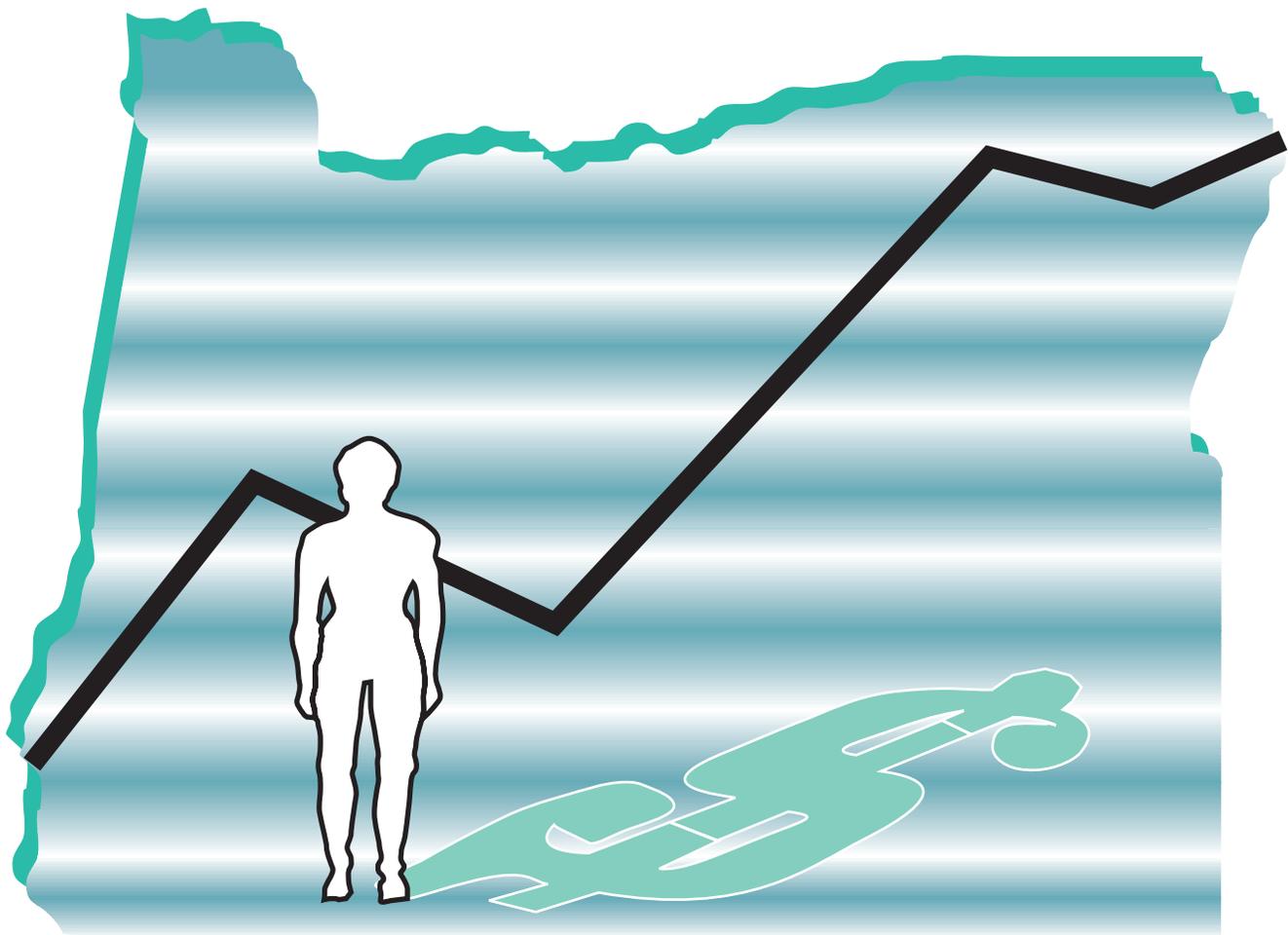


Permanent Partial Disability in the Oregon Workers' Compensation System 1986 - 1997

Research & Analysis Section
Oregon Department of Consumer
& Business Services



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Permanent Partial Disability in the Oregon Workers' Compensation System, 1986-1997

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Introduction

The Department of Consumer and Business Services (the department) was given full responsibility by the Oregon Safe Employment Act of 1973 "... to assure as far as possible safe and healthful working conditions for every working man and woman in Oregon..." in accordance with the Federal Occupational Safety and Health Act of 1970. Toward this end, the department has evolved to include most of the administrative and adjudicative functions of the workers' compensation system. The department provides safety and health enforcement and consultative services, regulates the workers' compensation system, sets workers' compensation insurance rates, resolves disputes administratively, and provides a forum for quasi-judicial dispute resolution when litigation cannot be avoided. The department is distinct from workers' compensation insurers, which collect premiums from employers, determine the compensability of claims, and process and manage those claims, including the payment of benefits to injured workers.

Since 1976, the department, in cooperation with the U.S. Bureau of Labor Statistics, has collected data directly from workers' compensation cases. Relatively complete data on permanent partial disability (PPD) awards is available in a unified database from around 1986 on. Other departmental publications have covered PPD awards as one type of outcome at a specific level of determination, such as Evaluation or Hearings. However, this publication is the first presenting a comprehensive analysis of PPD claims and awards, and it covers PPD from 1986 through 1997.

Data for this report come primarily from the employer's First Report of Injury (DCBS Form 801); Determination

Orders issued by the department; Notices of Closure from insurers; Orders on Reconsideration issued by the department; orders and stipulations from the Workers' Compensation Board; and court orders. The department does not normally collect insurers' data on reserves for individual PPD claims.

One function of the department's Information Management Division (IMD) is to publish data on the workers' compensation system and the other activities that the department oversees. In addition to this publication, IMD has published other reports using claims data, including reports on claims characteristics, fatalities, permanent total disabilities, carpal tunnel syndrome, mental stress, workplace violence, workers aged 17 and under, noncomplying employers, and summaries of the claims from Oregon's major industries.

IMD has also published reports covering the workers' compensation claim determination, dispute resolution, and appeals processes, medical costs, medical fee schedules, managed care, return-to-work programs, insurance premiums, fraud and abuse investigations, and OR-OSHA's consultative and enforcement activities. These reports, plus the department's overall statistical summary, *Monitoring the Key Components of Legislative Reform*, are available from IMD upon request. Many of these publications are available at the IMD Web site: <http://www.cbs.state.or.us/imd/>

Further explanation of the scope of this report and the methodology used may be found in Appendix A. A summary of law changes affecting PPD is provided in Appendix B. More detailed information is available upon request.

Highlights

Since 1986, there have been three broad rewrites of the Workers' Compensation Law, each of which affected claim closure and PPD determination. HB 2900 of 1987, SB 1197 from the May 1990 special session, and SB 369 of 1995 all significantly amended rating considerations and benefit levels, but also appeal processes and return-to-work incentives. PPD benefits were also increased by 1991 and 1997 legislation. The first two bills played a major part in renewing emphasis on workplace safety and health, as well. A summary of law changes may be found in Appendix B.

Since 1985, the legislature has raised maximum scheduled benefits by 354 percent. Since 1981, it has raised maximum unscheduled benefits by 332 percent; benefits for less severe injuries (up to 20 percent disability) have been increased by 38 percent, however.

As of July 1998, over 8,000 permanently disabled workers have used Preferred Worker benefits since 1990 to return to work.

Much of the recent drop in disabling claims apparently is due to the expansion of the Employer-at-Injury Program to nondisabling claims. It is also possible that early return to work forestalled an award for permanent disability for many of those injuries. The Employer-at-Injury Program probably results in fewer unscheduled PPD awards modified (increased) by the factors of age, education, and adaptability, as well.

Over the last 12 years, claims with PPD (grants) as a percentage of claims closed has shown little variation from an average of around 30 percent. The recent trend had been one of modest growth, to 32.2 percent of claims closed in 1996, but 1997 saw a drop to 29.8 percent. However, there has been a sustained, sharp decline in a broader measure of PPD incidence, grants per 100,000 Oregon employees. The 1997 rate of 520 PPD claims per 100,000 workers is less than half that of the recent peak year of 1987. About 8 percentage points of the 55.4 percent drop in the PPD rate is explained by CDAs.

Grants of PPD showed an upward trend from 1986, peaking at 13,800 in 1989, then declined substantially to 9,980 in 1991, following passage of SB 1197, and again after SB 369, to 8,055 currently.

The percentage of new PPD claims coming on appeal has declined substantially. The bulk of the reduction

occurred in the years immediately following the first major law change, HB 2900, reaching a low point in 1991 and staying around a 10 percent rate thereafter. The drop has been sustained only for grants including unscheduled awards. Grants for scheduled awards at appeal have been at historically high levels in recent years.

For 1996 awards of unscheduled PPD, around 50 percent were modified by the factors of age, education, and adaptability. The percent of degrees awarded due to modification was 32 percent.

The number of PPD grants due to sprains and strains declined by more than 2,300 in 1991, accounting for much of the drop of 3,750 total PPD grants in that first full year after SB 1197. Later on, the number of PPD grants due to sprains and strains decreased by 749 in 1996 and by 1,017 (to 2,854) in 1997. Similarly, total PPD grants fell by 431 in 1996 and 1,005 the next year.

Part of body injured shows a dramatic decline in the prominence of back injuries resulting in claims with a PPD award, from a peak of 33 percent in 1987 to the current 17 percent.

Overexertion accounted for 1,939 PPD claims in 1997 compared to 5,108 in 1989. The largest drop in PPD for overexertion claims, over 1,500, came in 1991, and a further drop of 1,000 PPD claims occurred in the two years following passage of SB 369.

In 1997, about 23 percent of claim closures for sprains and strains had PPD, and 21 percent for back injuries, both relatively low rates.

PPD rates per 100,000 workers for agriculture, forestry, and fishing; construction; manufacturing; wholesale and retail trade; finance, insurance, and real estate; and services have been cut by more than half.

The average span from injury to first award of PPD is currently 1.2 years, down from 1.5 years for 1986 through 1988 grants.

About 16 to 18 percent of PPD claims ultimately settle by CDA.

The insurer with the most PPD claims has usually been SAIF, the state fund, which held a 33 percent share of

1997 PPD claims. For 1997 closures, both SAIF and Liberty had a PPD rate (propensity) of 33 percent, compared to 30 percent for self insurers and 24 percent for other private insurers. Other private insurers have shown a downward trend in their aggregate PPD rate, from 31 percent in 1989, while the other insurer types have experienced more stable PPD rates.

Average PPD benefits per PPD claim were \$6,964 in 1997, compared to \$5,852 for 1987 PPD claims.

Claims with scheduled PPD reached a height of 7,345 in 1990, declined sharply to 5,801 in 1991, and then bumped around until dropping about 10 percent to 5,392 in 1997. Average degrees per scheduled claim has plunged from 36.1 in 1987 to 17.5 currently. Almost as much of this reduction occurred between 1987 and 1990, due to the effects of HB 2900, as after 1990, under SB 1197. The average scheduled award of \$6,702 for 1997 claims is substantially higher than the average \$3,939 awarded for 1987 scheduled claims.

Claims with unscheduled PPD reached a height of 8,984 in 1990, plummeted to 5,684 in 1991, and then declined at a relatively steady pace until falling about 15 percent to 3,654 in 1997. Average degrees per unscheduled claim have dropped from 69.4 degrees in 1987 to 50.7 currently. Most of this reduction occurred after 1990, probably due primarily to the effects of SB 1197 and SB 369. The average unscheduled dollar award for unscheduled PPD claims peaked at \$6,783 in 1987. The current figure of \$6,517 is still below that high point, despite several benefit increases.

Over 5 percent of unscheduled PPD claims last awarded benefits in 1989 received 160 or more unscheduled degrees (equal to or more than 50 percent unscheduled disability), the current top tier. By 1997, only 1.1 percent of unscheduled PPD claims were top-tier claims.

Beginning in 1991, male claimants averaged noticeably higher PPD awards than females. In 1997, the averages were \$7,138 for males and \$6,539 dollars for females.

Average PPD awards by age group shows the expected distribution of generally higher awards for older workers.

For 1997 PPD claims, those that settled via a CDA averaged \$10,207 in PPD benefits—exclusive of the CDA amount—compared to \$6,559 for non-CDA claims.

Since 1994, SAIF has shown average PPD costs very close to the overall average, at \$6,903 currently. Claims against non-complying employers, though never more than 1 percent in frequency, have been expensive, at \$8,279 currently. The Liberty Group averaged \$7,523 in PPD benefits in 1997, compared to \$7,082 for other private insurers and \$6,254 for self-insured employers.

Fewer claims and reduced degree awards have led to lower payouts of PPD benefits, from a peak of \$77 million in 1989 to \$56.4 million in 1997.

In 1987, the first level of determination, departmental Determination Orders, accounted for 62 percent of PPD dollars. By 1989, with the rating standards well in place, the first level had jumped to 77 percent. Currently, the first level, including insurers' Notices of Closure since 1988, accounts for 89 percent of PPD dollars. By 1997, NOCs awarded 54 percent of total PPD dollars.

Awards at Hearings reached \$28.9 million in 1987 but fell thereafter, to \$1.1 million currently. Most of the reduction in PPD dollars at Hearings has come from unscheduled awards.

Appeals increasing PPD crested at 8,238 in 1987, compared to 2,151 currently. Of Hearings decisions considering PPD in 1990, about 91 percent increased benefits. Increase rates at Hearings have steadily declined since, the current rate being 49 percent, compared to 46 percent at reconsideration.

There has been a strong upward trend in carrier appeals since the SB 1197 amendments that stay payment of PPD upon insurer appeal and mandate administrative reconsideration, with 14 percent of disputed PPD cases coming on insurer appeal, currently.

Total scheduled benefits awarded has shown an upward trend to \$34.4 million currently. Unscheduled awards peaked at \$56.5 million in 1989, fell by over \$20 million to \$28.6 million in 1991, and now stand at \$21.9 million in 1997, following a 13 percent drop from the previous year.

Since the peak year of 1987, total degrees awarded for scheduled injuries have been halved, from 180,563 to 87,865 in 1997. Total degrees for unscheduled injuries have been reduced by more than two-thirds, from 566,831 in 1989 to 166,745 currently. In 1987, 42 percent of

unscheduled degrees were awarded on appeal, while the current figure is around 10 percent. In 1997, about 81 percent of unscheduled degrees were paid at the low-tier value, and not quite 1 percent at the high tier.

Total claimant attorney fees payable for increased PPD awards peaked at \$7 million in 1987, falling to \$1.2 million in 1997, or just over 2 percent of total PPD dollars awarded, compared to more than 9 percent of total awards ten years earlier.

In recent years, more than \$14 million dollars in annual CDA payouts may be thought of as compensation for permanent disability that is partial in nature. For 1997, all indemnity for PPD awards and estimated CDA proceeds upon release of PPD benefits came to \$70.1

million, of which \$3.1 million was payable as claimant attorney fees.

For injuries occurring in 1994, the latest year for which data on development of PPD claims is probably nearly final, 84 percent of both unscheduled and scheduled benefits were awarded within the first two years of injury. By contrast, for 1986 injuries, 68 percent of scheduled and 62 percent of unscheduled benefits were awarded within two years of injury.

Aggravation claims are a significant source of PPD benefits: for 1993 injuries, about 14 percent of scheduled benefits and 16 percent of unscheduled. The percentage of PPD claims with additional awards on aggravation appears to be increasing.

Permanent partial disability (PPD) benefits in Oregon

Oregon Revised Statute (ORS 656.214) defines permanent partial disability as permanent, complete or partial loss of use of bodily extremities, including vision and hearing, “or any other injury known in surgery to be permanent partial disability.” When the loss is to a body part named in the statute, the disability is “scheduled,” and the criteria for rating the disability, or determining the monetary award, is impairment, which is the permanent loss of use or function of the body part. Injuries not listed, such as to the back, are “unscheduled,” rated on the permanent loss of earning capacity from the compensable condition. Earning capacity is further defined at ORS 656.726(3)(f) as permanent impairment due to the industrial injury when the worker returns (or in some cases, could have returned) to regular work at the job held at the time of injury. Otherwise, unscheduled disability is rated on impairment as modified by the factors of age, education, and adaptability to perform a given job.¹

The Workers Compensation Research Institute (WCRI), a nationally recognized organization, provides a succinct overview of PPD in *Reducing Litigation: Using Disability Guidelines and State Evaluators in Oregon* (WC-91-3, October 1991, pp 11-12). The lengthy quote below highlights several issues taken up by the Oregon legislature since 1987:

“Most workers who are injured at work recover fully, with no long-term physical or economic effects. But some workers never completely recover: They remain permanently impaired. The American Medical Association defines impairment as “the loss of, loss of use of, or derangement of any body part, system, or function.” The degree of impairment that results from an injury is determined by many factors, including the nature of the injury itself, the medical treatment and rehabilitative services received, and the personal characteristics of the worker. One possible consequence of impairment is a reduction in earning capacity, the ability to earn wages after maximum recovery from the

effects of the workplace injury. The resulting loss of earning capacity, if any, is affected by the degree of impairment, as well as by the worker’s education and training, the employer’s personnel policies, labor-market conditions, vocational rehabilitation received, and other social, legal, and economic factors. . . . Expert assessment is a critical step in determining PPD payments under workers’ compensation. To determine the extent of permanent impairment, one or more experts (usually physicians) examine the worker. . . . Impairment ratings for a given injury can vary widely because there is no generally accepted method for transforming symptoms into numerical ratings.”

