoses per Compensated OD Claim, by Year

Year	Number of Diagnoses			
	Zero	One	Two	Three or More
1997	1.5	12.7	42.2	43.6
1998	0.7	10.5	43.9	44.9
1999	1.4	9.7	42.4	46.6
2000	1.3	7.8	40.2	50.7
2001	0.8	7.8	40.5	50.9
2002	0.6	7.3	40.7	51.4
2003	0.6	6.4	38.6	54.3
2004	0.7	6.6	36.3	56.4
2005	0.5	5.5	37.6	56.4
2006	0.5	6.5	33.3	59.7
2007	0.5	6.1	34.3	59.1
2008	0.3	5.3	33.0	61.4
2009	0.4	5.9	31.6	62.1

NOTE: Entries are percentages.
 SOURCE: Authors' tabulations of accepted diagnoses from all compensable OD claims in which diagnoses data are available (mainly state fund, but includes a few self-insured claims).

7.3.2 Denied OD Claims

Table 7.14 provides information about the diagnoses among denied claims. It lists the most prevalent diagnoses provided by treating physicians among denied claims. Again, the percentages sum to greater than 100% because many claims have multiple diagnoses.

Table 7.14 Percentage Distribution of Diagnoses Recorded for Denied OD Claims, by Year

Year	Carpal Tunnel Syndrome (354.0)	Synovitis and teno-synovitis (727.0)	Enthesopathy of elbow region (726.3)	Rotator cuff syndrome of shoulder and allied (726.1)	Pain in joint (719.4)	Other specified personal history presenting hazards to health (V15.8)	All Other
1997	46.3	11.4	6.0	2.7	2.0	2.7	28.9
1998	30.9	11.4	7.3	4.1	7.3	4.5	34.5
1999	34.4	13.9	8.7	2.8	4.9	4.5	30.8
2000	39.1	14.2	8.0	4.4	4.7	5.5	24.1
2001	42.0	18.9	7.8	1.6	3.6	6.2	19.9
2002	35.5	15.7	8.3	6.2	7.7	3.4	23.2
2003	31.5	14.5	7.9	5.2	3.6	6.1	31.2
2004	28.9	16.2	7.5	4.3	6.6	3.5	33.0
2005	25.6	13.6	6.4	5.2	8.8	2.8	37.6
2006	25.8	13.6	8.1	3.1	4.7	--	43.9
2007	27.1	12.9	6.7	4.8	4.3	7.1	37.1
2008	29.8	14.5	8.4	2.3	6.1	3.8	35.1
2009	28.4	11.5	6.1	4.7	6.8	4.1	38.4

NOTE: -- means less than 1.0%. ICD9 codes in parentheses.

SOURCE: Authors' tabulations of accepted diagnoses from all compensable OD claims in which diagnoses data are available (mainly state fund, but includes a few self-insured claims).

Table 7.15 displays the percentage of claims that include a particular diagnosis that are accepted for compensation as opposed to being denied for the six most numerous diagnoses. The time trends for these "acceptance" rates seem fairly consistent for each diagnosis. The percentages decrease until 2002 and then they increase. The relatively high percentages for the later years may be lessened as claims age.

Table 7.15 Acceptance Rates for Compensation as an OD, for Selected Diagnoses, by Year

Year	Carpal Tunnel Syndrome (354.0)	Synovitis and teno-synovitis (727.0)	Enthesopathy of elbow region (726.3)	Rotator cuff syndrome of shoulder and allied (726.1)	Pain in joint (719.4)	Neck pain (847.0)
1997	95.5	96.6	96.6	97.2	96.0	96.8
1998	95.6	95.0	94.3	94.2	83.3	95.5
1999	94.1	93.0	92.6	95.8	86.7	93.6
2000	93.9	93.3	94.5	88.0	88.1	90.9
2001	91.9	90.3	94.0	97.6	83.0	95.5
2002	93.1	91.1	93.1	91.2	81.1	91.8
2003	93.8	92.6	93.5	92.6	92.2	95.7
2004	93.7	91.1	92.7	94.2	85.3	91.1
2005	95.8	94.3	95.8	94.8	91.8	93.0
2006	94.6	92.7	93.7	96.4	91.8	94.2
2007	95.8	95.2	96.2	95.8	95.5	95.2
2008	97.0	96.4	96.3	98.7	94.8	95.8
2009	96.3	96.2	97.2	96.6	94.4	90.4

NOTE: Entries are percentages.

SOURCE: Authors' tabulations of accepted diagnoses from all compensable OD claims in which diagnoses data are available (mainly state fund, but includes a few self-insured claims).

7.4 Pre-Existing Conditions or Prior Claims

The two previous sections examined two sets of causal variables: exposure and diagnoses. In this section, we examine another set of characteristics that are thought to be related to compensable claims, which are pre-existing conditions. Recorded in the data are two variables reported by the attending physician that are related to whether the claimant had a pre-existing condition. The first is an indicator variable (0 or 1) denoting whether the claimant had received any prior treatment for the diagnosis. The second is an indicator variable recording whether, in the opinion of the treating physician, the claimant had a pre-existing impairment (related or unrelated to the claim.). Unfortunately, these variables are missing (i.e., not recorded) for over half of the claims including virtually all of the self-insured claims.

This section also analyzes the number of prior workers' compensation claims that a claimant may have had, according to L&I data. Of course, the number of prior claims is truncated by our start date of 1997, so it underestimates this phenomenon.

7.4.1 Pre-Existing Conditions

It appears as though there is an upward trend in the percentage of compensable OD claims that have either or both prior treatment for the diagnosis and a pre-existing impairment. Figure 7.14 displays the percentage of OD claims for the two characteristics. Among the claims that have an indicator for a pre-existing impairment, around 10 percent of the claims are OD claims and the other 90 percent are injury claims. This is a slightly higher percentage than in the overall sample suggesting that having a pre-existing impairment is somewhat correlated with OD claims. As seen in the graph, among the claims with the indicator for prior treatment, the percentage of claims that are OD claims is about 12 to 14 percent suggesting a slightly stronger correlation between having had prior treatment and having a compensable OD claim.