In the Oregon workers’ compensation system, physicians report findings on impairment, using methods described in the *AMA Guides to the Evaluation of Permanent Impairment*, while the department or insurer rates disability, at claim closure.² Again, PPD awards for scheduled body parts consider only impairment, though even a severe injury like the loss of a leg may have little long-term effect on the earnings of one worker but will seriously disrupt the job prospects of another. Also, a scheduled PPD award for the same injury to two different workers will be the same regardless of the wages earned, although the monthly payment of benefits will vary according to the wage. Awards for unscheduled injuries may consider other factors relating to loss of earning capacity, as noted above.

Determining PPD awards. In Oregon, a PPD award is determined as part of claim closure, generally after recovery from the disabling workplace injury and the payment of temporary disability (time loss) benefits.³ Since 1986, there have been three broad rewrites of the Workers’ Compensation Law, each of which affected claim closure and PPD determination. HB 2900 of 1987, SB 1197 from the May 1990 special session, and SB 369 of 1995 all significantly amended rating considerations and benefit levels, but also appeal processes and return-to-work incentives. PPD benefits

¹Other non-impairment factors were considered prior to 1988, and on appeal, until 1990. The statutory distinction in the rating of unscheduled disability according to return-to-work status, codified in 1995, was slated to sunset on December 31, 2000, but the 1999 legislature approved retention of the distinction.

²At press time, the department, with the concurrence of the Management Labor Advisory Committee, had submitted a “legislative concept” to abolish the function of claim closure by the department, for consideration by the 1999 Legislature.

³ORS 656.268(1) provides for three exceptions to the presumption that the worker’s injury must be medically stationary before claim closure and disability determination: the worker’s accepted injury is no longer the major contributing cause to the worker’s medical condition; the worker fails to cooperate with medical treatment for a period of 30 days; or the worker is enrolled and actively engaged in training under the Workers’ Compensation Law.

were increased by 1991 legislation, as well. These amendments have had far-reaching effects on PPD (see Appendix B for a detailed list of law changes); and the first two bills played a major part in renewing emphasis on workplace safety and health, including prevention efforts that probably contributed to much of the decline in the severe injuries that result in PPD awards. Several bills passed in 1997 further amended the PPD statute, including another benefit increase, but their effects cannot be gauged from 1997 data.

Oregon law provides that a disabling claim includes an injury or illness where there is a reasonable expectation of a resulting permanent disability (such as a hearing loss), as well as the typical case of a claim with more than three days lost from work. Another piece of legislation from 1987, HB 2271, put the burden upon the worker to prove compensability and the nature and extent of any disability. This provision very likely was a major impetus for the increase in claim denials beginning in the late 1980s, particularly by SAIF, the state fund.⁴

For most disabling claims that are accepted as compensable, insurers pay temporary disability benefits during the recovery period. The injured worker chooses an attending physician to provide treatment, and, since HB 2900, the worker may change physicians twice; before that, the allowance was four changes. Since 1990, worker choice of the kind of provider who may be an attending physician is restricted by law, and worker choice may also be limited if the employer is covered by a managed care organization, which provides a panel of medical service providers outside of which the worker may not seek care. There have been several other law amendments relating to medical care, but a comprehensive analysis of the impact of those changes upon treatment of severe injuries is beyond the scope of this report.

At some point in the course of treatment and recovery, the attending physician determines that the disabling medical condition has become medically stationary: maximum medical improvement, through time or treatment, is reached. The physician then conducts a closing examination to report findings on the presence and extent of a permanent disability resulting from accepted conditions. The department or the insurer may also request such an examination. Because only an attending physician may conduct the closing

examination, the amended definition of attending physician under SB 1197 also limited who could conduct the closing examination—excluding chiropractors, in particular. However, a “consulting physician” may conduct all or part of the examination upon referral by the attending physician. In addition, an insurer may require that an injured worker participate in up to three insurer medical examinations (IMEs), with a physician of its choice, during the course of the claim opening. Occasionally, the purpose of the IME is to establish a second⁵ opinion on the attending physician’s closing report.

The department or the insurer provides the actual rating of disability and calculation of the PPD award, at claim closure. Beginning in 1988, insurers were given authority to determine PPD awards, using departmental standards, when the worker had returned to regular work, and in 1990, when the worker was released to work.

The rating of disability is complex and has been subject to amendments of the statutory outline, as well as frequent changes in the details provided by administrative rules, *Disability Rating Standards* (OAR 436-035), especially. Under the May 1990 law, impairment—which is the basis of scheduled disability and a portion of unscheduled—is established by “a preponderance of medical evidence based on objective findings.” Both SB 1197 and SB 369 codified tests of disability as well as compensability against the doctrines of (1) “medical evidence supported by objective findings” and (2) the workplace injury as the “major contributing cause” where there is a pre-existing medical condition. “Major contributing cause” means that the rater must ascertain which medical conditions resulting from the accepted claim remain compensable. Under SB 369, however, the insurer “is not required to accept each and every diagnosis or medical condition with particularity, so long as the acceptance tendered reasonably apprises the claimant and medical providers of the nature of the compensable conditions.” Also under SB 369, “major contributing cause” may lead to a “statutory closure,” prior to the worker being medically stationary. An example is an injured worker who has a pre-existing condition, such as a back problem of some kind, that becomes the major contributing cause for medical treatment. This may lead to claim closure, perhaps with no PPD award, prior to becoming medically stationary.

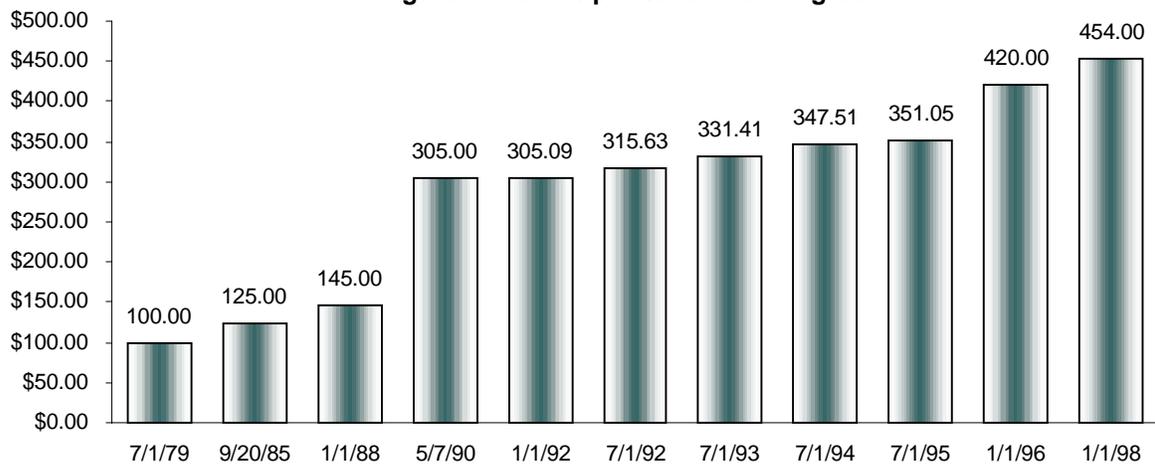
⁴Department of Insurance & Finance, Workers’ Compensation Division, *Examination Report on Claims Denials of SAIF Corporation and Liberty Northwest Insurance Corporation*, February 14, 1992, pp 21-24.

⁵Testimony by insurer representatives at 1998 meetings of the Benefits/Medical Subcommittee of the Management-Labor Advisory Committee asserted that most IMEs deal with issues of compensability, rather than closure. The department has no data on the purpose of IMEs.

Moreover, SB 369 permits “statutory closures” when the worker fails to seek medical treatment for a period of 30 days or fails to attend a closing examination. To further complicate matters, the rater does evaluate “direct medical sequelae” to an accepted condition, such as permanent weakness in the leg and foot when that weakness is clearly established medically to be a result of a low back strain with a herniated disc; and “consequential conditions,” such as gastritis that develops from a reaction to medication prescribed for a low back strain.

With these and other complexities in mind, the rater looks to the attending physician’s report for objective findings on impairment. If such findings are unavailable or incomplete, the rater evaluates other medical evidence and opinions, for a preponderance of evidence. In sum, many a rating of disability may be questioned on some grounds, such as compensability of and findings on impairment, or proper application of the rating standards.

Figure 1. Dollars per scheduled degree



In general, the rater calculates a scheduled award by determining the percentage of disability for the body part and applying that to the maximum degree value set in statute for the part: a 50 percent disability of the arm equals 96 degrees. The resultant degree figure is multiplied by the appropriate dollars-per-degree value, based on the date of injury, to give the dollar award.

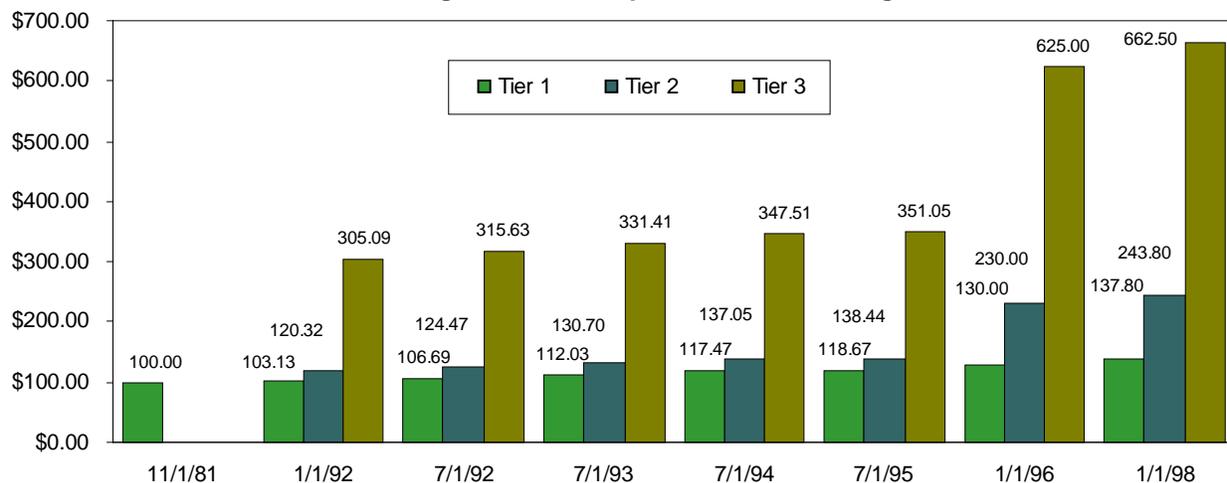
Figure 1 provides a recent history of dollars-per-degree values for scheduled awards. Changes have come frequently in the more recent years. Under SB 1197, benefits were more than doubled. Beginning with 1992 injuries, the scheduled degree value was tied to changes in the Statewide Average Weekly Wage (the SAWW, also used to set most other benefits in the Oregon system).

This automatic adjustment was repealed by SB 369, which did, however, raise scheduled benefits substantially for injuries occurring from January 1996 on, to keep Oregon’s benefits near the middle of national

rankings for benefit generosity. The 1997 legislature also raised benefits, effective January 1998, to maintain national ranking and account for inflation. Since 1985, the legislature has raised maximum scheduled benefits by 354 percent.

An unscheduled award is based on earnings capacity. All three of the major reform bills narrowed the definition of earning capacity, which is now calculated by determining the impairment for the body part, area, or system, as modified by the worker’s age, education, and adaptability. Under SB 369, impairment is the sole factor in the rating when the worker returns, or could have returned, to regular work. The resulting percentage of disability is applied to 320 degrees (equals 100 percent disability) to arrive at the degree value: a 30 percent disability would be 96 degrees. The degree award is then multiplied by dollars-per-degree values set in statute, according to the date of injury, to give the dollar award.

Figure 2. Dollars per unscheduled degree



Note: From 1992 until July 1995, tier one values are applied to the first 96 degrees of disability and tier two to the next 96 degrees. Currently, tier one applies to the first 64 degrees and tier two to the next 96 degrees.

Figure 2 provides a recent history of dollars-per-degree values for unscheduled awards. For more than ten years, the unscheduled degree value remained at \$100 per degree. Changes have come frequently in the more recent years. Beginning with 1992 injuries, unscheduled degree values were tied to changes in the SAWW, and a tier system was established to pay higher dollars per degree for more severe injuries. The automatic adjustment was repealed by SB 369, which also raised unscheduled benefits substantially for injuries occurring from January 1996 on, to maintain Oregon's benefits near the middle of national rankings for maximum benefits; redefined the tiers to provide the higher dollar benefits to more workers; and inadvertently (following a court decision) raised all PPD benefits for new awards made on old claims.⁶ The 1997 legislature also raised benefits, effective January 1998. Since 1981, the legislature has raised maximum unscheduled benefits by 332 percent; benefits for less severe injuries (up to 20 percent disability) have been increased by 38 percent, however.

Appeals of PPD determinations. Processes for disputing PPD awards have also changed dramatically. Litigation of PPD benefits is common, though declining and not as prevalent as in other jurisdictions. From the standpoint of insurers and employers, claims with PPD benefits are costly, while workers look to PPD benefits

for substantial replacement of lost income due to the injury. One focus of the legislature has been to reduce PPD-related frictional costs—the indirect costs, such as attorney and physician fees, of determining entitlement to and delivering benefits.

HB 2900 created the Workers' Compensation Ombudsman as an independent advocate for injured workers and an informal avenue for reducing litigation. A WCRI study summarizes anecdotal evidence to conclude that the program is meeting that objective, despite a lack of confirming data.⁷ However, the increase in contacts with the office may be indicative of the program's success as a mechanism for dispute resolution.

Prior to SB 1197, all disputes over claim closure went directly to the Hearings Division of the Worker's Compensation Board (administratively, an agency within the department). For claims with a medically stationary date from July 1990 on, a worker dissatisfied with a closure must request reconsideration, an administrative review by the department of the entire record of closure, before proceeding to a formal hearing. The reconsideration does not include personal appearances by any of the parties to the dispute. Maximum fees payable to claimants' attorneys for work on a reconsideration have been set lower than for hearings, by statute.

⁶Governor Kitzhaber vetoed an attempt to correct the drafting error that resulted in the unplanned benefit increase. At press time, statutory benefits for both scheduled and unscheduled awards were slated to sunset on December 31, 2000, returning to 1995 levels, but the Management-Labor Advisory Committee has recommended that higher benefit levels be retained.

⁷*Workers' Compensation in Oregon: Administrative Inventory*, WC-95-2, December 1995, pp 28, 145.

The reconsideration also includes departmental appointment of a medical arbiter, to examine the claimant's condition, when the impairment findings used in a closure are disputed. Insurers pay for these examinations. The intent was to minimize the role of forensic experts, sometimes known as "dueling doctors," by having a single, impartial examination.

A worker or insurer dissatisfied with the department's reconsideration order may request a formal hearing conducted by an Administrative Law Judge (formerly, Referee) of the Hearings Division. The sequence of higher appeal levels was not changed by the three major reform bills. Formal appeals may include in-person testimony by the injured worker. Hearing decisions may be appealed to the Worker's Compensation Board (currently, a review by two or three (usually) of the five "members"). A board decision may be reviewed, in turn, by the Oregon Court of Appeals. Final review by the state's Supreme Court is infrequent.

Aside from mandatory administrative reconsideration prior to hearing, these formal levels of appeal have also been affected by legislation designed to promote faster resolution of litigated disputes. For example, time permitted for requesting a hearing and processing cases at both levels of board appeal has been shortened. The reconsideration process itself was also designed to rule on disputed PPD benefits faster than a formal hearing, although many reconsideration orders are appealed. SB 369 further shortened the time permitted for requesting a reconsideration as well as a hearing. Deadlines for requesting appeals also work on limiting additional evidence presented upon appeal by restricting the time for gathering evidence.

Admissibility of evidence at appeals proceedings has also been addressed by the legislature, with the intent of reducing formal litigation and its frictional costs, as well as speeding its process. The 1987 legislature decreed that the department would develop standards for rating PPD, replacing rules that served only as guidelines on appeal, and that those standards would be applied at all levels of appeal. An exception was made when a party to an appeal (usually, the worker) provided "clear and convincing evidence" that the worker's disability was different from the standards' prescription. This exception was repealed in 1990, replaced with a process whereby the department develops temporary rules, for the relatively few cases where the standards do not address the worker's disability. Both SB 1197 and SB 369 placed limits on evidence considered, at hearings and beyond,

to the record developed for the department's Order on Reconsideration, as of the date of that order.

Two other provisions of the 1987 law change affected scope of authority in appeals processes: the Court of Appeals review was confined to the law, eliminating facts as an issue; and the board's "own motion" authority to determine PPD for claims aged at least five years beyond the first closure (post-"aggravation") was eliminated. The effects of these changes, too, could be said to have speeded the process of determining PPD.