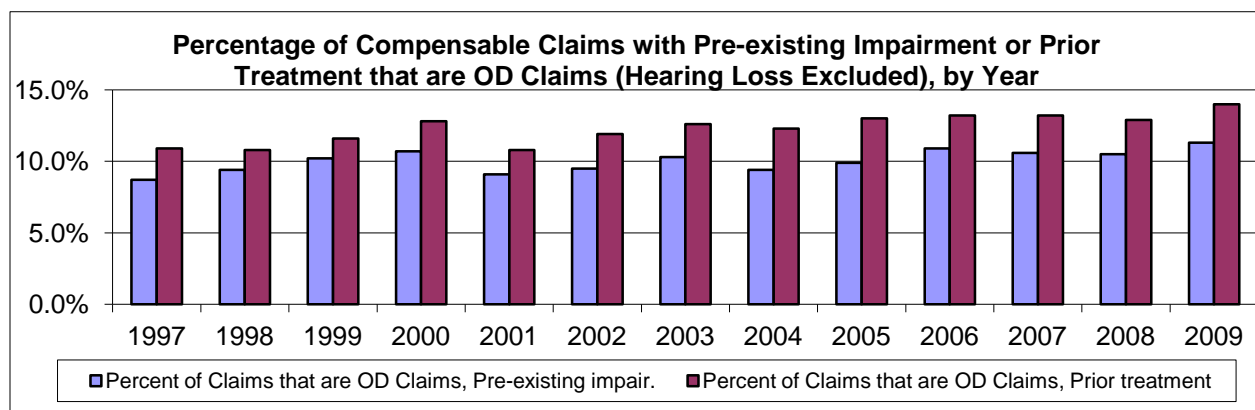


Figure 7.14 Percent of Compensable Claims that are OD Claims, by Existence of Pre-Existing Conditions and Year.

Figure 7.15 shows the percentage of OD claims that indicate a pre-existing impairment and in which prior treatment is reported. As seen in the figure, about 10 to 15 percent of OD claims have the indicator for having a pre-existing impairment, and about 17 to 23 percent have

the indicator for having prior treatment for the disability. Both series in the figure are trending upward, but are likely biased downward by reporting deficiencies.

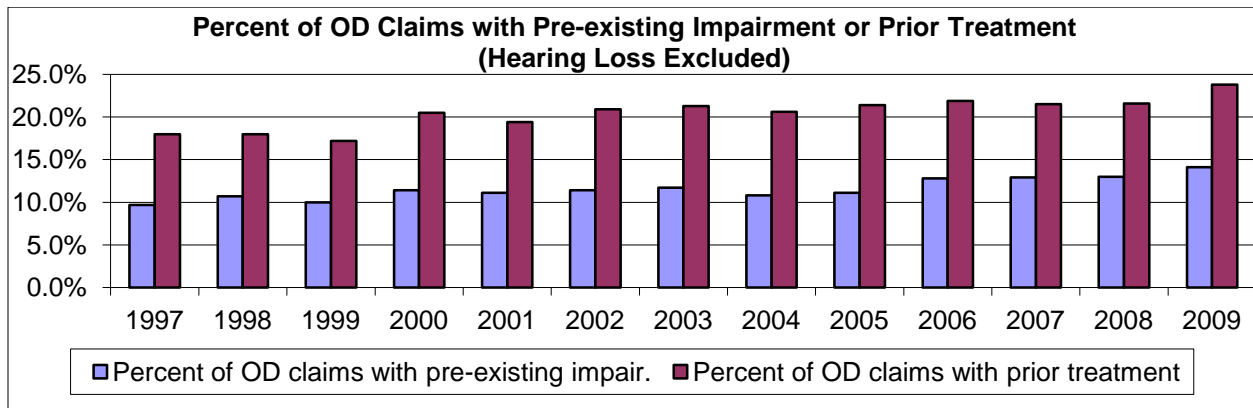


Figure 7.15 Percentage of Compensable OD Claims with Pre-Existing Conditions, by Year.

We examined the benefits that were paid out under both of these conditions and found that, on average, such claims were more expensive and involved more time loss than the typical OD claim. The benefits that were paid out and time loss sustained were more than 50 percent larger for claims where there was a pre-existing impairment, and were between 25 and 50 percent higher for claims where there had been prior treatment.

7.4.2 Multiple Claims

Most of the claims records that were accessed provide an identification number for the claimant. Using that number, we can match claims to see whether individuals had multiple claims during the period of time from 1997 onward. In fact, there are a substantial number of claimants with multiple successful claims as well as multiple denied claims. The compensable OD claims that we accessed totaled about 40,500 through March 2012. These claims come from about 37,700 individuals. Just under 94 percent of these individuals have a single compensable OD claim--a little over six percent have two or more compensable OD claims (maximum of six). Of the 37,700 individuals with a compensable OD claim, a little over 30 percent also have one or more compensable injury claims. A little over 10 percent have at least one denied OD claim.

7.5 Demographic and Other Characteristics

7.5.1 Age

As with other characteristics, this section of the report will first look at the percentage of claims that are OD claims by age, and then we will look at the distribution of OD claims across age groups. Table 7.16 displays these percentages. Clearly the importance of OD claims is greatest for workers over the age of 40. For these workers, the percentage of compensable claims that are OD claims is roughly between 7.0 and 8.5 percent. For workers under 30, the percentages are in the 1.0 to 4.0 percent range. Thus occupational disease claims make up a significantly greater proportion of all workers' compensation claims for older workers.

Table 7.16 Percentage of Compensable Claims that are OD Claims (Hearing Loss Excluded), by Age and by Year

Year	< 20	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	> 65
1997	1.3	2.0	3.7	4.0	5.0	5.1	5.8	5.6	5.9	5.8	6.5
1998	1.1	2.0	3.2	4.0	4.9	5.7	5.6	6.5	6.0	5.1	8.0
1999	1.5	2.5	3.9	4.7	5.8	6.2	5.7	6.3	6.3	6.2	8.8
2000	0.9	2.1	3.8	4.9	5.7	7.0	6.6	7.3	6.2	7.5	9.9
2001	1.3	2.2	3.9	4.8	6.0	6.2	7.1	7.0	6.7	6.1	6.2
2002	1.6	3.0	4.0	5.6	5.6	6.2	7.5	7.1	7.2	6.3	7.6
2003	1.1	3.0	3.7	5.4	6.7	7.1	7.3	7.5	8.3	8.3	5.3
2004	1.3	2.5	4.3	5.1	5.7	7.0	7.2	8.2	8.6	8.3	7.0
2005	2.0	2.4	5.3	5.4	6.6	7.3	7.4	8.5	8.2	7.1	5.4
2006	1.5	2.3	5.3	5.3	6.2	7.0	7.7	7.4	6.9	6.0	4.6
2007	1.3	2.6	5.0	5.3	6.0	6.6	7.8	8.0	7.6	6.9	4.6
2008	1.2	2.8	3.9	5.3	6.3	7.0	7.7	7.4	7.6	6.6	5.0
2009	0.8	2.4	4.2	5.3	6.8	6.9	7.7	7.9	7.7	6.6	5.8

NOTE: Table entries are percentages of compensable claims in age group that are OD claims.
SOURCE: Authors' tabulations of claims data.

In Table 7.17, we display the distribution of OD claims by age. That is, the entries in the table are the share of all OD claims in which the claimant is in that age group. The row totals are 100 percent. Interestingly, over time the trend has been toward more and more claims from individuals in the age range from 45 to 64. The percentage of claims for workers over 65 has been more or less constant. That is, in examining the columns of Table 7.17, we see that the percentage of OD claims for the age groups declines fairly uniformly for all age groups less than age 45, and increases in the groups between 45 and 64.

Table 7.17 Percentage Distribution of Compensable OD Claims (Hearing Loss Excluded), by Age and by Year

Year	< 20	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	> 65
1997	0.9	4.1	10.4	12.5	18.3	16.9	15.1	10.5	6.7	3.1	1.5
1998	0.7	3.8	8.2	11.7	17.0	19.2	15.2	12.6	7.1	2.7	1.8
1999	0.8	4.3	8.4	11.8	17.7	19.1	14.6	11.4	6.8	3.2	1.9
2000	0.4	3.2	7.2	11.0	15.6	20.2	15.9	13.4	7.2	3.9	2.0
2001	0.6	3.5	6.7	10.8	15.8	17.8	17.9	14.2	7.9	3.4	1.4
2002	0.7	4.3	6.4	11.2	13.1	17.0	18.6	14.1	9.2	3.7	1.7
2003	0.4	4.1	5.7	9.9	13.5	17.3	17.7	14.7	10.4	5.1	1.2
2004	0.5	3.4	6.7	9.1	11.4	17.2	17.5	16.1	11.5	5.1	1.7
2005	0.7	3.3	6.5	9.0	12.6	16.7	17.2	17.0	11.1	4.5	1.3
2006	0.6	3.4	7.2	9.0	12.5	16.4	19.1	15.9	10.4	4.2	1.3
2007	0.5	3.6	6.6	8.9	11.8	14.1	18.8	17.4	11.7	5.4	1.3
2008	0.4	3.6	6.4	8.8	11.8	14.4	18.0	16.9	12.4	5.6	1.6
2009	0.2	2.7	6.6	8.6	11.9	13.6	17.4	17.6	12.9	6.3	2.3

NOTE: Table entries are percentages of compensable OD claims in age group.
SOURCE: Authors' tabulations of claims data.

A question of interest is the extent to which the increase in the percentage of OD claims for the older age groups is related to age trends in the overall workforce. The demographic analysis of the workforce shows increasing average ages. Table 7.18 presents the age distribution

of Washington workers using data from the Current Population Survey. The table shows that the percentage of workers age 45 to 64 was 32.3 percent in 1997 and 40.4 percent in 2009.

Table 7.17 shows that the percentage of compensable OD claims for the 45-64 year old group was 35.4 percent (almost exactly proportional to their share of the workforce) in 1997 and 54.2 percent (a disproportionately large share compared to the workforce) in 2010. Examining workers aged 60 and older shows a less than proportional increase in the share of compensable OD claims. In 1997, the percentage of the workforce 60 and over was 4.6 percent and in 2009 it was 10.2 percent (approximately 120 percent increase). The share of compensable OD claims, excluding hearing loss from these older workers, in these two years went from 4.6 percent to 8.6 percent.

Table 7.18 Percentage Distribution of Washington’s Workforce by Age, by Year

Year	< 20	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	> 65
1997	3.7	8.5	12.5	12.3	15.1	13.8	13.1	10.1	6.3	2.8	1.8
1998	3.4	8.9	11.8	11.7	13.8	14.3	14.1	10.0	6.6	3.5	2.0
1999	3.1	10.1	10.9	12.0	14.4	13.6	13.3	10.0	7.1	3.5	2.0
2000	3.6	9.9	10.9	11.9	15.8	13.4	12.2	9.8	6.6	4.0	2.1
2001	3.4	11.6	10.6	12.4	13.8	13.9	12.3	10.7	5.7	3.5	2.1
2002	3.6	9.3	10.8	12.6	12.2	13.9	12.3	10.8	7.9	4.4	2.3
2003	3.2	10.4	10.2	11.5	11.4	14.0	12.7	11.6	8.3	4.0	2.6
2004	2.8	10.6	10.6	11.0	11.5	13.1	13.9	11.6	8.3	4.3	2.3
2005	2.5	9.1	10.4	11.0	11.9	13.1	13.6	12.3	8.9	4.6	2.5
2006	2.8	9.2	10.3	11.0	12.0	12.6	12.7	12.5	9.6	4.7	2.6
2007	2.8	9.4	11.7	11.1	10.6	12.4	12.4	11.9	9.6	5.1	3.0
2008	2.0	9.5	11.8	10.3	11.2	11.9	12.6	11.8	9.3	5.7	3.7
2009	2.0	8.9	11.1	11.0	11.1	11.5	12.9	11.9	9.3	6.3	3.9

SOURCE: Current Population Survey, various years.