Another facet of the 1990 legislation was to stay payment of PPD benefits upon appeal to hearings by an insurer. Although this has increased litigation—by insurers—its intent was to make appeals profitable for insurers as well as workers, to balance the incentives for litigation. The stay stops payment of benefits that an insurer might not otherwise recover should the insurer eventually prevail on appeal.

Return to work and Claim Disposition Agreements. As noted above, return-to-work status currently governs whether a worker with an unscheduled injury may receive benefits taking into account age, education, and adaptability, as well as impairment. For those not returning to their regular work at the job at injury, unscheduled awards may be increased beyond impairment value if the injured worker is age 40 or older, or has relatively little specific vocational preparation (as measured by education and skill level), and if the worker's functional or physical capacities after recuperation from the injury are lower than prior to the injury.

Beyond the issue of the size of a PPD award, for most workers with an injury severe enough to result in permanent disability, return to work and a steady income after claim closure are a vital concern. Time off work, as well as disability, can affect future employment prospects. In Oregon, two programs assist the worker whose permanent disability prevents return to regular work, while a third promotes light-duty work during the recovery period for any worker with an accepted claim. Overall, the effect of the three reform bills has been de-emphasis of vocational assistance, which involves development of a return-to-work plan often including retraining, with costs paid out of premiums—in favor of incentives to employers to return injured workers to work, with cost paid out of the Workers' Benefit Fund, from 'cents-per-hour' assessments on employers and workers. Current counts of vocational assistance cases have shrunk by about 90 percent from the peak reached

in 1987. The restrictions placed on vocational assistance mean that only the most difficult cases receive vocational services. Most workers no longer eligible for vocational assistance under HB 2900 have been eligible for reemployment incentives under the Preferred Worker and Employer-at-Injury Programs.

The Preferred Worker Program came into existence in 1988 and was redesigned in 1990 under SB 1197. Currently, an injured worker is identified as a Preferred Worker when the injury results in a permanent disability that prevents return to regular employment, either the job with the employer at injury or similar work. The Preferred Worker may then offer to prospective employers the benefit of premium exemption, which gives the hiring employer a three-year exemption on payment of worker's compensation premiums and premium assessments on the worker, and full claim cost reimbursement to the employer's insurer if the worker has an injury during the three years. The worker may also offer reemployment assistance in the form of a six-month 50 percent wage subsidy; obtained employment purchases of items and services required as a condition of employment; and worksite modifications, which alter the worksite through construction or new equipment or processes. As of July 1998, over 8,000 permanently disabled workers have used Preferred Worker benefits since 1990 to return to work.

The Employer-at-Injury Program was created in 1993 by authority conferred by statute upon the director of the department. The program is available during the open or recovery period of the claim when the worker is able to return to light duty with the employer at injury. Incentives include three-month wage subsidies, purchases, and worksite modifications. SB 369 expanded the program to include nondisabling claims, beginning in 1996. In the first two years of subsidized early return to work for nondisabling injuries, well over 4,000 injured workers returned to work the day of injury or during the first two days after injury. Given the drop in disabling claims during the last two years, a substantial number of these injuries likely would have become disabling, with compensation for temporary disability due, if not for the Employer-at-Injury Program. Thus, much of the recent drop in disabling claims apparently is due to the expansion of the program to nondisabling claims. It is also possible that early return to work forestalled an

award for permanent disability for many of those injuries.⁸

Among disabled workers using the Employer-at-Injury Program, around 38 percent have an injury that results in a PPD award determined at claim closure, following the end of the light duty. Although departmental data on return to work are limited in their usefulness, all indications are that most of those permanently disabled workers continue to work at the employer at injury at claim closure. That being the case, the Employer-at-Injury Program probably results in fewer unscheduled PPD awards modified (increased) by the factors of age, education, and adaptability. In addition, a worker's right to reinstatement to the job at injury was strengthened by SB 1197, although new exclusions were placed upon that right, and more restrictions were added by SB 369.

An evaluation of the Employer-at-Injury Program's effectiveness in returning workers to work, as part of an analysis of return-to-work experience for all disabled workers, is currently in the planning stage. A departmental study from 1995, *Return to Work Experience, 1991-1993, for Oregon Workers' Compensation Claims Closed in 1991*, showed that 92 percent of claimants with a PPD award who were released to regular work actually returned to some kind of wage-paying work in Oregon in the two years after claim closure. Most often, that work was with the employer at injury, though there were no data to show whether return to the job at injury had increased due to SB 1197's reinstatement rights. Overall, employment rates for these workers declined over time, somewhat more so than for a control group of Oregon workers, and wages did not increase quite as quickly. For those not released to regular work, use of Preferred Worker benefits or vocational assistance resulted in substantially improved employment experience, compared to workers not using their reemployment benefits. The study did not attempt to measure the effects of the then-new Employer-at-Injury Program or establish a baseline for light-duty work during the open-claim period. The study did find the worst return-to-work experience among claimants who settled their claims by Claim Disposition Agreement (CDA). Most of those workers had a permanent disability from the workplace injury. Little in the way of explanation was uncovered for the CDA's negative association with return to work; long claim duration may be an important factor.

⁸Two theories, not necessarily mutually exclusive, have been advanced. First, there is no determination of permanent disability for a nondisabling claim. A second possibility, though research is scant, is that early return to work results in significantly less loss of range of motion, perhaps even no loss (conversation with Dr. Niklas Krause, Public Health Institute, Berkeley, CA).

SB 1197 legalized compromise and release settlements on accepted claims, via a Claim Disposition Agreement requiring approval by the Worker's Compensation Board. The CDA typically involves release by the worker of all rights to compensation, except for medical services and Preferred Worker benefits, in exchange for a lump sum payment. The board reviews agreements on the basis of law, not dollar amounts. The most recent data show an average settlement of almost \$15,000 for disabling claims. CDAs may occur before closure, in which case some of the settlement proceeds may be directed toward a permanent disability, what would have been a PPD award. More often, CDAs occur after a claim has been closed, perhaps to end or forestall litigation over PPD benefits. The impetus for many CDAs is to buy out eligibility for vocational assistance, as well.

The legalization of this type of settlement has had a profound effect upon PPD trends in Oregon, as well as return to work. On the one hand, changes in the law that have made provision of PPD benefits more predictable and awards more generous have also made PPD benefits more difficult to obtain. On the other hand, claimants and insurers may now choose to end all uncertainty about benefits by entering into a Claim Disposition Agreement.

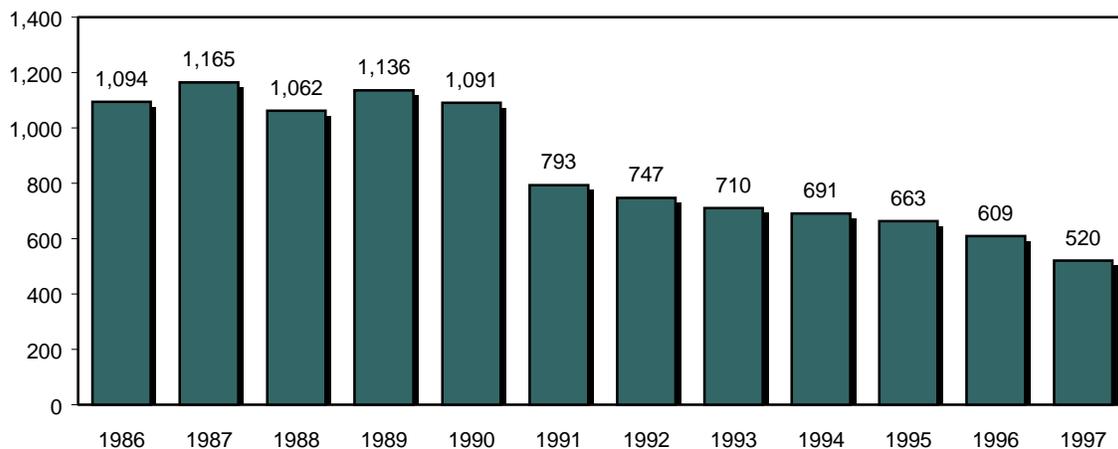
Claims with PPD

Care should be taken when comparing data from this report to national data. The National Council on Compensation Insurance (NCCI), for example, defines

PPD claims as including any claim with a settlement. For Oregon, this means that NCCI considers a Disputed Claim Settlement on a denial and a CDA on any accepted claim to be PPD claims. NCCI also reports all costs, not just the PPD award, for those claims. In this section of the report we cover claims awarded PPD, based upon the year of first award; in the next, claims with PPD based upon the year of last award, focusing on average awards to claimants; and in the final section, PPD awards at the system level, emphasizing the year in which benefits were arranged, with some attention to the effects of CDAs, patterns of claim development, and frequency of awards on aggravation. In general, claim costs cited include only the PPD award, even though most PPD claims also have time loss (temporary disability) and medical service payments. All costs are given in current dollars, unless otherwise noted.

Grants. While the typical injured worker with a permanent disability receives one arrangement of PPD benefits, many receive additional benefits on appeal. Others suffer an aggravation, currently defined as a claim reopening due to a worsened condition resulting from the original injury, occurring in the course and scope of employment. Following recovery from the aggravation, the claim is closed again, and additional PPD may be awarded. Because an injured worker may have multiple arrangements of PPD over the life of the claim, counting orders awarding PPD overstates the number of claims with PPD. In this report, counts of claims with PPD are

Figure 3. PPD grants per 100,000 covered employees



Note: Grants are claims with PPD counted by the year of the first arrangement of benefits.

based upon the year of the first award, or grant, of PPD, and exclude subsequent awards.

Over the last 12 years, claims with PPD (grants) as a percentage of claims closed has shown little variation from an average of around 30 percent. The recent trend had been one of modest growth, to 32.2 percent of claims closed in 1996, but 1997 saw a drop to 29.8 percent. However, Figure 3 shows a sustained, sharp decline in a broader measure of PPD incidence, grants per 100,000 Oregon employees. The 1997 rate of 520 PPD grants per 100,000 workers is less than half that of the recent peak year of 1987, when HB 2900 was passed. Decreases in the PPD rate following HB 2900 were modest. The largest drop occurred in 1991, the first full year following passage of SB 1197. Declines in the frequency of PPD continued thereafter, at a fairly steady rate. The trend line deepened in 1996, the first full year after passage of SB 369, and dropped strongly again in 1997.

Since 1987, PPD incidence among Oregon workers has declined by 55.4 percent, compared to a 51.4 percent reduction in the rate of accepted disabling claims. Although more of the reduction in the claims rate, compared to the PPD rate, came prior to SB 1197, changes in these incidence rates are not easily attributable to specific bills. One complicating factor is that the effects of an earlier law change may be delayed or still operating strongly years later, even while newer amendments appear to be more prominent. Another complexity is the interplay of the law changes—whether a specific provision has more effect on compensability or disability determinations, or works on both. Safety initiatives may have varying effects upon severity of injuries, as well as the frequency. Other outside influences, such as changes in the industrial mix toward less hazardous employment, and employer reactions to increasing premiums for workers' compensation, also play a role in incidence.

The legalization of the CDA by SB 1197 is one important change that has affected PPD rates much more than claims rates. However, even if all the CDAs on disabling claims with no award for permanency were in fact se-

vere enough to have a PPD award (if not for the CDA), only about 8 percentage points of the 55.4 percent drop in the PPD rate is explained by CDAs.⁹ Controlling for the impact of CDAs upon PPD grants since 1987, PPD incidence declined less than disabling claims incidence. However, another analysis, using the year of CDA legalization as the base for comparing change rates, shows that the reduction in PPD incidence is stronger since 1990 than the decline in the claims rate, even after controlling for the effects of the CDA.

Be that as it may, factors behind much of the drop in PPD incidence are undoubtedly similar to reasons for the drop in the claims rate. WCRI found that PPD incidence did not decline, though its report cautioned that some effects of reform may not have been evident at the time of its study.¹⁰ Obviously, PPD incidence has declined. The same WCRI report estimates the impact of different factors upon the claims rate. Although the underlying assumption of the analysis is that most of the reduction occurred for lower-cost, less severe claims—which more current data show is not necessarily true—WCRI's estimates may provide some insight into the relative importance of reasons behind the drop in the PPD rate:

- at least one-third from increased attention to safety;
- at least one-third from stricter claim screening and more denials;
- one-tenth from stricter compensability standards;
- one-tenth from a less hazardous employment mix;
- and one-sixth from a combination of safety and claims handling practices.¹¹

WCRI's analysis, then, attributes as much as 50 percent of the drop in claims, and by extension, claims with PPD, to safety initiatives. These include several changes to statute; increased funding for enforcement, consultation, and training by OR-OSHA (Occupational Safety and Health Division of the department); and increased safety consciousness among employers and workers reacting to increases in worker's compensation costs. Data more current than that available for the WCRI study also point to a prominent role for increases in safety consciousness.

⁹The CDA's effect in the incidence of accepted disabling claims is little or none because claim acceptance is a prerequisite for a CDA, although some of the 295 accepted nondisabling claims settled in FY 1997 may have ended up disabling if the claims had developed fully. Subtracting the 1,563 FY 1997 CDAs on claims with an award for permanent disability from the total of CDAs on disabling claims yields an estimate of 1,395 claims settled by CDA, maximum, that otherwise might have become PPD claims in 1997.

¹⁰The study followed 1989 and 1991 claims through 1994. A decrease in PPD propensity was found for PPD under the NCCI definition, which include settlements as well as PPD awards, but that reduction was attributed entirely to a decline in Disputed Claim Settlements on denied claims rather than PPD awards strictly defined. *The Impact of Oregon's Cost Containment Reforms*, WC-96-1, February 1996, pp 110-113.

¹¹*The Impact of Oregon's Cost Containment Reforms*, pp 87-103.

The annual Occupational Safety and Health (OSH) survey, conducted by the department and the federal Bureau of Labor Statistics, shows a reduction since 1987 of 52.1 percent in the incidence rate for days away from work cases due to a workplace injury—very close to the declines in both the claims and PPD rates. Of the several OSH incidence rates, days away from work cases is the best proxy for the PPD rate, though far from perfect. The OSH survey’s standard for recordability of injuries includes those where a worker’s compensation claim may have been denied or not even filed. This makes the OSH

data a more comprehensive indicator of workplace injuries than counts or rates of worker’s compensation claims, which are subject to changes in the law—and arguably, makes the OSH data the clearer measure of the effects of safety.¹² However, the decline in the OSH survey rate has been much more steady than the decline in the PPD rate, which has seen steep drops in the years immediately following passage of SB 1197 and SB 369. These steep drops suggest factors in addition to safety initiatives at work on the PPD rate.

Text Table 1. PPD grants, 1986-1997

Year of first award	PPD grants	% Eval/NOC	% on appeal	Mean degrees	Scheduled				Unscheduled			
					Claims	% Eval/NOC	% on appeal	Mean degrees	Claims	% Eval/NOC	% on appeal	Mean degrees
1986	11,642	88	12	35.5	5,737	94	6	19.3	6,416	84	16	47.1
1987	12,877	84	16	36.0	5,997	92	8	20.2	7,428	79	21	46.1
1988	12,336	85	15	34.9	5,960	92	8	19.1	6,945	80	20	45.5
1989	13,800	89	11	38.7	6,419	92	8	18.3	8,088	87	13	51.5
1990	13,730	91	9	34.7	6,742	93	7	17.9	7,663	89	11	46.4
1991	9,980	92	8	32.5	5,487	95	5	17.6	4,995	90	10	45.5
1992	9,562	90	10	33.4	5,249	91	9	17.2	4,786	88	12	47.9
1993	9,349	89	11	35.0	5,242	91	9	17.1	4,666	88	12	51.0
1994	9,529	90	10	33.0	5,434	91	9	16.2	4,601	89	11	49.2
1995	9,491	89	11	31.4	5,602	90	10	16.2	4,377	87	13	47.2
1996	9,060	89	11	30.3	5,570	91	9	15.6	3,984	87	13	47.1
1997	8,055	91	9	28.5	5,100	92	8	15.2	3,312	89	11	45.9

Note: Eval/NOC = Determination Orders and Notices of Closure. On appeal includes reconsideration. Data include awards which have been rescinded. Some claims have awards for both scheduled and unscheduled body parts. Other claims with an award for one benefit type at initial grant may have an award for the other at subsequent appeal or aggravation.

Text Table 1 shows trends in the number of PPD grants, broken out by whether the PPD came at appeal and by benefit type, scheduled or unscheduled. Again, data on the first award or grant of PPD does not include subsequent arrangements of PPD benefits. Note also that claims may have awards for both scheduled and unscheduled disability. A claim may receive both types of benefit at PPD grant, in which case both benefit awards are reflected in this table; or it may receive one type of benefit at grant but end up with an award for the other type, on further appeal or following an aggravation claim. Those subsequent benefits are not reflected in this table. In other words, this table presents a complete picture of the number of claims with PPD, but not the number of

claims with either scheduled or unscheduled benefits, nor average benefits through the duration of a claim.

Grants showed an upward trend from 1986, peaking at 13,800 in 1989, then declined substantially to 9,980 in 1991, following passage of SB 1197, and again after SB 369, to 8,055 currently. Grants including an award for unscheduled disability peaked at 8,088 in 1989, or 58.6 percent of the total, and have dropped steadily to 3,312 (41.1 percent of the total, apparently the lowest percentage since 1980) in 1997. The decline in grants including a scheduled award has been less steep, from a peak of 6,742 in 1990 to 5,100 currently.