7.5.2 Sex and Marital Status

As Figure 7.16 shows, the majority of compensable OD claims were from female claimants in most years (2009 is the exception). This is not true for injury claims. However, the trend over the analysis period is definitely toward a reduction in the percentage of female claimants. Through 2001, the percent of OD claims that were from females was on the order of 55 to 58 percent. Toward the end of the 2000s, the percentage had dropped to about 50 to 51 percent. On the other hand, the percentage of women in the Washington workforce has increased slightly over the analysis period from about 45 percent to 47 percent according to BLS statistics. Thus women are still slightly overrepresented in the population of OD claimants, but the shares for women and men were moving toward being more equal.

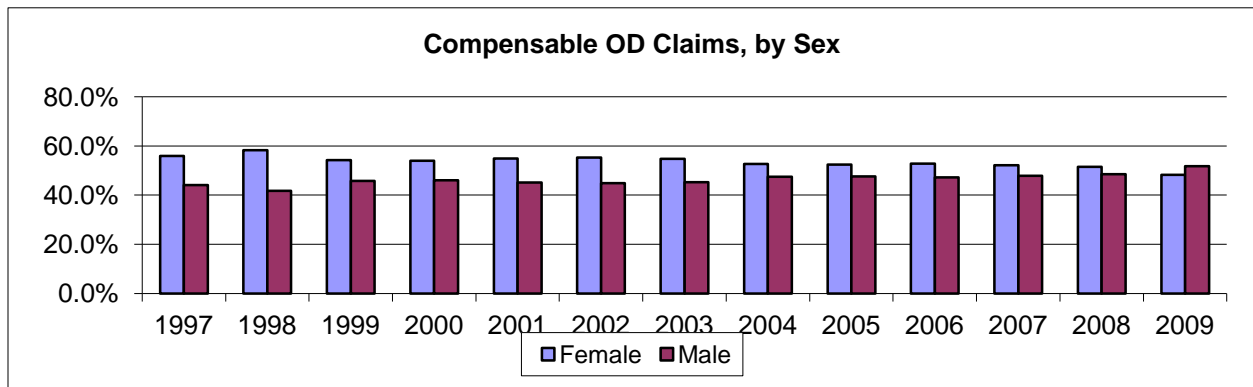


Figure 7.16 Compensable OD Claims, by Sex and by Year.

According to the CPS workforce data, there is no consistent trend in the marital status of Washington workers between 1997 and 2010. The percentage of unmarried workers increased substantially between 1997 and 2002, but then it decreased substantially and cycled back and forth between increasing and decreasing over the rest of the time period. All in all, the percentage of unmarried workers is between 38 and 43 percent. As shown in Figure 7.17, that is just slightly lower than the percentage of OD claims from unmarried workers. The difference between the share of workers being married or unmarried and the share of OD claims from married or unmarried claimants is so small that it appears that marital status is not a determining factor in such claims. This is despite the fact that time-loss benefits in Washington reflect the worker’s marital and dependency status.

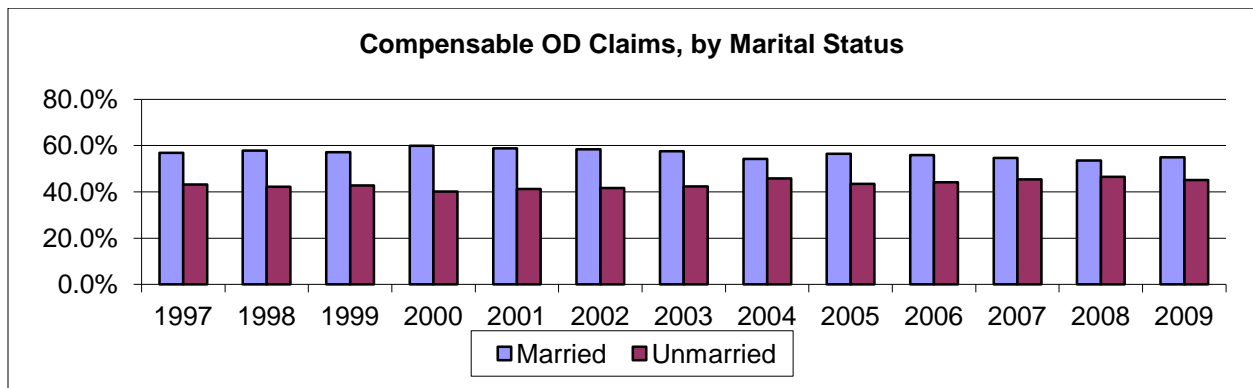


Figure 7.17 Compensable OD Claims, by Marital Status and by Year.

7.6 Multivariate Analyses of Claim Denials

The previous sections of this report have presented trends by examining or graphing time series data. A more robust method for analyzing data is to use multivariate analyses that control for several variables in order to more accurately indicate a likely causal relationship. In this section, we present estimates from multiple regression models that attempt to identify factors that are associated with OD claims being accepted or denied. A key variable in these analyses is the age of the claimant. This reflects concern about “diseases of natural aging” in the workers’ compensation system.