¹²Some observers, particularly those aligned with injured workers, point out that pressure to refrain from filing claims is a large though unmeasured problem – even with the practice being illegal – and that when a claim is not filed, the employer’s injury and illness log likely will not reflect an entry from the injury. The result is an undercount of recordable injuries. An implicit acknowledgment of this may be found in WCRI’s discussion of incidence rates at pp 99-100, in *The Impact of Oregon’s Cost Containment Reforms*. Note that the department receives few complaints about employer pressure to not file a claim, though one recent investigation found that an employer suppressed filing of over 100 claims. If an under-reporting problem exists, it is likely less extensive for injuries severe enough to warrant a PPD award.

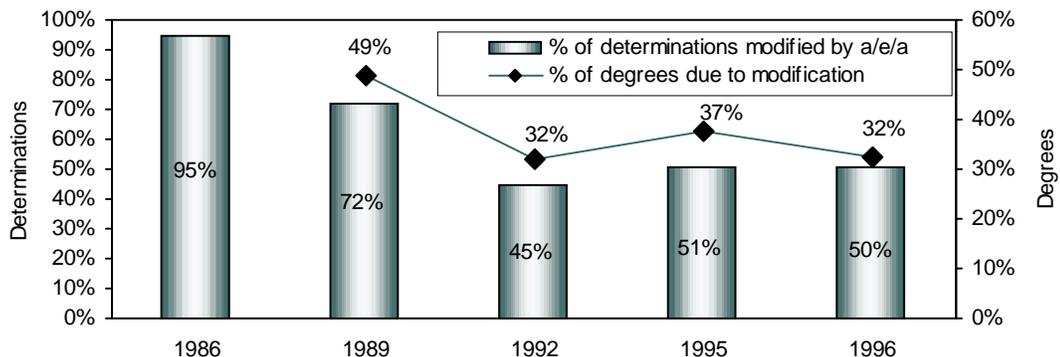
The percentage of PPD grants on appeal (including reconsideration, from 1990) has declined substantially (see Appendix A). The bulk of the reduction occurred in the years immediately following the first major law change, HB 2900, reaching a low point in 1991 and staying around a 10 percent rate thereafter. The drop has been sustained only for grants including unscheduled awards. Grants for scheduled awards at appeal have been at historically high levels, although there appears to be a recent downward trend. The expanded authority of insurers to close claims may have contributed to the higher rates for grants at appeal, at reconsideration in particular. In 1997, for example, 542 insurers' Notices of Closures were amended upon reconsideration to include a grant of PPD benefits, compared to 209 departmental Determination Orders. WCRI found that 'most employers and insurers prefer to initially close claims and rate permanency, especially if a permanency rating is relatively low, rather than risk a higher rating by the department. The burden then falls on the worker to contest the insurer's rating.¹³ For 1997 cases, workers appealed 14 percent of insurer closures, compared to 13 percent of departmental decisions.

Average degrees awarded by a PPD grant has declined since 1989, and average degrees for each benefit type has also dropped. The temporary rise in average total degrees awarded at PPD grant, in 1992 and 1993, as well as 1994's relatively high average compared to 1991, closely parallels a temporary upswing in average

unscheduled degrees awarded. The relatively high unemployment rate during the early part of the decade probably explains 1992: higher unemployment rates make return to work more difficult, and statute provides for the possibility of an unscheduled award beyond impairment in the event that a claimant cannot return to work. The Supreme Court's 1993 *England* decision (315 Or 633) loosened the interpretation of earning capacity in determining unscheduled benefits, in essence holding that benefits beyond impairment might be due a claimant even in the event of a return to work. The result was higher average unscheduled awards from around late 1993 into 1995, when SB 369 reversed the court's decision. Note, again, that this table does not present a complete picture of average benefits, because more benefits may be due on further appeal or following claim reopening.

Effects of age, education, and adaptability on unscheduled PPD. The department does not collect computerized data on the effects of age, education, and adaptability upon unscheduled awards. However, this report includes results of case file research on the prevalence of unscheduled awards modified (increased) by these three factors, from a sample of claims with unscheduled PPD. The sample was drawn from records of determination at the initial level, Determination Orders (DOs) and Notices of Closure (NOCs), and was stratified by year, at three-year intervals.¹⁴ The latest year's data available at the time, 1996, was added to the sample

Figure 4. Effects of age, education, and adaptability on unscheduled PPD



Notes: "a/e/a" is age, education, and adaptability. The sample included Notices of Closure in 1995 and 1996, and Determination Orders in all years. No attempt was made at isolating the effects of a/e/a upon 1986 degrees.

¹³ *Workers' Compensation in Oregon: Administrative Inventory*, p 81.

¹⁴ Worksheets supporting insurer's Notices of Closure were not available for 1989, but insurers closed very few PPD claims that year. A more serious problem was that worksheets were not available for NOCs in 1992, either, a year in which insurers closed over 40 percent of PPD claims. Thus, the sample included DOs for all years sampled, but NOCs for 1995 and 1996 only. The results of the sample are best compared to the data set of PPD grants, but the sample includes some claims where unscheduled PPD had been modified by DO or NOC following vocational assistance or other claim reopening.

frame, as well, to distinguish any effects of SB 369, particularly its response to the *England* decision.

Under the administrative rules in effect in 1986, unscheduled awards could be modified by age or education or adaptability, as well as several other factors, regardless of return-to-work status. Thus, 95 percent of 1986 determinations included at least one of the currently recognized three non-impairment factors in the rating calculations. While the values for many of the factors could be negative, thereby leading to an award decreased below the rating on impairment, the survey results showed few negative values for the factors studied. Because of the complicated nature of the now-discarded rating system, no attempt was made to estimate the effects of just age, education, and adaptability upon the total unscheduled degrees awarded.

For 1989 cases, standards required that only age, education, and adaptability be considered, and these factors were not applicable where the worker returned to the “usual and customary work.” Not surprisingly, the percentage of modified determinations declined substantially. By April 1991, “usual and customary work” was replaced by “regular work,” and a physician’s release to regular work precluded modification by age, education, and adaptability, as well. By 1992, then, modified determinations had again declined substantially, and the percentage of degrees due to modification was much lower.

The *England* decision was put into the standards in late 1993, and the upward spike in 1995 was probably due mostly to that change: both the percent of determinations modified and percent of degrees on modification would have been similar to the numbers for 1992 had there been no cases with modifications on release or return to regular work. The 1996 data, reflecting the reversal of the *England* decision, show a 50 percent rate of modification, somewhat high compared to 1995—perhaps a product of an unemployment rate higher than the previous year’s, although 1996 was lower than 1992 unemployment. By all measures, the percent of degrees awarded due to modification dropped in 1996, back to 32 percent.

The sample, though limited to five years, was sufficiently large to require many hours of research. Unfortunately, the sample frame did not yield data that we could analyze for the effects of the Employer-at-Injury Program, other return-to-work efforts, and the unemployment rate.

Claim characteristics. Like the PPD rate, the number of PPD grants, particularly those with an award for

unscheduled benefits, plunged in the years immediately following passage of SB 1197 and SB 369. It does not seem likely that injury prevention would have been more successful in reducing severe unscheduled injuries—to the back, shoulders, and neck—than severe injuries to arms and legs, nor does it seem likely that safety initiatives would have shown relatively large effects in just two or three years out of ten. On the other hand, large drops in PPD grants in 1991 might be attributed in part, at least, to the expanded threat (or visibility, depending on one’s perspective) of an OR-OSHA that had been authorized many more staff, on the heels of SB 1197. Overall, the evidence suggests that, in addition to safety consciousness, law changes such as “objective findings,” “major contributing cause,” and “statutory closures” have played a role in the declining number of claims with PPD. Furthermore, expansion of the Employer-at-Injury Program under SB 369 may have resulted in a drop in claims with PPD, as well as disabling claims.

Tables 1 through 8, located immediately after the text of this report, present extensive data on the kinds of claims receiving PPD awards from 1986 through 1997, according to information on the Form 801 (first report of injury) completed by injured workers and their employers. The department currently uses the BLS Occupational Injuries & Illness Survey coding scheme for describing injuries, by nature of the injury, part of the body injured, event leading to injury, and the source of the injury. Note that part of body injured captures the body part most directly affected by the injury as observed at the time of the injury, often before a doctor’s diagnosis, and these data do not necessarily correspond to the parts of the body for which PPD benefits are awarded. Most data in Tables 1 through 4 were translated from an earlier coding scheme, rather than coded according to the current OII standards. Although the translation was not perfect, the problems were few enough that conclusions drawn from comparisons across the years, especially at the high level of classification in Tables 1 through 4, are valid (see Appendix A).

The most common nature of injury resulting in a PPD grant, sprains and strains, declined from a crest of 57 percent of 1989 grants to 49 percent in 1995, followed by dives to 43 percent in 1996 and 35 percent of 1997 grants. The number of PPD grants due to sprains and strains declined by more than 2,300 in 1991, accounting for much of the drop of 3,750 total PPD grants in that first full year after SB 1197. Later on, the number of PPD grants due to sprains and strains decreased by 749 in 1996 and by 1,017 (to 2,854) in 1997. Similarly, total

PPD grants fell by 431 in 1996 and 1,005 the next year. Although the number of PPD claims for other, less-prominent natures of injury, such as cuts and abrasions, declined significantly in the last two years, the sudden drop in the number of grants for sprains and strains appears to explain much of the plunge in total grants following passage of SB 369.

It seems unlikely that safety initiatives alone could so abruptly and substantially reduce severe sprains and strains. Tightened definitions of “major contributing cause” and “objective findings,” as well as the introduction of “statutory closures,” possibly played a role in these reductions. However, the effects of those law changes upon PPD can be evaluated fully only with additional study. Another possibility is that the expansion of the Employer-at-Injury Program under SB 369 resulted in a drop in claims with PPD,¹⁵ as well as disabling claims such as sprains and strains.

Part of body injured shows a dramatic decline in the prominence of back injuries resulting in claims with a PPD award, from a peak of 33 percent in 1987 to the current 17 percent. Numbers show a steady descent from the high point of 4,299 PPD grants on back claims in 1989—with the notable exception of a downslide of more than 1,400 in 1991 following passage of SB 1197, which codified “major contributing cause” and “objective findings” and restricted the definition of attending physician. There were 1,405 grants of PPD benefits for back injuries in 1997. Injuries to upper extremities have steadily increased their share of the total, overtaking the back in 1991, and now account for 32 percent of grants. The number of grants for upper extremity claims had been increasing recently, but dipped nearly 10 percent

to 2,570 in 1997. Injuries to lower extremities have increased in prominence to 23 percent of grants, although the 1997 figure of 1,861 represents an historical low point.

The event most often associated with PPD claims, at 25 percent in 1997, is contact with objects, including injuries such as those caused by being “struck by” or “caught in.” Injuries due to overexertion lost their number-one ranking in 1997, accounting for 24 percent, down from 37 percent in 1989. Bodily reaction (such as from slips or unnatural motions, including repetitive motion) accounted for 22 percent of 1997 PPD grants. Falls contributed another 19 percent. In terms of numbers of PPD claims, incidents described as bodily reaction have shown an upward trend since 1994, at 1,760 currently, which is still well below the 1989 peak of 2,263 PPD claims for bodily reaction. Grants for other accident events have fallen. Overexertion, especially, accounted for 1,939 PPD claims in 1997 compared to 5,108 in 1989. The largest drop in PPD for overexertion claims, over 1,500, came in 1991, and a further drop of 1,000 PPD claims occurred in the two years following passage of SB 369.

Bodily conditions and motion, such as misstepping or other unnatural body positions, and more rarely, heart attacks and stress, became the most frequent source of PPD claims in 1997, at 22 percent, compared to 16 percent in 1986. The number, as well, of such PPD grants has recently shown an upward trend, although the 1997 figure of 1,804 is still well below the 1989 crest. Structures and surfaces, often the source of injury from falls to the ground or floor, have held fairly steady at around 20 percent over the years, though the number of those PPD claims shows a downward trend.

Text Table 2. PPD grants compared to claims closed

Injury type	PPD grants as percent of claims closed			PPD grants			Claims closed		
	1987	1992	1997	1987	1992	1997	1987	1992	1997
Sprains, strains	30%	31%	23%	7,172	5,039	2,854	23,534	16,510	12,208
Dislocations	51%	60%	77%	455	462	959	893	774	1,245
Fractures	36%	41%	45%	1,186	1,097	1,131	3,278	2,650	2,524
Upper extremities	32%	38%	39%	2,864	2,596	2,570	9,033	6,919	6,639
Lower extremities	29%	33%	34%	2,308	1,922	1,861	7,884	5,889	5,550
Back	31%	27%	21%	4,205	2,402	1,405	13,647	8,752	6,770

¹⁵The department does not collect data on nature of injury, etc. for nondisabling claims, even when there is participation in the Employer-at-Injury Program.

Text Table 2 is an analysis of the propensity for accepted claims for common kinds of injury to become claims with awards for PPD. Sprains and strains shows a declining PPD rate by 1997, while a drop for back injuries was evident by 1992, even as it had deepened five years later. Both kinds of claim now have relatively low PPD rates, in the range of 20 to 25 percent. Both kinds of claim have seen large reductions in the numbers of claims closed and PPD grants. Increased emphasis upon safety probably has reduced sprains and strains and back claims. However, most of these claims occur due to overexertion, and they often involve pain not easily measured as objective findings, plus long-term degeneration due in some part to off-duty as well as workplace activities. Thus, the reduction in these claims and their propensity for PPD is likely related to changes in statute on “major contributing cause” and “medical evidence supported by

objective findings,” as well as increased attention to the safety aspects of work requiring exertion. Changes in the management of return-to-work may also have had an influence.

Dislocation claims increased both in numbers and propensity for PPD awards between 1987 and 1997, with a current PPD rate of 77 percent of dislocation claims closed. Fractures show climbing PPD rates, currently at 45 percent, with the number of PPD grants holding fairly steady even as closures go down. The PPD rates for bodily extremities have increased moderately. When the number of claim closures declines but the PPD rate increases, as is the case for injuries to extremities, then a reasonable conclusion is that injury prevention initiatives are working stronger on the less severe injuries to extremities.

Text Table 3. Grants of PPD per 100,000 covered employees, by industry

Industry	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Total	1,094	1,165	1,062	1,136	1,091	793	747	710	691	663	609	<u>520</u>
Ag, for, fish	1,181	1,184	1,153	1,335	1,126	745	767	741	653	631	571	<u>382</u>
Mining	1,714	2,643	1,538	2,267	2,063	1,250	<u>938</u>	1,176	1,813	1,059	1,278	1,722
Construction	2,776	2,989	2,343	2,341	2,324	1,949	1,833	1,617	1,617	1,464	1,332	<u>1,239</u>
Manufacturing	1,972	2,080	1,823	1,921	1,922	1,469	1,315	1,217	1,113	1,111	1,052	<u>873</u>
Trans & pub util	1,698	1,679	1,554	1,610	1,643	1,205	1,229	1,173	1,163	1,194	1,142	<u>1,016</u>
Wholesale trade	896	960	861	925	912	712	629	586	626	569	524	<u>475</u>
Retail trade	797	857	865	945	904	637	604	572	570	520	497	<u>415</u>
Finance, ins, RE	321	298	307	340	309	245	233	226	191	216	198	<u>141</u>
Services	712	821	739	823	793	545	537	517	517	465	392	<u>328</u>
Public sector	714	705	661	756	655	448	477	502	485	482	419	<u>394</u>

Note: **Bold** denotes 12-year high for industry; underline, 12-year low.

Text Table 3 shows the varying effects by industry of the drop in PPD grants per 100,000 covered workers. Over the 12 years analyzed, the rates for most industries peaked in 1987 or 1989, declining each year from 1991 onward to historical lows, year after year. Agriculture, forestry, and fishing dropped by 71 percent between 1989 and 1997, moving from an industry with one of the higher rates for PPD incidence to one of the lower.¹⁶ PPD rates for construction; manufacturing; wholesale and retail trade; finance, insurance, and real estate (FIRE); and services have been cut by more than half. Reductions for transportation and public utilities and the public sector have also been substantial. Only mining, an industry employing few Oregonians, construction, and transportation and public utilities have current PPD rates above 1,000 per 100,000 workers.

Despite rising employment in both industries, the numbers of PPD grants for agriculture, forestry, and fishing and manufacturing have been cut in half from the historical high points. While the shift from wood-products toward “high-tech” computing and electronics is sometimes overstated, changes in the manufacturing base have undoubtedly contributed to fewer PPD grants. Retail trade, FIRE, and services have also sustained reductions near 50 percent, and employment growth in those “safer” industries, combined, has been high, from around 500,000 covered workers in 1986 to about 770,000 currently. Again, WCRI estimated that changes in the industrial mix, away from more hazardous forms of work, contributed about 10 percent to the overall reduction in claims—and perhaps a similar amount to the reduction in PPD grants. For most industries,

¹⁶Most fishing ventures in Oregon are not covered by the Workers’ Compensation Law.

however, dramatic drops in PPD grants occurred in 1991, following passage of SB 1197 and expansion of OR-OSHA. PPD grants in the services industry dropped by 10 percent in both years following passage of SB 369, and industries other than mining and construction saw PPD grants reduced by at least 5 percent in 1997, as well. For most industries, the trendline for PPD grants is down more jagged than steady.