To conduct the analysis, we limited the data that we had obtained from the Washington L&I data warehouse to accepted compensable OD claims and to denied OD claims that had the following administrative rejection codes:

- 01 No proof of a specific injury at a definite time and place in the course of employment
- 2A Claimant's condition is not the result of exposure alleged
- 04 Claimant's condition pre-existed the alleged injury as defined by the Industrial Insurance Laws
- 6K Department is unable to substantiate if worker was covered at the time of the alleged injury
- 13 Claimant's condition is not an occupational disease as contemplated by section 51.08.140 RCW
- 16 No personal injury was sustained by the claimant
- 17 No personal injury was sustained by the claimant nor occupational disease contracted. Inoculation or other immunological treatment to avoid the occurrence of an infectious occupational disease may be paid for at the department's discretion. Claim is rejected with the understanding the claimant has the right to file a further claim in the event an occupational disease or infection arises as a result of the work-related exposure

This analysis data file has 30,715 observations. Of these 28,104 are compensable OD claims (25,932 state fund and 2,172 self-insured) and 2,611 are denied claims (2,349 state fund and 262 self-insured)⁸⁹. The model that was estimated was as follows:

$$D_{it} = a + b_1 * \text{female}_i + b_2 * \text{age}_{it} + b_3 * \text{multi}_t + b_4 * \text{pre-exist}_i + b_5 * \text{prior}_i + b_6 * \text{legal}_i + b_7 * \text{self-ins}_i + b_8 * \text{CTS}_i + b_9 * \text{numdiag}_i + b_{10} * \text{riskclass}_i + b_{11} * t + e_{it}$$

- where
- D_{it} = 1 if claim i with injury year t was denied; 0 otherwise
 - female_i = 1 if claimant is female; 0 otherwise
 - age_{it} = age of claimant at injury year
 - multi_t = 1 if claimant had an accepted claim for an injury that occurred prior to year t; 0 otherwise
 - pre-exist_i = 1 if claimant had a pre-existing related or unrelated impairment; 0 otherwise
 - prior_i = 1 if claimant had received prior treatment; 0 otherwise
 - legal_i = 1 if claimant had a legal representative; 0 otherwise
 - self-ins_i = 1 if claim involved a self-insured employer; 0 otherwise
 - CTS_i = 1 if one of the accepted diagnoses for claim was carpal tunnel syndrome; 0 otherwise
 - numdiag_i = number of accepted diagnoses for claim

⁸⁹ In other words, the multivariate analyses does not include OD claims that were medical only nor denied claims for codes than those listed above.

riskclass_i = claimant's industry group (agriculture was omitted)
e_{it} = error term

In addition to estimating this model, we estimated it again after restricting the sample to only claims that had carpal tunnel syndrome as one of the accepted diagnoses. It should be noted that a very large share of the self-insured denials did not have diagnoses, so many of them were omitted from this estimation. When we restricted the sample to CTS, we estimated the model twice—with and without a dummy variable indicating that the claim had an additional accepted diagnosis of synovitis or tenosynovitis (ICD9 of 727.0). We re-estimated the model restricting the sample to claims that had at least one diagnosis of neck pain (847.0). The results of these regressions are presented in table 7.19.⁹⁰

Table 7.19 Regression Results—Probability of Denial

Variable	Sample			
	All Diagnoses	CTS	CTS +	Neck Pain
Female	-0.022***	-0.007*	-0.005	-0.014
Age (in years)	-0.002***	-0.001***	-0.001***	-0.000
Multiple claims	-0.077***	-0.037***	-0.038***	-0.076***
Pre-existing	0.021***	0.007	0.007	0.005
Prior impairment	-0.003	0.000	0.001	0.036**
Legal rep	-0.027***	-0.019***	-0.012**	-0.034***
Self-insured	-0.009	0.035***	0.025***	-0.009
CTS diagnosis	-0.064***	--	--	--
Num diagnoses	-0.011***	--	-0.005***	--
Industry group	ns	sig**	sig**	ns
Year	sig***	sig***	sig***	sig**
Diagnosis 727.0	--	--	-0.035*	--
Adjusted R ²	0.0570	0.0196	0.0206	0.0336
Sample Size	30,038	15,503	15,503	1,591

NOTE: ns means variables were not jointly significant in the model; sig implies the variables were jointly significant. *** significant at the 0.01 level; ** significant at the 0.05 level; * significant at the 0.10 level.

These estimates suggest that OD claims are less likely to be denied if the claimant has a prior accepted claim, has legal representation, is a female (except when the sample was limited to only those claims that had a neck pain diagnosis), or is older (except for the neck pain diagnosis sample). OD claims are also less likely to be denied if they have a CTS diagnosis or if they have multiple accepted diagnoses. Having a pre-existing impairment increases the likelihood of denial in the overall sample, but it did not have statistical significance in estimates

⁹⁰ Although the model has a limited dependent variable, the estimation was done with Ordinary Least Squares (OLS) to ease the interpretation of the coefficients. The models were also estimated with Logit, and those estimates, which virtually all have the same sign and significance as the OLS estimate, are available by request. All of the independent variables except for Age and Number of Accepted diagnoses are 0-1 dummy variables. The estimated coefficients for these variables represent the change in the probability of denial in percentage points. For example, the first coefficient in the table, -0.022, indicates that for an otherwise average claimant, if the claim is from a female rather than a male, it is 2.2 percentage points less likely to be denied. For the continuous variables, age and number of diagnosis, the coefficient is the change in the probability of denial for one additional unit (year or diagnosis). For example, the second coefficient in the first column, -0.002, indicates that for an otherwise average claimant, an individual who is one year older than average has a reduced probability of denial of 0.2 percentage points.

that were made when the sample was limited to claims that had a CTS diagnosis and when the sample was limited to claims that had a neck pain diagnosis. Having prior treatment for the injury increased the likelihood of a denial in the neck pain sample, but it was insignificant in all other samples.⁹¹

Industry group was not a significant explanatory factor in the model when it was estimated in the overall sample and in the sample limited to claims that included a neck pain diagnosis, but sectors were significant in the model when it was estimated in the sample that was limited to claims with a CTS diagnoses. In particular, claims from Building Construction, Dealers and Wholesalers, and Government were significantly less likely to be denied in these model estimates. In all of the estimates, the specific year fixed effects were significant, and showed increasing values, which suggests that denials were increasing over time, holding the influence of all of the other variables constant.