Table 5 displays trends in the percentage of PPD grants by industry. Industries with noteworthy changes in the distribution include manufacturing, falling from 34 percent of PPD grants to 26 percent currently, and construction, increasing from 8 percent to 13 percent of claims with PPD awards. Allowing for the typical one-year lag from injury to first award of PPD, interesting comparisons may be made to the distribution by industry of all disabling claims. Manufacturing accounted for 26 percent of PPD granted in 1997, but only 21 percent of disabling claims accepted in 1996. Construction was 13 percent of PPD and 11 percent of disabling claims. On the other hand, retail trade was 15 percent of PPD but 18 percent of disabling claims, and services showed a similar spread.

Trends in occupational groups as a percentage of PPD grants may be found in Table 6. Construction trades have increased in share from 6 to 10 percent of PPD grants. Foresters, loggers, and fishers dropped from 7 to 3 percent of PPD grants. Throughout the 12 years, the groups most associated with PPD grants have been laborers (excluding farm workers), operatives (excluding transportation), and service occupations. All three groups have significantly lower shares for PPD claims than for all disabling claims, however. Several groups have disproportionately high percentages of PPD claims, including, surprisingly, professional and managerial occupations.

Table 7 shows that the average span from injury to first award of PPD is currently 1.2 years, down from 1.5 years for 1986 through 1988 grants. This downward trend is unsurprising, given changes in the law that have also produced a substantial decline in the percentage of PPD grants coming on appeal, compared to ten years ago. While much of the reduction in the average time to PPD grant is a function of decreased duration of time loss, another important factor is the replacement of hearings with administrative reconsideration as the first step in appealing a PPD determination.

Other, mostly demographic, data further distinguish PPD claimants from all workers with disabling claims, again

using a one-year lag for analysis. The average weekly wage at injury for PPD claimants has been somewhat higher throughout the 12 years, but also shows slightly stronger growth over time. Current figures are \$468 for 1997 PPD claims and \$437 for 1996 disabling claims. Average age at injury has been rising for both PPD and disabling claims, as has the average age of Oregon workers. Average tenure with the employer at injury also shows an upward trend. But the more severe injuries leading to PPD awards occurred on average at age 41 for 1997 grants, compared to age 38 for 1996 disabling claims. And males accounted for a disproportionately high percentage of claims with PPD, reaching a peak of 71 percent in 1997 on a recent upward swing, compared to 68.5 percent males accounting for all disabling claims.

Table 7 also presents a snapshot of PPD claims that have gone on to settlement by CDA. Relatively few older PPD claims have ended by CDA, but the percentage is higher year by year, until grants from 1991 through 1995 show a 16 to 18 percent rate for CDAs. Figures for later years will likely increase as claims continue to develop, with reopenings and litigation. Interestingly, 10 percent of 1997 PPD grants have released future benefits via a CDA, as of September 1998. Again, these data include only those claims with an actual award of PPD, and do not account for the several hundred claims per year that settle prior to claim closure and disability determination.

The most populous county, Multnomah, holds the largest share of PPD grants, 23 percent currently, which is disproportionately low compared to the 1996 figure of 25 percent for all disabling claims. The next highest county, Lane, had 10 percent of PPD grants in 1997, compared to an 8 percent share of disabling claims (see Table 8).

Insurers. The department administers the Workers' Compensation Law, but it is insurers—public, private, and self-insured employers—that process claims and pay most benefits to injured workers. The insurer type with the most PPD claims has usually been SAIF, the state fund, which held a 33 percent share in 1997. The percentage of PPD grants for the largest private carrier, the Liberty Group, has been declining since the peak year of 1991, to 23 percent currently. Other private carriers, nearly 200 companies in total, accounted for 23 percent of PPD claims in 1997, with self-insured employers following at 20 percent. Non-complying employers made up the remaining 1 percent of grants (see Table 9).

In contrast to the share of PPD grants, PPD rates (or PPD grants as a percentage of closures) measure PPD

propensity. PPD rates vary by insurer type, with differences in the risks insured and claims management as two important determinants. For 1997 closures, both SAIF and Liberty had a PPD rate of 33 percent, compared to 30 percent for self insurers and 24 percent for other private insurers. Other private insurers have shown a downward trend in their aggregate PPD rate, from 31 percent in 1989, while SAIF, Liberty and self-insurers have experienced more stable PPD rates.

Average awards per claim

Counting claims with PPD by the year of the first award is a convenient method for arriving at stable counts. However, many claims continue to develop, adding benefits through litigation and claim reopenings. In the absence of data from insurers on reserves (the estimate of total costs) for individual claims, the best means of analyzing average PPD awards per claim is to look at the year of last award. For any given year, counts of PPD claims by year of first award (grant) will not be the same as counts of PPD claims by year of last award, although many claims with a grant in 1997, for example, will have their final award of PPD in 1997, as well. The main problem with the year-of-last-award method is that some claims, especially those categorized into the most recent years, will continue to develop: the grant will come in 1997, and current data on development will show 1997 as the year of last award, but the future will bring another PPD award in 1999, which will characterize the claim as 1999 rather than 1997. Thus, later years' data in this section will likely change: counts of PPD claims where the last award was 1997 will decrease by perhaps 5 percent over time, but figures for average degree and dollar awards will be more stable.¹⁷

Text Table 4. Average PPD awards per claim

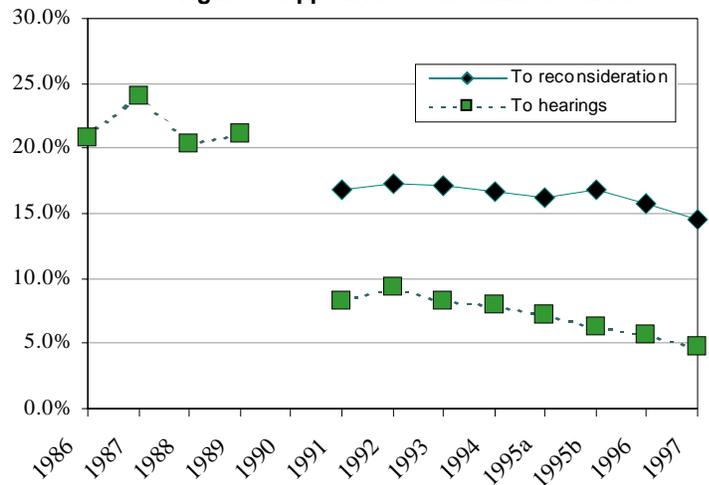
Year of last award	Claims	Mean orders granting/ modifying PPD	Mean PPD dollars
1986	11,026	1.5	\$5,264
1987	13,931	1.6	\$5,852
1988	13,640	1.5	\$5,804
1989	13,546	1.4	\$5,587
1990	15,280	1.5	\$5,586
1991	10,822	1.4	\$5,337
1992	10,043	1.4	\$5,600
1993	9,675	1.4	\$6,034
1994	9,899	1.4	\$6,055
1995	9,979	1.4	\$6,402
1996	9,667	1.4	\$6,550
1997	8,659	1.3	\$6,964

Note: Degrees and dollars are summed for all conditions rated for a claim.

¹⁷For example, figures for claims with the last unscheduled award in 1996, current as of the end of July 1998, were 4,324 claims at an average 52.2 degrees; as of April 1998, 4,356 claims at an average 52.3 degrees; and as of October 1997, 4,419 claims at an average 52.5 degrees.

Claims with PPD, tallied by the year of last award, peaked in 1990 at 15,280, plunged to 10,822 in 1991, and declined steadily thereafter, before dropping in 1997 by about 10 percent, to 8,659. This trend is similar to that for data on the first award of PPD (analyzed in the prior section). Text Table 4 also shows the average number of orders granting or modifying PPD, at a height of 1.6 orders per claim in 1987, down to 1.3 orders by 1997. This decrease may strike some observers as surprisingly small. Statutory influences upon this statistic include standardization of rating and other changes to appeals processes that overall discourage litigation, restrictions on compensability of aggravation claims, and, perhaps most importantly, the legalization of CDAs, for orders approving CDAs are not counted in calculating this statistic.

Figure 5. Appeal rates for claim closures



Note: No data are available for 1990. 1995 is split in two-six month periods. The 1997 rate is preliminary.

One of the aims of SB 1197 was to reduce litigation, especially of closures to hearings and beyond. Figure 5 shows that formal appeals have dropped substantially, from 21 percent of closures in 1989 to 8 percent in 1991 to just under 5 percent currently. However, formal appeals of closures have been replaced, though with considerable reduction in activity, by administrative appeals, to reconsideration. With this change in appeal avenues, the appeal rate for closures *at any forum*—to hearings into 1990 and to reconsideration from mid-1990—has decreased to just under 15 percent in 1997. Of course, reconsideration orders may be appealed, and many are. Thus, the reconsideration process, by itself, does not guarantee that all claimants and employers will proceed through fewer levels of determination to reach a final arrangement of benefits, though it does deliver faster decisions.

Text Table 4 also shows a decline in average PPD dollars awarded per PPD claim, following passage of HB 2900. Although this bill increased scheduled benefits, its main thrust was toward implementation of standards and reshaping the appeals processes. Those provisions, along with increased attention to safety, led to a drop in average degrees awarded. By 1992, a large increase in scheduled benefits for injuries from May 1990 onward had come into play, and in 1993, average PPD benefits climbed to \$6,034 per PPD claim, compared to \$5,852 for 1987 PPD claims. Further benefit increases have assured a rising trend for PPD awards, currently at \$6,964 per PPD claim, despite degree awards that continued to decline with the passage of SB 1197 and SB 369. Again, these dollar figures are near fully developed costs of PPD benefits per PPD claim, excluding CDA settlement amounts.

Text Table 5. Scheduled PPD claims by year of last award

Year of last scheduled award	Claims	Mean scheduled degrees	Mean scheduled dollars
1986	5,733	32.5	\$3,300
1987	6,577	36.1	\$3,939
1988	6,584	33.6	\$3,898
1989	6,530	28.4	\$3,623
1990	7,345	27.6	\$3,760
1991	5,801	23.5	\$4,280
1992	5,604	20.8	\$4,969
1993	5,509	20.0	\$5,313
1994	5,662	18.8	\$5,513
1995	5,972	19.0	\$6,059
1996	5,910	17.7	\$6,154
1997	5,392	17.5	\$6,702

Note: Degrees and dollars are summed for all scheduled conditions rated for a claim.

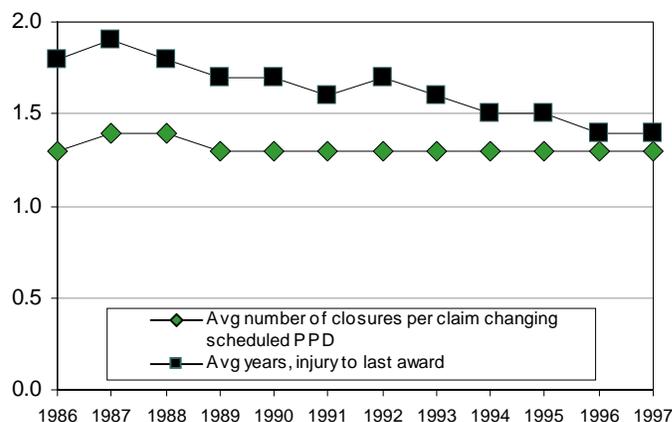
Scheduled awards. Text Table 5 provides data on PPD claims with scheduled awards, by the year of the last scheduled award. Again, counts of PPD claims by year of last award are rolling counts, due to the possibility of future awards for later years' claims, especially. As a measure of the number of claims with scheduled awards, however, data in this table are superior to Text Table 1, which shows awards made only at the first arrangement or grant of PPD benefits and excludes subsequent arrangements of PPD that may have included the first award of scheduled benefits for a given claim. Claims with scheduled PPD reached a height of 7,345 in 1990,

declined sharply to 5,801 in 1991, and then bumped around until dropping about 10 percent to 5,392 in 1997.

Average degrees per scheduled claim has plunged from 36.1 in 1987 to 17.5 currently. Almost as much of this reduction occurred between 1987 and 1990, due to the effects of HB 2900, as after 1990, under SB 1197. A small upswing in average degrees in 1995 was followed by a resumption of the downward trend in 1996, with a further small decrease the next year. The 8.5 degree drop in average degrees under HB 2900 can be attributed to changes in appeals processes, especially standardization of rating practices, and increased attention to safety. These factors, plus the legalization of the CDA and the codification of "medical evidence based on objective findings," contributed to further reductions following passage of SB 1197. Amendments to "major contributing cause" under SB 369 have probably contributed to the decline in average awards, as well.

The doubling of scheduled benefits under SB 1197 led quickly to increased average scheduled dollar awards for claims with scheduled PPD, despite the continuing decline in average scheduled degrees. The legislature has increased benefits regularly thereafter. Thus, the average scheduled award of \$6,702 for 1997 claims is substantially higher than the average \$3,939 awarded for 1987 scheduled claims.

Figure 6. Average duration and number of closures for scheduled PPD claims



Changes in the law regarding appeals processes and aggravations have had little effect upon the average number of closures modifying scheduled PPD benefits, which has hovered around 1.3 closures per claim with scheduled permanent disability (see Figure 6). However, if not for CDAs replacing some PPD determinations, the

average number of closures might have increased after SB 1197, to as much as 1.5 closures per scheduled claim.¹⁸ Figure 6 does show a change in the average number of years from injury to last modification of scheduled PPD, from 1.9 years in 1987 to 1.7 under HB 2900, thence to 1.5 years under SB 1197, which mandated administrative reconsideration prior to formal hearing, and 1.4 years under SB 369, which shortened time lines for reconsideration proceedings. SB 1197 also legalized CDAs, and orders approving CDAs are not included in the calculation of this statistic, either.

Text Table 6. Unscheduled PPD claims by year of last award

Year of last unscheduled award	Claims	Mean unscheduled degrees	Mean unscheduled dollars
1986	6,008	67.5	\$6,527
1987	8,234	69.4	\$6,783
1988	8,020	68.0	\$6,711
1989	8,051	65.2	\$6,492
1990	8,984	63.6	\$6,336
1991	5,684	57.3	\$5,710
1992	5,077	55.5	\$5,547
1993	4,874	57.9	\$5,944
1994	4,813	55.9	\$5,967
1995	4,591	53.0	\$5,939
1996	4,324	52.2	\$6,153
1997	3,654	50.7	\$6,517

Unscheduled awards. Text Table 6 provides data on unscheduled PPD claims, by the year of the last unscheduled award. Again, counts of PPD claims are subject to update, due to the possibility of future awards for later years' claims, especially. As a measure of the number of claims with unscheduled awards, however, data in this table are superior to Text Table 1, which shows awards made only at the first arrangement or grant of PPD benefits. Claims with unscheduled PPD reached a height of 8,984 in 1990, plummeted to 5,684 in 1991, and then declined at a relatively steady pace until falling about 15 percent to 3,654 in 1997.

Average degrees per unscheduled claim have dropped from 69.4 degrees (almost 22 percent disability) in 1987

to 50.7 (about 16 percent disability) currently. Most of this reduction occurred after 1990. A small upswing in average degrees in the first half of the 1990s may be attributed to increased awards due to higher unemployment rates and the Supreme Court's *England* decision, which temporarily returned the law to benefits reflecting age, education, and adaptability regardless of return-to-work status. Factors contributing to the reduction in average unscheduled degrees include changes in appeals processes and standards for rating disabilities, statutory changes in the definition of "earnings capacity," increased attention to safety, legalization of the CDA, and a strong economy throughout much of this decade that has probably made return to work easier. Other possible influences are increased emphasis upon return to work, such as through the Employer-at-Injury Program; the revised definition of "attending physician," which restricted participation by chiropractors; and the "major contributing cause" doctrine as amended by SB 369, which may lead to a lower PPD award when an injured worker has a pre-existing condition.

Text Table 6 also shows that the average unscheduled dollar award for unscheduled PPD claims peaked at \$6,783 in 1987. The current figure of \$6,517 is still below that high point, despite several benefit increases. The 1991 legislature instituted a tiered structure of benefits, directing most of the expansion in unscheduled benefits toward the most severe injuries. SB 369 broadened the interpretation of severe injury, and also raised benefits for the less severe unscheduled PPD claims, the vast majority, just enough to keep up with current rates of inflation. The departmental study *Oregon Permanent Partial Disability Benefits: Historical Trends and Interstate Comparisons*, in progress at press time, provides a detailed discussion of how benefits for the lowest tier of unscheduled PPD have lagged behind wage growth, losing more than one quarter of their value in 1981 dollars. Lower tier benefits established for 1992 injuries were just 3 percent higher than the benefit level set in 1981, and subsequent increases did not consider the prior loss in purchasing power. The planned study on return to work may include analysis of the extent to which PPD benefits make up for lost wages.

¹⁸ Estimated for 1997 from the 60 percent of settled disabling claims for scheduled body parts, assuming a grant of PPD or one more closure changing PPD; and 60 percent of CDAs with no closure added to the denominator of scheduled PPD claims.