⁹¹ In estimating the models, the issue of potential collinearity of the three variables, “Multiple claims,” “Pre-existing,” and “Prior impairment” was a concern. The “Multiple claims” dummy variable indicates that the claimant has had a compensated injury claim in addition to the OD claims that define the dependent variable. The “Pre-existing” indicator is set if, on the ROA, the physician has indicated that the claimant had a pre-existing (related or unrelated) condition. The “Prior impairment” indicator is set if the physician indicates that the claimant had received prior treatment for the condition. While our preferred model includes all three variables because they all have slightly different information, we re-estimated the models three additional times with each of the variables entered individually. When we deleted “Pre-existing” and “Prior impairment,” none of the other coefficients changed appreciably in any of the models. For the models estimated on observations with particular diagnoses (the rightmost three columns in Table 7.19), the variables “Pre-existing” and “Prior impairment” remained insignificant when they were in the model by themselves. For the model estimated on observations with all diagnoses, the variable “Pre-existing” lost significance when it was entered by itself; and the variable “Prior_impairment” gained significance when it was entered by itself. All of these estimates are available upon request.

8 CONCLUSIONS

This report began with a quote from L&I's request for proposals (RFP) suggesting that there is a wide gamut of opinion about the adjudication of occupational disease claims in Washington's workers' compensation system. The gist of that quote is that some stakeholders feel that the system is too lenient and is allowing coverage for conditions that are not work-related; others are comfortable with the system and fear that any tightening of it will unfairly deny workers needed insurance coverage. To address these sorts of concerns, the legislature mandated a thorough study of the handling of occupational disease claims. An analogy might be that we have been tasked with performing a physical examination of the compensation system for occupational disease in Washington. Is it sick? Has its health deteriorated? How is its health relative to other systems?

Over the past six months, we have investigated the system in several different ways and using several different analytical tools. We have traced the historical development of the law and court rulings to try to gain an understanding of the legislative intent, which presumably reflects the will of stakeholders. Not surprisingly, that history is not linear; however it has effectively given substance to the wording ". . . arises naturally and proximately out of employment." While some may be uncomfortable with the ambiguity and inexactitude of that wording, there has been no major reinterpretation of it in the past 25 years.

We have described the adjudication of occupational disease claims by the State Fund in Washington. In the course of doing so, we have interviewed several dozen knowledgeable individuals spanning virtually every stakeholder perspective. While people with different perspectives brought forward various issues of concern during our face-to-face interviews in Washington, we generally did not find much evidence to justify those concerns. We reviewed the statutory definitions for occupational disease compensation in the other states with comparisons to Washington law and practice. This review uncovered no general consensus about the definition of occupational disease nor about the standards of proof to use in determining whether a diagnosed condition was employment-related.

We analyzed the frequency and severity of occupational disease claims in Washington from 1997 through 2009 for both self-insured and state fund compensable claims and tried to correlate trends with changes occurring in the workforce, with trends in diagnoses, and with demographic factors. We looked for evidence that pre-existing conditions and diseases of aging were increasingly being compensated under the occupational disease provisions.

In short, we did not find that the patient (system) suffers from any serious acute condition. It is not sick. We suspect that those who are critical of the leniency of the system will find things in our report to substantiate their point of view, and that those who are comfortable with the system will find evidence for their perspective. In this chapter, we offer our conclusions regarding the compensation of occupational diseases in Washington.

8.1 Performance Assessment

First, because of the challenges in making accurate comparisons among state systems, it is very difficult to make a global assessment of the workers' compensation system in Washington. The best way to do this is with an explicitly comparative framework such as that provided by the CompScope™ series published by the Workers Compensation Research Institute.⁹² For these comparative studies, WCRI controls for industry mix, waiting period, and other characteristics that make simple comparisons challenging or misleading. Lacking such an accurate yardstick, we used available data to provide a partial picture of the performance of the Washington system.

We found that the U. S. Bureau of Labor Statistics Annual Survey of Occupational Injuries and Illnesses, the primary source for occupational injuries and illnesses in the United States, indicates that Washington has a higher incidence of injuries and illnesses than the majority of states. Data from the National Academy of Social Insurance show that Washington benefits are 70 to 88 percent above the national average. However, this does not result in correspondingly higher employer costs for workers' compensation because of worker participation in the funding of the system. Approximately one-fourth of system costs are paid by workers through a payroll tax. Despite the relatively high volume of injuries and illnesses and the short waiting period (3 days) for time-loss benefits in Washington, we estimate that employer costs are near the U.S. average. However, there is an indication that costs in Washington are rising more rapidly than the average state. This is an important issue because of the potential economic development implications of high workers' compensation costs.⁹³

Comparing Washington to its neighbors Oregon and British Columbia indicates that the occupational disease experience in Washington is not extraordinary. While there are major differences in measures that make precise comparisons impossible, it seems that all three jurisdictions are in the same ball park when it comes to the incidence of time-loss occupational disease claims. Washington did not show the same downward trend in the occupational disease proportion of all compensated claims that the other two jurisdictions did. However, this is a difference of a few hundred "extra" occupational disease claims, which does not seem like a major concern and could easily be accounted for by local conditions.

Further, there have been no significant policy changes regarding occupational disease in the past few years. While there are continual refinements, the basic law of compensation for occupational diseases has been pretty settled since the Dennis decision in 1987. And while the "naturally and proximately" definition of occupational disease in Washington may be less clearly defined than in other jurisdictions, appellate decisions over the last 25 years have clarified most issues. The last major change in adjudication of occupational disease claims was separating the

⁹² www.wcri.net.

⁹³ A recent release of the 2012 ranking of premium rates may be a reason for concern as Washington was listed as having premiums—when weighted by Oregon employment—that are 12 percent above the national average causing the state to move to the 13th most expensive jurisdiction.). See http://www.cbs.state.or.us/external/dir/wc_cost/files/report_summary.pdf accessed on October 25, 2012.

entitlement and liability decisions in 2003. And the reforms of 2011 are not expected to have any disproportionate effect on occupational disease claims.

8.2 Trends

While compensable traumatic injuries in Washington have shown a secular decline with sensitivity to the business cycle over the last 12 years, occupational disease claims have declined more slowly. As the employment base continued to shift from extractive and manufacturing industries to services, the number of occupational disease claims has declined at about half the rate of decline for traumatic injury claims. So the relative incidence of occupational disease claims has increased in Washington. The result is that the proportion of all compensable workers' compensation claims that are occupational disease has grown from 4.5 percent to 6.3 percent in Washington, while the proportion has declined in 27 of 36 other states that we reviewed.

As shown in chapter 7, the benefits that are paid to claimants in State Fund OD claims grew rapidly in the late 1990s, but stabilized at under \$50,000 per claim since 2000. The average level of payments for OD claims has declined for self-insured employers in Washington and currently stands at about \$12,000. Both trends reflect changes in the underlying duration of time-loss payments. Time-loss durations are three to five times as long for State Fund claims compared to self-insured claims in Washington. This likely reflects more aggressive efforts to close claims, including the option of side-bar settlements by self-insured employers. These do not enter into the statistical database and their importance in the system is unclear.

We also show that a substantially larger proportion of occupational disease claims receive permanent total disability pensions. Roughly 4 to 6 percent of OD claims ultimately receive pensions compared to 2 to 3 percent of injury claims. It is not clear whether declines in pension awards since 2001 reflect a lower incidence of pensions or just the time needed for such claims to mature in the system.

We found that occupational disease claims came disproportionately from just a few industry groups with Miscellaneous Services topping the list, followed by Miscellaneous Professional & Clerical, Government, Trades, and Metal and Machinery Manufacturing. These five sectors accounted for over one-half the compensable OD claims in 2009.

8.3 Self-insured Sector

The contrast between self-insured employers and State Fund insured employers seems to be growing larger. Although there are questions about the accuracy of the data for self-insured employers, our findings indicate that State Fund employers have about 4 times the incidence of occupational disease claims and more than 2 times the average cost of such a claim when compared to self-insured employers. However, the 1997 – 2009 trend for occupational disease claims for State Fund employers was downward (2,398 to 2,215 claims) while it was upward for the self insured (121 to 247 claims). This difference would seem to justify further investigation.

However, the quality of data for self-insured employers is an area of concern. For example, the number of OD claims reported by self-insured employers soared after 2008. It is not possible to determine whether this was a real change, perhaps motivated by the Great Recession; or whether it was a statistical artifact of the change to a new claims reporting system for self-insured employers (SIEDRS) that was implemented during 2009.

8.4 Pre-existing Conditions

Our analysis of the influence of pre-existing conditions on occupational disease incidence concentrated on two variables, both reported by the treating physicians. They recorded whether the injured worker had any prior treatment for the condition; or whether the worker was known to have a pre-existing impairment, either related or unrelated to the current condition. Among compensable claims, about 10 percent of OD claims have pre-existing impairments, and about 20 percent showed prior treatment for the claimed condition. Obviously these situations did not constitute a bar to the claim, and there was only a very small upward trend in both measures over the 1997 to 2009 period. We do not believe that pre-existing conditions are becoming more common among occupational disease claims in Washington based on this evidence.

8.5 Diseases of Aging

The analyses of trends presented in Chapter 7 show that the incidence of OD claims for older workers has grown faster than the growth in the workforce. This is especially true for workers in the 45 to 59 age class. It is not true for workers over 60, who accounted for 10.2 percent of the workforce in 2009, but who only had 8.6 percent of the compensable OD claims, excluding hearing loss. With the aging of the Washington workforce, diseases more common in older individuals such as cancer, coronary artery disease, diabetes, and osteoarthritis will be more common among workers. In addition, musculoskeletal conditions are the most common compensable diseases and, whether directly related to osteoarthritis or repetitive trauma, they would be expected to be more common in an older workforce.

We cannot explain the increased incidence of compensable OD claims among older workers, although we feel that we can rule out some factors. Our review of the accepted diagnoses for compensated occupational disease claims found that very few individuals received compensation for chronic conditions such as cancer, coronary artery disease, or diabetes historically and that did not change appreciably over our analysis time period. From 1997 to 2009, the percentage of accepted OD claims with accepted diagnoses of two common musculoskeletal conditions that would be classified as occupational disease (carpal tunnel syndrome and synovitis and teno-synovitis) declined, substantially in the case of carpal tunnel syndrome. For enthesopathy of the elbow region, rotator cuff syndrome of shoulder and allied diagnoses, and neck pain there was a slight increase. Only osteoarthritis showed a sizable increase over the period, increasing from 1.3 percent of compensable OD claims to 3.2 percent. Cancer, diabetes, and coronary conditions did not show an increase in their proportions among compensable occupational disease claims.

Our analyses did not point to growth in any particular diagnoses that would explain the increase in the incidence of compensable claims among workers in their 40s and 50s. This

includes the conditions that might be called “diseases of natural aging.” The second factor that we can rule out is increased acceptance of diagnoses of “diseases of natural aging” by the claims adjudicators. Table 7.15 shows that from 1997 to 2009, among compensated OD claims, the percentage accepted for four of six common musculoskeletal conditions that would likely be classified as occupational disease (synovitis and teno-synovitis, rotator cuff syndrome of shoulder and allied diagnoses, pain in joint, and neck pain) decreased. The percentage went up for two common musculoskeletal conditions: carpal tunnel syndrome and enthesopathy of the elbow region. All changes in the acceptance rates with the exception of neck pain were small; the decrease in for the first four conditions ranged from 0.4 to 6.4 percentage points, and the range of increase for the last two conditions was 0.6 to 0.8 percentage points.

In summary, we did not find a broad trend that diseases caused by natural aging or conditions outside the workplace were increasingly being accepted as occupational disease claims in Washington.

8.6 Statutory Provisions

Many critics of the Washington system for compensating occupational diseases cited the interpretation that “a” probable cause was sufficient for acceptance, rather than “the” probable cause, or even “the major contributing cause” as in Oregon. It was maintained by these critics that it is increasingly popular for claimants to throw as many conditions as possible into a claim with the hope that something will be accepted. While we cannot confirm this allegation, it is a fact that more and more OD claims indicate multiple diagnoses. In 2009, only 14 percent of accepted OD claims identified just one condition, while 27 percent cited 5 or more conditions. This is nearly double the percentage in 1997.