Text Table 7. Distribution of claims by year of last unscheduled PPD award, by degree tier

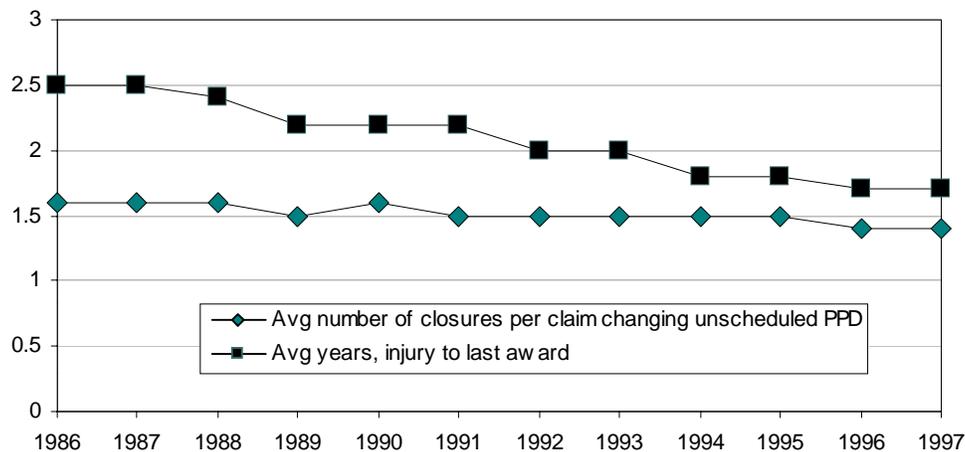
Year	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Total claims	6,008	8,234	8,020	8,051	8,984	5,684	5,077	4,874	4,813	4,591	4,324	3,654
High-tier claims	291	437	406	427	372	175	113	106	79	65	69	42
% high-tier claims	4.8%	5.3%	5.1%	5.3%	4.1%	3.1%	2.2%	2.2%	1.6%	1.4%	1.6%	1.1%
Middle-tier claims	1,899	2,635	2,621	2,668	3,084	1,669	1,536	1,538	1,524	1,305	1,203	971
% middle-tier claims	31.6%	32.0%	32.7%	33.1%	34.3%	29.4%	30.3%	31.6%	31.7%	28.4%	27.8%	26.6%
Low-tier claims	3,818	5,162	4,993	4,956	5,528	3,840	3,428	3,230	3,210	3,221	3,052	2,641
% low-tier claims	63.5%	62.7%	62.3%	61.6%	61.5%	67.6%	67.5%	66.3%	66.7%	70.2%	70.6%	72.3%

Notes: High-tier claims have awards of greater than 160 degrees; low-tier claims, 64 degrees or less. Sum of percents may not equal 100 due to rounding.

Text Table 7 illustrates the effects of law changes, safety consciousness, and the economy upon degree awards, according to the current structure of benefit tiers. The growing percentage of low-tier claims, coupled with benefit increases directed away from less severe injuries, account for the slower growth in the average cost per claim of unscheduled PPD benefits. Over 5 percent of unscheduled PPD claims last awarded benefits in 1989 received 160 or more unscheduled degrees (equal to or

more than 50 percent disability), the current top tier. By 1997, only 1.1 percent of unscheduled PPD claims were top-tier claims. The middle tier, currently defined as claims with over 64 degrees up to 160 degrees (20 to 50 percent disability), also shows a decline, from over 34 percent of 1990 unscheduled PPD claims to under 27 percent of 1997. The lowest tier has increased from 61.5 percent of 1990 unscheduled PPD claims to 72.3 percent currently.

Figure 7. Average duration and number of closures for unscheduled PPD claims



Changes in the law regarding appeals processes and aggravations have had some effect upon the average number of closures per claim modifying unscheduled PPD benefits, from 1.6 closures prior to SB 1197 to 1.4 closures currently. On the other hand, if not for CDAs replacing some PPD determinations, the average number of closures might have held steady at 1.6 per unscheduled

claim,¹⁹ with reconsidered closures offsetting decreases in formal appeals and PPD on aggravation. Figure 7 also shows a change in the average number of years from injury to last modification of unscheduled PPD, from 2.5 years in 1987 to 2.2 under HB 2900, thence to 1.8 with the institution of mandatory reconsideration, and 1.7 years under SB 369, which shortened time lines for

¹⁹ Estimated for 1997 from the 40 percent of settled disabling claims for unscheduled body parts, assuming a grant of PPD or one more closure changing PPD; and 40 percent of CDAs with no closure added to the denominator of unscheduled PPD claims.

reconsideration proceedings. Again, SB 1197 also legalized CDAs, and orders approving CDAs are not included in the calculation of this statistic.

High-cost claims. Tables 10 through 20, located immediately after the text of this report, present extensive data on the average costs of PPD benefits (not including other indemnity, medical services, and CDA amounts) for various kinds of claim having a final arrangement of PPD benefits during the period 1986 through 1997. Some are quite expensive, but relatively rare. Following are highlights of PPD costs, primarily where the category has at least 100 PPD claims in a given year.

Sprains and strains are the most common nature of claim leading to PPD, but not the most costly (see Table 10). In 1997, PPD claims resulting from sprains and strains averaged \$6,079 in PPD benefits, compared to the overall average of \$6,964 in benefits for claims with the last award of PPD in 1997. Relatively common natures with above-average PPD costs in 1997 include multiple injuries, such as might occur in a transportation accident, at an average \$10,291, and amputations, at \$9,294.

PPD claims resulting from head injuries averaged \$11,387 in PPD benefits in 1997 (Table 11). Upper extremities, the body area most often injured in PPD claims, averaged \$6,603, while back injuries, at \$7,042, were slightly above the overall average of \$6,964 in benefits. Again, these are the body parts identified as injured at the time of injury, and not always those for which permanent impairment was found and an award for disability determined.

Currently, contact with objects, such as struck by or caught in accidents, is the most frequent event leading to a PPD claim, but the average \$6,725 PPD benefits for these claims in 1997 was below the overall average (see Table 12). Exposure to harmful substances or environments led to an average \$8,365 in PPD benefits, followed by \$7,835 for transportation accidents and \$7,796 for falls. Overexertion, at an average \$6,895, was near the overall average

Plants, trees (including logs), and vegetation was the most expensive source of injury leading to a PPD claim in 1997, averaging \$10,511 in PPD benefits (Table 13). Claims where machinery is the source of the PPD claim are common and expensive, at \$7,809, and the same may be said for structure and surface claims, usually involving falls, at \$7,745 currently. The most frequent source of PPD injury is bodily conditions or motion, but the

average \$6,238 in PPD benefits for these claims is below the overall average for PPD benefits.

Surprisingly, the industry with the most expensive PPD benefits in 1997, averaging \$8,536, was finance, insurance, and real estate—an industry with a couple hundred PPD claims annually and an average cost ordinarily near the bottom (see Table 14). Mining, usually the industry with the highest average PPD cost, was second in 1997 at \$8,263. Mining claims are few, but PPD incidence is high by any measure. Agriculture, forestry, and fishing, another industry with usually high average costs, was next at \$7,763, followed by manufacturing at \$7,518. Construction, heretofore at least 5 percent above the overall average, dropped to \$6,967 in 1997.

Foresters, loggers, and fishers are the occupational group usually having the most expensive PPD benefits, and 1997, at \$9,377, was no exception. Farm workers were next at \$7,992, and mechanics and repairers averaged \$7,747 in PPD benefits. Construction trades averaged \$7,570. By and large, injuries to blue collar workers tend to be more expensive, perhaps because of the hazards involved in the work (see Table 15).

Beginning in 1991, male claimants averaged noticeably higher PPD awards than females. In 1997, the averages were \$7,138 for males and \$6,539 dollars for females (Table 16). This disparity holds for both scheduled and unscheduled claims as well. Reasons for the development of this trend are not clear, especially since Oregon doesn't tie PPD benefits to workers' wages. Though males tend to dominate the blue collar work that typically results in higher-cost PPD, the relative equality in awards for males and females prior to 1991 lessens the likelihood of occupation as an explanation for differences in award by gender.

Average PPD awards by age group (Table 17) shows the expected distribution of generally higher awards for older workers. Occasionally, the youngest workers have high PPD awards, as in 1997, where claimants 17 and under averaged \$8,450 in benefits. Otherwise, the 1997 distribution was typical: the 18 to 24 group averaged \$6,238, with costs steadily increasing for each age range, up to \$8,645 per PPD claim for workers 65 and older. The average PPD dollars for the 35 to 44 age group routinely falls right near the overall average PPD cost.

Whether a claim ends by a Claim Disposition Agreement (CDA) yields perhaps the starkest contrast in average

PPD benefits. For claims with the final arrangement of benefits in 1997, those that settled via a CDA averaged \$10,207 in PPD benefits—exclusive of the CDA amount—compared to \$6,559 for non-CDA claims. Similarly wide disparities may be seen in every year since at least 1986 (CDAs for claims with last award prior to 1990 occurred in 1990 or later; see Table 18), strong evidence for the theory that the claims that settle are the more severe claims. Again, the legalization of CDAs in 1990 is an important factor behind the relatively slow growth, despite several benefit increases, in the average cost of PPD awards.

In general, higher costs for PPD benefits may be found for the relatively few claims occurring in rural counties, such as Wallowa, Curry, Union, and Morrow in 1997 (see Table 19). Coos and Douglas Counties, each with 2 percent of 1997 PPD claims, averaged \$8,210 and \$7,742, respectively. Urban counties such as Multnomah, which averaged \$6,600 in 1997, and Washington, at \$6,851, have been below the overall average. Injuries occurring out of state also result in expensive PPD costs, on average.

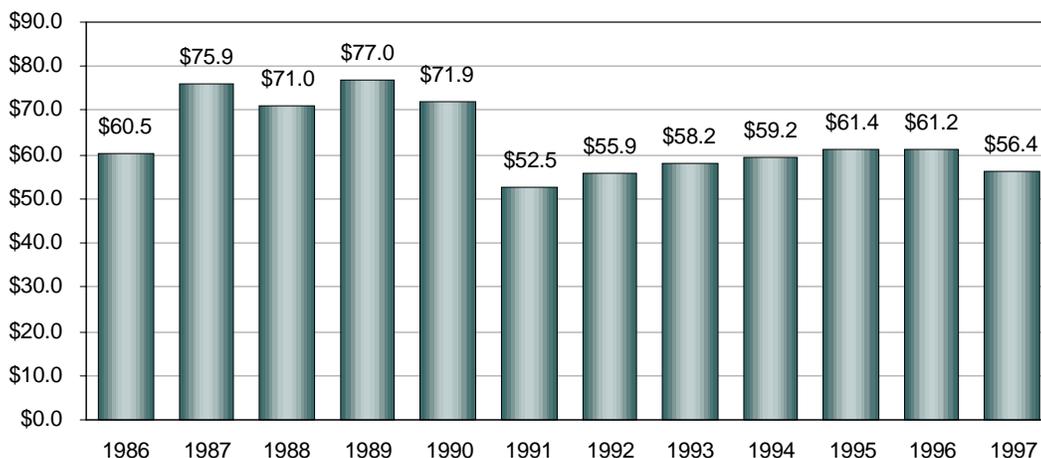
The average cost of PPD benefits varies by insurer type, as well (Table 20). Since 1994, SAIF has shown average costs very close to the overall average, at \$6,903 currently. Claims against non-complying employers, though never more than 1 percent in frequency, have been expensive, at \$8,279 currently. The Liberty Group averaged \$7,523 in PPD benefits in 1997, compared to \$7,082 for other private insurers and \$6,254 for self-

insured employers. Self-insurers have paid the lowest average PPD benefits since 1989. One theory behind lower costs for self-insurers is that these generally large organizations have a direct financial incentive—more visible than the periodic payment of premiums to an insurer—to manage claims in an effective and timely manner, rather than leaving the job to an insurer. Claims management may also vary by insurer: some sell themselves as more “aggressive” than others. However, the mix of hazardous employment, or the risks insured, is another important factor in understanding statistics on average benefits by insurer type.

System trends

This section covers net additional benefits awarded and the cost of PPD benefits, broken out by levels of determination and body part, and also provides estimates of claimant attorney fees on PPD awards and PPD that would have been awarded if not for CDAs. Data are tabulated according to the year of award (arrangement or determination of benefits). Net additional benefits is the total change in benefits awarded in a given year. For example, if a claimant has a grant of PPD worth \$5,000 in 1996, then the net additional benefit for that claim in 1996 is \$5,000. If the claimant has another award of \$2,500 in 1997, then the net additional benefit for 1997 is \$2,500 (not \$7,500, which would be the total dollars paid to the claimant, the statistical basis for analysis in the previous section). Finally, this section analyzes development of PPD claims, including an estimate of PPD awarded on aggravation, by accident year.

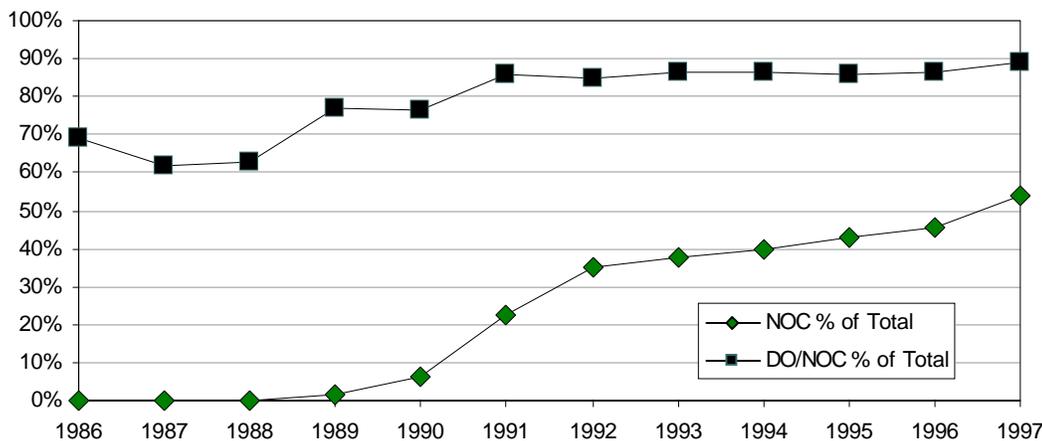
Figure 8. PPD dollars awarded (millions)



The trend for total PPD dollars is depicted in Figure 8. Fewer claims and reduced degree awards have led to lower benefit payouts, from a peak of \$77 million in 1989 to \$52.5 million in 1991.²⁰ Regular benefit increases by the legislature, beginning in 1992, led to steady growth in total PPD dollars awarded until 1996, and PPD dollars dropped 8 percent in 1997, to \$56.4 million. The many factors influencing claims frequency

and disability determinations have been discussed in detail above. In sum, downward trends are the product of increased emphasis upon safety, much of which was prescribed by statutory reform—in combination with other law changes that standardized the rating of PPD, discouraged formal litigation, placed restrictions on compensability and disability, provided new incentives for return to work, and legalized CDAs.

Figure 9. PPD dollars awarded by DO and NOC



Dollar awards by level of determination. Figure 9 illustrates the dramatic change over the last 12 years in the percentage of PPD dollars awarded by Determination Order (DO) and Notice of Closure (NOC), which together constitute the first level of determination. In 1987, the first level of determination accounted for 62 percent of PPD dollars. By 1989, with the rating standards well in place, the first level had jumped to 77 percent. Following passage of SB 1197, which tightened the applicability of rating standards, first-level awards made up around 86 percent of PPD dollars. Currently, the first level accounts for 89 percent of PPD dollars. The increased prominence of DOs and NOCs may be traced to law

amendments that standardized PPD rating, restricted formal litigation, and legalized CDAs.

The change in PPD awarded directly by insurers, through Notices of Closure, has been even more dramatic. Whereas no PPD was awarded by NOC prior to 1988, SB 1197 gave insurers expanded authority to rate PPD, and by 1997, NOCs awarded 54 percent of total PPD dollars. At press time, the department, with the concurrence of the Management-Labor Advisory Committee, had submitted a “legislative concept” to abolish the function of claim closure by the department and institute departmental audits of claim closures by insurers, for consideration by the 1999 legislature.

²⁰Prior to 1990’s SB 1197, there was no mechanism for insurers to recover PPD benefits paid out prior to a successful insurer appeal. Thus, insurers probably paid out more in PPD benefits than Figure 8 depicts; as much as \$1.2 million in 1989, for example. However, beginning in 1988, insurers were given authority under HB 2900 to offset other over payments of benefits against future awards, in practice, PPD awards especially. These offsets mean that compensation paid by insurers on orders awarding PPD has been lower than depicted in the figure.

Text Table 8. PPD dollars (in millions) awarded, by level

		Year of closure											
		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Total	DO	41.8	46.8	44.6	58.1	50.4	33.1	27.8	28.4	27.8	26.5	24.9	19.8
	NOC	.	.	0.0	1.1	4.4	11.9	19.6	21.8	23.5	26.2	27.9	30.4
	Recon	.	.	.	.	0.0	1.4	4.9	6.0	6.0	7.2	7.1	5.2
	Hearings	18.6	28.9	26.1	17.8	17.2	6.1	3.6	2.1	1.8	1.5	1.3	1.1
	B revw	-0.2	-0.2	0.1	-0.1	-0.1	-0.0	-0.0	-0.0	0.1	-0.0	-0.0	-0.1
	BOM	0.2	0.4	0.3	.	.	.	.	.	.	.	.	.
	Courts	0.0	0.0	.	.	.	-0.0	.	.	.	.	.	.
	Total	60.5	75.9	71.0	77.0	71.9	52.5	55.9	58.2	59.2	61.4	61.2	56.4
Scheduled	DO	12.3	14.4	14.3	15.7	15.3	16.3	14.6	14.8	14.9	15.3	14.4	11.8
	NOC	.	.	0.0	0.5	2.4	5.1	9.4	11.0	12.2	14.2	16.0	18.5
	Recon	.	.	.	.	0.0	0.6	2.7	3.1	3.5	5.0	4.9	3.7
	Hearings	3.7	5.9	5.4	4.3	4.5	1.8	1.8	0.9	0.8	0.6	0.6	0.6
	B revw	-0.0	-0.0	0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.1
	BOM	0.1	0.1	0.1	.	.	.	.	.	.	.	.	.
	Courts	.	0.0	.	.	.	.	.	.	.	.	.	.
	Total	16.0	20.4	19.8	20.5	22.1	23.8	28.4	29.8	31.4	35.1	35.9	34.4
Unscheduled	DO	29.5	32.4	30.3	42.4	35.1	16.7	13.2	13.5	12.9	11.2	10.5	8.0
	NOC	.	.	0.0	0.6	2.0	6.8	10.2	10.8	11.3	12.1	11.9	11.9
	Recon	.	.	.	.	0.0	0.8	2.3	2.8	2.5	2.2	2.2	1.5
	Hearings	15.0	23.0	20.7	13.5	12.7	4.4	1.8	1.2	1.0	0.9	0.7	0.5
	B revw	-0.2	-0.2	0.0	-0.0	-0.1	-0.0	0.0	-0.0	0.1	-0.0	-0.0	-0.0
	BOM	0.2	0.3	0.2	.	.	.	.	.	.	.	.	.
	Courts	0.0	0.0	.	.	.	-0.0	.	.	.	.	.	.
	Total	44.4	55.5	51.2	56.5	49.8	28.6	27.5	28.3	27.8	26.3	25.2	21.9

Notes: DO=Determination Order. NOC=Notice of Closure. B revw=Board review. BOM=Board Own Motion. '0.0' indicates amount less than \$50,000, and '-0.0' indicates amount greater than -\$50,000. '.' indicates 0.

Text Table 8 presents information on dollar awards by level of determination, broken out further by type of award. Determination Orders peaked at \$58.1 million in 1989, dropped by one third to \$33 million in 1991, and continued to decline thereafter, to \$19.8 million currently. Notices of Closure overtook DOs in 1996, reaching \$30.4 million in 1997. Reconsideration orders peaked at \$7.2 million in 1995, declined slightly in 1996, and then dropped to \$5.2 million in 1997. Awards at Hearings reached \$28.9 million in 1987 but fell thereafter, by over

\$8 million in 1989, the first full year of PPD standards.²¹ The next plunge, down \$11 million to \$6.1 million in PPD awarded in 1991, followed implementation of the reconsideration process, further standardization of rating, and legalization of CDAs. Currently, Hearings PPD totals \$1.1 million, about 4 percent of 1987 awards at Hearings.

Most of the reduction in PPD dollars at Hearings has come from unscheduled awards: \$23 million in 1987 down to just over \$0.5 million currently. Hearings, once

Text Table 9. Rate of PPD increase on reconsideration and hearing

		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Reconsideration	PPD cases						3,720	5,062	4,808	4,927	5,160	4,811	3,799
	Increases						1,249	2,194	2,412	2,247	2,476	2,329	1,734
	Rate						34%	43%	50%	46%	48%	48%	46%
Hearing	PPD cases	6,379	9,244	8,687	6,497	6,959	2,938	2,288	1,541	1,273	1,184	1,056	843
	Increases	5,511	8,238	7,522	5,664	6,366	2,440	1,637	1,022	777	674	570	417
	Rate	86%	89%	87%	87%	91%	83%	72%	66%	61%	57%	54%	49%
Total	PPD cases	6,379	9,244	8,687	6,497	6,959	6,658	7,350	6,349	6,200	6,344	5,867	4,642
	Increases	5,511	8,238	7,522	5,664	6,366	3,689	3,831	3,434	3,024	3,150	2,899	2,151
	Rate	86%	89%	87%	87%	91%	55%	52%	54%	49%	50%	49%	46%

Notes: Increases include initial grants. Cases involving PTD as an issue are excluded. Reconsideration includes substantive orders. Hearing includes stipulations and opinion and orders.

²¹ Activities at Hearings peaked in 1987 and 1988 largely in anticipation and then implementation of HB 2900's mandate that cases be processed faster.

accounting for over 40 percent of unscheduled awards, now contributes less than 3 percent. Throughout the years, higher levels of appeal ordered relatively few changes in PPD awards, though, of course, the effect on an individual award may be large. Note that HB 2900 prohibited Board Own Motion determination of PPD and made awards by the courts highly unlikely.

Text Table 9 shows the downward trend in the number and rate of PPD increases on appeal, at the two levels most likely to modify a PPD award. Decisions increasing PPD crested at 8,238 in 1987, declined noticeably under HB 2900, and then plummeted to 3,689 in the first full year of SB 1197. The 1997 total of 2,151 represents a 26 percent drop compared to the previous year. Most changes now occur at reconsideration, and the number of cases seeking a change in disability rating at Hearings has decreased dramatically.

Law changes have also resulted in substantially lower rates for increased benefits on appeal, but only after the passage of SB 1197. In 1991, 55 percent of decisions

considering PPD resulted in an increased award, compared to 91 percent the previous year. Most of the 1991 drop is attributable to the mandate for administrative reconsideration prior to hearing, coupled with tighter requirements for standardized ratings. Increase rates at Hearings have steadily declined since, the current rate being 49 percent, compared to 46 percent at reconsideration. A claimant appeal on PPD invariably results in an increased award, observers once said. Obviously, that is no longer the case.

A departmental study, *Appeals of Reconsiderations to Hearings* (March 1993), found several reasons for modification of reconsideration orders at Hearings, under SB 1197 law changes. One important amendment in that bill was that decisions could no longer find “clear and convincing evidence” that the worker’s disability was different from the standards’ prescription. The most frequent reasons uncovered for changes at Hearings, then, were (1) persuaded differently by the same evidence; (2) information not in the record at reconsideration used at Hearings; (3) misapplication of standards; and (4)

Text Table 10. Rate of carrier appeal of PPD decisions by departmental staff

		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
To recon- sideration	PPD cases						2,681	2,965	2,308	2,349	2,332	2,009	1,359
	Carrier appeals						169	150	214	205	227	203	186
	Rate						6%	5%	9%	9%	10%	10%	14%
To hearing	PPD cases	6,379	9,244	8,687	6,497	6,959	2,938	2,288	1,541	1,273	1,184	1,056	843
	Carrier appeals	0	96	41	29	19	20	58	94	111	137	127	125
	Rate	0%	1%	0%	0%	0%	1%	3%	6%	9%	12%	12%	15%
Total	PPD cases	6,379	9,244	8,687	6,497	6,959	5,619	5,253	3,849	3,622	3,516	3,065	2,202
	Carrier appeals	0	96	41	29	19	189	208	308	316	364	330	311
	Rate	0%	1%	0%	0%	0%	3%	4%	8%	9%	10%	11%	14%

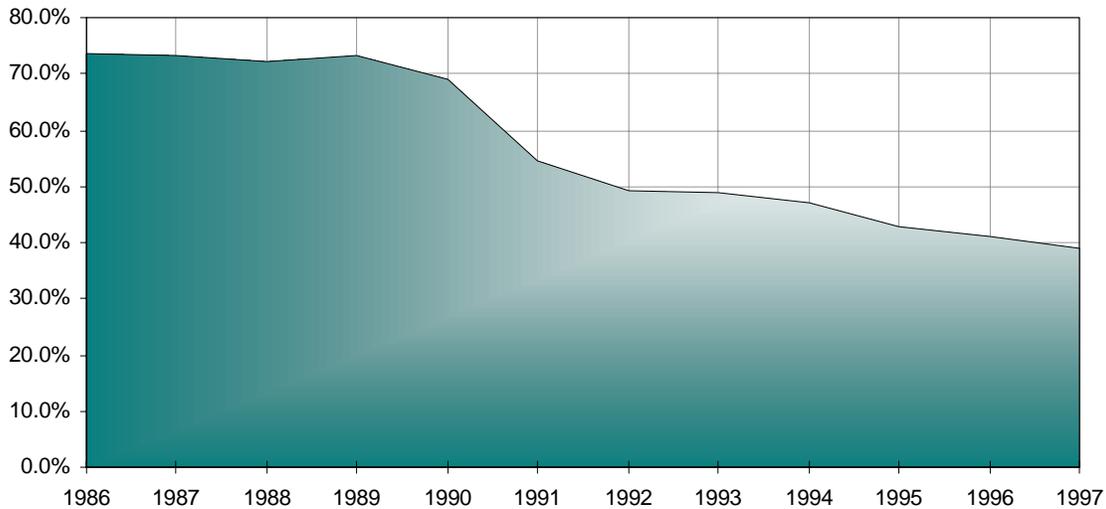
Notes: PPD cases at reconsideration include substantive determination orders citing PPD as an issue. Notices of Closure are excluded from reconsideration counts since a carrier cannot appeal its own Notice of Closure. Cases involving PTD as an issue are excluded.

different interpretation of standards. It is likely that all of these continue to account for changes at Hearings, with the exception of the second reason, because SB 369 tightened restrictions on evidence admissible at Hearings. Changes at reconsideration also occur because of these reasons, including medical information not available at closure, but the most frequent cause for modification is probably new evidence on impairment from the medical arbiter examination.

Another factor behind lower PPD dollars on appeal is the SB 1197 amendment that stays payment of benefits upon insurer appeal to Hearings, thereby giving carriers

an incentive to litigate. Prior to this law change, PPD payments made pending the outcome of an appeal could not be recovered if the carrier prevailed. Text Table 10 shows few carrier appeals prior to 1991 and a strong upward trend since, with 15 percent of PPD cases appealed to Hearings coming from insurers, currently. The stay of benefits may also affect an injured workers’ willingness to enter a CDA, as well. In addition, the reconsideration process, though not resulting in a stay upon carrier request, does feature shorter time lines that may make appeal attractive to insurers. Currently, 14 percent of PPD cases at reconsideration come on carrier appeal.

Figure 10. Unscheduled dollar awards as a percentage of total PPD



Text Table 8 showed that unscheduled awards peaked at \$56.5 million in 1989, fell by over \$20 million to \$28.6 million in 1991, and now stand at \$21.9 million in 1997, following a 13 percent drop from the previous year. Figure 10 illustrates the declining share of PPD dollars paid out as unscheduled benefits, from 73 percent prior to SB 1197 to 39 percent in 1997. For claims through

1997, the legislature had boosted lower-tier unscheduled benefits 30 percent over benefits for 1981 unscheduled claims, compared to a 320-percent raise in benefits for all scheduled claims. Currently, 72 percent of unscheduled PPD claims receive only lower-tier benefits (20 percent or lower disability).

Text Table 11. PPD degrees awarded, by level

Total degrees		Year of closure											
		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Scheduled	DO	116,712	123,856	116,054	116,397	107,087	77,787	55,491	52,725	48,678	47,135	40,834	30,174
	NOC	0	0	45	3,812	15,864	23,822	35,353	38,158	39,363	42,456	44,584	46,644
	Recon	0	0	0	0	54	3,640	11,616	11,775	11,686	15,054	14,225	9,674
	Hearings	36,859	55,362	47,891	35,405	34,376	13,240	7,919	3,603	2,875	2,053	1,779	1,652
	B revw	-280	-50	148	-391	-181	-130	4	-119	41	-45	-27	-279
	BOM	885	1,379	1,037	0	0	0	0	0	0	0	0	0
	Courts	0	15	0	0	0	0	0	0	0	0	0	0
	Total	154,176	180,563	165,175	155,223	157,200	118,359	110,382	106,141	102,643	106,653	101,395	87,865
Unscheduled	DO	298,658	326,379	304,258	425,442	352,006	167,270	131,910	130,606	119,947	97,391	86,465	59,859
	NOC	0	0	141	5,877	20,232	67,890	101,157	104,283	103,522	106,000	99,414	90,403
	Recon	0	0	0	0	22	7,854	22,598	27,499	23,435	19,525	18,384	12,147
	Hearings	154,358	234,073	208,977	135,621	127,700	43,624	18,207	11,778	9,343	7,919	5,874	4,625
	B revw	-2,194	-1,856	490	-109	-1,256	-58	179	-74	919	-272	16	-290
	BOM	2,394	4,123	2,344	0	0	0	0	0	0	0	0	0
	Courts	240	48	0	0	0	-32	0	0	0	0	0	0
	Total	453,456	562,767	516,209	566,831	498,704	286,549	274,052	274,093	257,166	230,563	210,154	166,745

Notes: DO=Determination Order. NOC=Notice of Closure. B revw=Board review. BOM=Board Own Motion. Data may not sum to totals due to rounding.

Degree awards by level of determination. Text Table 11 shows the changes in degree awards over the last 12 years, by award type and level of determination. Since the peak year of 1987, total degrees awarded for scheduled injuries have been halved, from 180,563 to 87,865 in 1997. Again, there are fewer claims with scheduled PPD awards, and average awards are currently half of what they were ten years previously. Outwardly, the entire drop in total scheduled degrees, and then some, occurred in Determination Orders (DOs) and decisions on PPD at Hearings. However, first-level determinations have largely shifted from DOs to Notices of Closures (NOCs), issued by insurers, and SB 1197 made administrative reconsideration the first level of appeal, prior to any formal appeal to Hearings. In relative terms, then, degree awards on first-level determinations have dropped less than awards on appeal, accounting for 68.6

percent of degree awards in 1987 and 87.4 percent currently. Law changes restricting litigation and legalizing CDAs have contributed to the declining importance of degrees awarded on appeal.

Total degrees for unscheduled injuries have been reduced by more than two-thirds, from 566,831 in 1989 to 166,745 currently. Here, claims with unscheduled PPD have been cut by more than half, while average degree awards have dropped by about one quarter. Much of the reduction in total degrees stems from the drop in unscheduled awards at Hearings. Although degree awards have decreased at the first level of determination, too, the relative change has been a dramatic shift away from awards on litigation. In 1987, 42 percent of unscheduled degrees were awarded on appeal, while the current figure is around 10 percent.

Text Table 12. Award-year distribution of unscheduled degrees, by level

Level by degree tier		Year											
		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Total	Up to 64 deg	324,606	390,167	350,618	391,177	354,302	214,127	207,377	210,733	198,304	181,637	165,305	134,574
	>64 - 160 deg	111,336	144,970	140,621	152,292	126,872	64,350	60,514	58,006	54,511	45,826	42,081	30,696
	> 160 deg	17,514	27,629	24,971	23,362	17,531	8,073	6,162	5,353	4,351	3,101	2,768	1,475
	Total	453,456	562,767	516,209	566,831	498,704	286,549	274,052	274,093	257,166	230,563	210,154	166,745
DO	Up To 64 deg	246,751	269,002	244,295	312,642	268,878	133,019	102,232	100,523	92,774	74,819	67,210	47,936
	>64 - 160 deg	49,939	54,641	56,926	102,816	75,370	30,792	26,139	26,809	24,635	20,348	17,783	11,021
	> 160 deg	1,968	2,736	3,037	9,984	7,758	3,459	3,539	3,274	2,538	2,224	1,473	902
	Total	298,658	326,379	304,258	425,442	352,006	167,270	131,910	130,606	119,947	97,391	86,465	59,859
NOC	Up to 64 deg	0	0	141	5,426	18,549	54,601	80,818	84,635	84,378	87,798	81,392	75,792
	>64 - 160 deg	0	0	0	451	1,510	12,320	19,650	18,627	18,139	17,757	17,354	14,291
	> 160 deg	0	0	0	0	173	970	690	1,021	1,005	445	669	320
	Total	0	0	141	5,877	20,232	67,890	101,157	104,283	103,522	106,000	99,414	90,403
Recon	Up to 64 deg	0	0	0	0	22	3,559	13,267	18,685	15,974	14,515	13,366	8,439
	>64 - 160 deg	0	0	0	0	0	3,827	8,422	8,235	6,939	4,731	4,630	3,539
	> 160 deg	0	0	0	0	0	467	909	579	522	278	387	170
	Total	0	0	0	0	22	7,854	22,598	27,499	23,435	19,525	18,384	12,147
Hearing	Up to 64 deg	78,224	121,566	105,142	73,003	67,833	23,466	11,242	6,916	4,701	4,795	3,311	2,745
	>64 - 160 deg	61,086	88,829	82,453	49,367	50,221	17,126	6,114	4,389	4,464	3,022	2,324	1,796
	> 160 deg	15,048	23,677	21,382	13,250	9,646	3,033	851	473	178	103	240	83
	Total	154,358	234,073	208,977	135,621	127,700	43,624	18,207	11,778	9,343	7,919	5,874	4,625
Board	Up to 64 deg	-434	-400	1,040	106	-980	-486	-182	-26	477	-291	26	-338
	>64 - 160 deg	216	1,451	1,242	-342	-229	285	189	-54	333	-32	-10	48
	> 160 deg	418	1,216	552	128	-46	144	173	6	109	51	0	0
	Total	200	2,267	2,834	-109	-1,256	-58	179	-74	919	-272	16	-290
Courts	Up to 64 deg	64	0	0	0	0	-32	0	0	0	0	0	0
	>64 - 160 deg	96	48	0	0	0	0	0	0	0	0	0	0
	> 160 deg	80	0	0	0	0	0	0	0	0	0	0	0
	Total	240	48	0	0	0	-32	0	0	0	0	0	0

Note: Degree tiers may not sum to total due to rounding.