Another complaint was the notice requirement before the statute of limitations runs for occupational disease claims in Washington. The provision requiring the treating physician to provide written notice to both the injured worker and to L&I that a worker’s condition is work-related was cited as unreasonable by some. We believe this requirement is unique among the states and may require reexamination. It was alleged that workers with injuries older than one year (the statute of limitations for injury claims) have even been advised to try to file an occupational disease claim instead, since that will not be denied on the basis of the strict statute of limitations. Of course it will be denied on other grounds if the claim is not deemed worthy.

Our review of occupational disease statutes in other states in chapter 5 revealed a great variety of provisions. It also bears repeating that these provisions have evolved over time as they have in Washington (see the description of the evolution of Washington workers’ compensation law on occupational disease in chapter 3), depending upon political winds, court decisions, and economic conditions. Washington is not an obvious outlier in these provisions. But the variety of provisions found in these statutes may constitute something like a shopping list for policymakers in search of a particular change or outcome. In addition, chapter 6 provides a picture of the recent direction of the workers’ compensation policy evolution in other states. The necessary caution in following these trends is that workers’ compensation systems are like living creatures; the various parts are highly interdependent and it is not always possible to graft a new limb onto such a creature and predict the outcome accurately.

8.7 Final Thoughts

We did not find glaring issues of concern with the compensation of occupational diseases in the State of Washington in our cross-state review of statutes, our review of recent policy changes, our documentation of OD claim adjudication, or our statistical analyses of trends between 1997 and 2009. While the definition of occupational disease is somewhat vague and imprecise, policy and appellate decisions have clarified most issues over the years. There have been no obvious policy or practice changes that have significantly altered the adjudication of occupational disease claims in recent years. Some stakeholders called for more investigation before accepting an occupational disease claim. Others called for a special group of adjudicators dedicated to occupational disease claims similar to the way that hearing loss, asbestos, and chemical exposure claims are handled. This is a cost-benefit calculation that must be made by the managers of the system. They must weigh the staff cost and time delays of additional investigation against the probability of compensating some claims that perhaps should not have been accepted or of rejecting a claim that, with investigation, would ultimately be found to be compensable.

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APPENDIX A

Interview Subjects for Occupational Disease Study

Appendix A

Interview Subjects for Occupational Disease Study

L&I Management

Darrell Bessey, Supervisor, Chemically Related Illnesses
Beth Dupre, Assistant Director, Insurance Services
Gary Franklin, Medical Director
AnnaLisa Gellermann, Program Manager, Integrated Claims Services
Kirsta Glen, Director, Research and Data Services
Vickie Kennedy, Assistant Director, Gov & Leg Affairs
Jeff Miller, Mgmt Analyst 5
Wayne Shatto, Analyst, Research and Data Services
Debra Tollefson, Legal Services Manager
Bill Vasek, Senior Actuary
Cheri Ward, Claims Program Manager

Stakeholders

Lori Daigle, Self Insured Employer
Rebecca Forrester, Group Health, WCAC
Lori Hanson, Boeing
Tammie Hetrick, WA Retail Association
Rebecca Johnson, WA State Labor Council, Gov. Affairs Director
Dave Kaplan, Executive Director, WA Self Insurers Assoc.
Jackie Pierce, Boeing
Craig Soucy, Washington State Council of Fire Fighters
Kris Tefft, Association of Washington Businesses

Adjudicators

Erik Baumle, WCA2
Jeri Behrends, long time adjudicator
Ted Bicknell, WCA3
Wendy Devries, Pension Adjudicator
James Jackson, WCA2
La Nae Lien, WCA5
Barb Mickelson, Pension Adjudicator
Shirley Morris, long time adjudicator
Maureen Rasa, long time adjudicator
Sharon Skar, long time adjudicator
Sandy Torstenson, WCA5
Angel Travis, long time adjudicator
Sara Wetsch-Betts, WCA2

Adjudicator Development & Support

Sue Callaghan, Claims Training Supervisor
Deb Christopherson, WCA, Claims Training
Dawn Goss, WCA5, Quality Assurance
Sandi Haerling, Claims Training Manager
Jeanine Keeseey, WCA5, Quality Assurance
Charlene Lysne, Claims Tutoring
LaVonda McCandless, Supervisor, Occupational Nurse Consultant
Jill Turner, Quality Assurance Supervisor
Bonnie Woodbury, WCA4, Coaching Unit

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Jackie Findley, Assistant Attorney General
Beverly Goetz, Assistant Attorney General
Leslie Johnson, Assistant Attorney General
Steve Vinyard, Assistant Attorney General
John Wasberg, Retired AAG

Attorneys

Kathy Comfort, Trail Attorney (labor)
David Lauman, Trial Attorney (labor)
Katherine Mason, Trial Attorney (labor)
Terry Peterson, Trial Attorney (defense)
Steve Reinisch, Trial Attorney (defense)
Sky Wallace, Attorney (defense)

Self-Insurance

Scott Corvin, WCA5, Self Insurance
Natalee Fillinger, Program Manager, Self Insurance
Candice Myrum, Operations Manager, Self Insurance
Lisa Vivian, 3rd Party Administrator

SHARP

Darrin Adams, ITS5
Dave Bonauto, Physician 3
Michael Foley, Epidemiologist 3
Barbara Silverstein, Research Director

Physicians

Dr. Dianna Chamblin
Dr. Kirk Harmon, COHE
Dr. Karen Nilson, Valley Medical, Renton COHE
Jon Reynolds, Haborview COHE
Dr. June Spector, Haborview COHE
Hal Stockbridge, L&I Physician 3
Dr. Stumpp, IME
Dr. Victor Van Hee, Haborview COHE
Dr. Robert Waring, COHE

BIIA

Jack Eng, BIIA Member
Frank Fennerty, BIIA Member
Dave Threedy, BIIA Member