The distribution of unscheduled degrees, according to the current tier structure, is shown in Text Table 12. Compensation for most degrees awarded has been at the lowest tier value, though more so currently than ten years ago. In 1997, about 81 percent of awarded degrees were paid at the low-tier value. Relatively few of the highest-value top-tier degrees are awarded: not quite 1 percent of the total, currently.

Prior to HB 2900, most degrees in what is now the high-value top tier were awarded upon appeal, at Hearings. By 1989, with the implementation of standards, Determination Orders were awarding degrees beyond the 160 threshold almost as much as Hearings decisions, and by 1991, Determination Orders took the lead, though higher degree awards plunged that year. The 1991 law change that actually instituted progressive degree values applied to claims with dates of injury from 1992 on. As the years rolled on, fewer and fewer unscheduled degrees were awarded, and top-tier degrees declined even more. Probably many severe claims have been settling by CDA, legalized by SB 1197. Currently, DOs still award most of the highest-value degrees, even though insurer Notices of Closure award more unscheduled degrees in total. Relatively few top-tier degrees are awarded upon appeal.

Awards by body part. The body part or area for which a PPD award is made is distinct from the body part injured as recorded on the Form 801 (first report), although there is much overlap. The PPD award compensates a permanent disability determined, after treatment and recuperation, for a specific body part or area. An injured worker may have several such awards or arrangements of compensation, both unscheduled and scheduled, over the life of a claim. The Form 801, by contrast, reports the body part or parts affected at the time of injury.

Table 21, located after the text, shows individual PPD awards, including reductions, for body parts at all levels of determination, at the most detailed level of classification.²² These are awards for specific body parts and areas, and an injured worker may have several such awards for the same or additional body parts or areas. In other words, there are more awards than there are claims with awards. Data on individual awards prior to 1992 are incomplete, primarily where the source of the award is on appeal, and thus not tabulated (see Appendix A). The department's *Workers' Compensation Claim*

Determinations includes a table presenting some of these older data, for first-level determinations only. The data in Table 21 show higher numbers of awards, and generally, lower average degree and dollar awards for each body part, compared to information on first-level determination. Averages are calculated excluding orders affirming awards. Again, Table 21 includes all levels of determination. As discussed above, more appeals by insurers yield determinations on appeal likelier to result in a reduction, and some reductions may in fact be technical body-part conversions where an award for a finger is rescinded in favor of an award for an arm, for example. These factors must be considered in interpreting the average award per body part. In essence, this section's statistics are based upon the number of orders modifying PPD awards.

The body part or area with the most awards continues to be the low back, although the number of such unscheduled awards, 2,124 in 1997, has declined by almost half since 1992. The second most frequent body part is scheduled awards for the knee, at 1,770 currently. Next comes unscheduled awards for the shoulder, at 1,375 in 1997. Unscheduled awards for the neck or cervical area have also declined by about half since 1992.

Currently, the most expensive scheduled award is for sight, averaging 34.3 degrees and \$13,109 for 1997 awards. For scheduled body parts with at least 100 awards, the leg is a costly disability, compensated on average at 20.2 degrees and \$7,345 currently. Although such injuries are rare, disabilities arising from injury to the central nervous system averaged \$33,171 in unscheduled benefits in 1997. Among common disabilities, awards for more than one area of the back (upper, middle, or lower) are the highest, at an average \$4,805 in 1997.

Claimant attorney fees and Claim Disposition Agreements. An attorney assisting an injured worker in gaining a higher PPD award on appeal is due a fee, paid out of the additional compensation. An attorney is not entitled to a fee when the appeal results in no change or an award decrease. The fee schedule is set by the Workers' Compensation Board in administrative rule. Through 1998, additional PPD awarded at reconsideration resulted in an attorney fee of up to 10 percent of the new award, to a maximum of \$2,800. For formal appeals, the rules permitted a higher attorney fee:

²²For determinations of unscheduled disability, the department's data system permits entry of only one body part or area per order.

Text Table 13. Effects of claimant attorney fees and CDAs on PPD awarded

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
PPD awards	\$60.5	\$75.9	\$71.0	\$77.0	\$71.9	\$52.5	\$55.9	\$58.2	\$59.2	\$61.4	\$61.2	\$56.4
Estimated attorney fees on PPD	\$4.6	\$7.0	\$6.5	\$4.4	\$4.4	\$1.9	\$1.7	\$1.4	\$1.5	\$1.5	\$1.4	\$1.2
Reconsideration					\$0.0	\$0.3	\$0.7	\$0.8	\$0.8	\$1.0	\$1.0	\$0.8
Hearings	\$4.5	\$6.9	\$6.4	\$4.4	\$4.3	\$1.5	\$1.0	\$0.6	\$0.6	\$0.5	\$0.4	\$0.4
Board	\$0.1	\$0.1	\$0.1	\$0.0	\$0.1	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0	\$0.0	\$0.0
Attorney % for PPD awards	7.6%	9.2%	9.2%	5.7%	6.1%	3.6%	3.0%	2.4%	2.5%	2.4%	2.3%	2.1%
Net PPD to injured workers	\$55.9	\$68.9	\$64.5	\$72.6	\$67.5	\$50.6	\$54.2	\$56.8	\$57.7	\$59.9	\$59.8	\$55.2
Estimated CDA \$ for release of PPD					\$1.6	\$9.6	\$12.9	\$13.6	\$14.0	\$14.6	\$14.5	\$13.7
Estimated attorney fees					\$0.2	\$1.3	\$1.9	\$2.1	\$2.2	\$2.2	\$2.2	\$1.9
Total PPD and PPD/CDA	\$60.5	\$75.9	\$71.0	\$77.0	\$73.5	\$62.1	\$68.8	\$71.8	\$73.2	\$76.0	\$75.7	\$70.1
Total attorney fees	\$4.6	\$7.0	\$6.5	\$4.4	\$4.6	\$3.2	\$3.6	\$3.5	\$3.7	\$3.7	\$3.6	\$3.1
Total attorney percent	7.6%	9.2%	9.2%	5.7%	6.3%	5.2%	5.2%	4.9%	5.1%	4.9%	4.8%	4.4%
Net PPD & PPD/CDA to injured wrkrs	\$55.9	\$68.9	\$64.5	\$72.6	\$68.9	\$58.9	\$65.2	\$68.3	\$69.5	\$72.3	\$72.1	\$67.0

Notes: Millions of current dollars. PPD awards are the additional dollars ordered in the indicated year. "PPD/CDA" is CDA benefits paid upon release of PPD benefits.

25 percent of additional compensation awarded, to a maximum of \$2,800 at Hearings, and \$3,800 in total fees awarded at Hearings and by the board. Departmental estimates of attorney fees payable for additional PPD awards are based upon the maximum permitted under the rules.

Text Table 13 shows a large decline in attorney fees payable for increased PPD awards. Total fees peaked at \$7 million in 1987, dropped to \$4.4 million by 1989, with the implementation of standards, and then fell to \$1.9 million in 1991, due to further tightening of standards, mandatory administrative reconsideration, and the legalization of CDAs. In 1997, attorney fees for additional PPD totaled \$1.2 million, or just over 2 percent of total PPD dollars awarded, compared to more than 9 percent of total awards 10 years earlier.

The most noteworthy change in the source of claimant attorney fees has been the big drop at Hearings. Clearly, the law changes have succeeded in their intent of reducing formal litigation and assuring that more of the PPD award is kept by the injured worker. Note, however, that defense attorney fees, paid by insurers, are another frictional cost to the system. These are generally about one-third again as high as total claimant attorney fees, though some of those legal costs cover responsibility disputes among insurers.

Since 1990, CDAs have certainly replaced some PPD awards. The department does not have data to determine

how much of the CDA dollar releases PPD benefits, nor the percentage of insurers' unpaid reserves set aside for PPD awards that is actually paid out in the CDA.²³ Using estimates of the breakdown of premium dollars, the department estimates that between 25 and 30 percent of the proceeds of a CDA release PPD benefits. In recent years, then, more than \$14 million dollars in annual CDA payouts may be thought of as compensation for permanent disability that is partial in nature.

For 1997, all indemnity for permanent partial disability, including PPD awards and estimated CDA proceeds upon release of PPD benefits, came to \$70.1 million, of which \$3.1 million was payable as claimant attorney fees. Because the maximum attorney fee for a CDA was set at the relatively high rate of 25 percent of the first \$12,500 and 10 percent of the remainder (compared to the 10 percent fee, capped at \$2,800, permitted at reconsideration), the percentage of claimant attorney fees on total benefits paid for permanent partial disability is higher than for PPD awards, at 4.4 percent currently. Even after factoring in CDAs (ignoring the question of how much on the dollar insurers are paying), injured workers as a whole retain better than 95 percent of benefits paid out for permanent partial disability, compared to less than 91 percent ten years ago.

PPD claim development. In this report we have looked at PPD in terms of claims granted PPD, counted by the year of first award; average awards per PPD claim, counted by the year of the last arrangement of benefits;

²³In general, the department does not collect data on insurer reserves or periodic payments of benefits. Insurers report total costs at closure.

and individual awards of PPD, counted by the year of determination. These methodologies present different pictures of PPD, equally valid depending upon the analytical purpose. Such constructs are necessary, moreover, because no one can say with precision how many claims in a given accident year will end up severe enough to warrant compensation for permanent disability. Claims may run their course, or develop, in a matter of days, or over many years. Insurance companies make guesses, through their reserving practices, whereby they set aside money to cover what they think their losses, the benefits paid to injured workers, will be. Because the department generally does not collect reserve data from insurers, we use historical data, similar to data presented in this report, to forecast future trends in PPD, such as the cost of benefits.

There is, however, at least one more way to look at PPD claims. Table 22 counts PPD claims by accident year, as of October 1998. Data for accident years after 1994 are not mature enough to present a full accounting of PPD claims. Nevertheless, a series of such snapshots of PPD claim development, though not included in this report, might be valuable for forecasting the PPD frequency for

the 27,922 disabling claims reported as accepted in 1997, for example, as well as the degrees of PPD to be awarded. Again, the goal of this might be to estimate ultimate benefit costs for 1997 claims and forecast future costs for PPD claims.

By itself, however, Table 22 provides more evidence for trends already noted: a reduction in total degrees of disability awarded for accident-year 1988 injuries, onward; lower average degree awards per claim, almost year by year; and fewer and fewer claims with unscheduled awards. Quite possibly, the data also show a developing trend of fewer claims with scheduled awards, for accident years 1996 on. Much of these reductions is due to increased attention to safety resulting in less severe injuries. The table also demonstrates that benefits are reaching injured workers faster, closer to the date of injury, and this is just one result from changes in the Workers' Compensation Law. To a large extent, this is due to increased safety consciousness leading to less severe injuries, but other law changes have had profound effects upon the compensation of permanent disability as well.

Figure 11. Percent of PPD degrees awarded within 2 years of injury

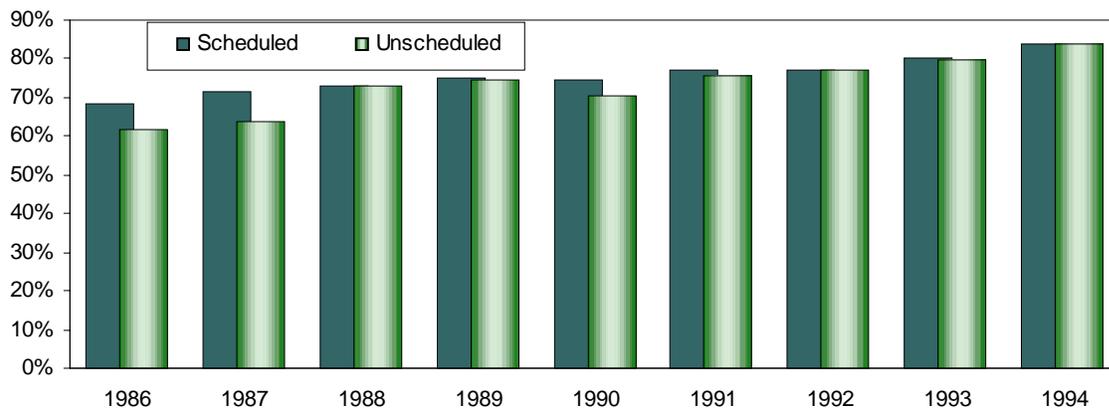
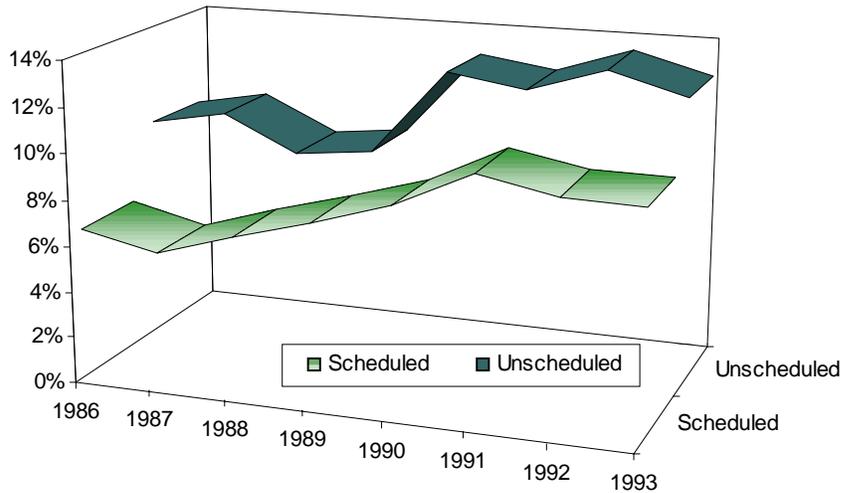


Figure 11 illustrates the trend of faster determinations of PPD awards, as measured by the percentage of benefits awarded within two years of injury. For injuries occurring in 1994, the latest year for which data on development of PPD claims is probably nearly final, 84 percent of both unscheduled and scheduled benefits were awarded within the first two years of injury. By con-

trast, for 1986 injuries, 68 percent of scheduled and 62 percent of unscheduled benefits were awarded within two years of injury. Clearly, quicker delivery of benefits results from fewer appeals of PPD determinations, as well as faster processing of appeals and heightened safety efforts. Changes in claims handling by insurers, including CDAs, have also played a role.

Figure 12. Estimated percent of PPD claims with additional awards on aggravation



Prompter decisions on benefits have occurred despite a relative increase in PPD claims with additional awards due on aggravation claims, as shown in Figure 12 (see Appendix A).²⁴ Claims on aggravation may be made within five years of the first closure of a disabling claim. Thus, an upswing in this measure would tend to lower the percentage of benefits awarded near to the date of injury, as aggravations are a significant source of PPD benefits: for 1993 injuries, about 14 percent of scheduled benefits and 16 percent of unscheduled (see Table 23). Restrictions on claims for aggravated injuries, under SB 1197, have reduced the number of those claims. However, aggravations that remain compensable appear more likely to result in additional awards of PPD, and those awards are occurring nearer to the date of injury.

Finally, there is little doubt that the exclusion of CDAs from these development statistics probably exaggerates the extent to which benefits are being delivered faster. CDAs, it cannot be said often enough, have greatly changed the way permanent disability is compensated in Oregon. There are a few aspects of PPD awards where the effect is measurable: for example, PPD claims are down even when CDAs are factored in. Thus, it is doubtful that CDAs are the primary factor behind reduced frequency of PPD awards. Other measures, such as declines in average degree awards, are less clearly interpreted, for there are large and unanswered questions about the effects of CDAs, other law changes, and safety initiatives.

²⁴Data are analyzed through 1993 only, because more recent years' data are undeveloped.

Tables

Table 1. PPD grants by nature of injury, Oregon, 1986-1997

Nature (%)	Year of PPD grant											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Misc injuries to bones, nerves	.	.	.	.	.	0	.	0	.	.	0	0
Dislocations	4	4	4	4	4	4	5	6	6	7	9	12
Fractures	10	9	10	9	10	12	11	11	12	12	14	14
Sprains, strains	56	56	54	57	55	52	53	53	50	49	43	35
Misc open wounds	.	.	.	.	.	.	.	.	.	0	1	1
Amputations	1	1	1	1	1	2	2	2	1	2	3	3
Cuts, lacerations	7	6	7	6	7	7	7	7	8	8	7	6
Abrasions, bruises, misc surface wounds	6	6	6	5	5	5	5	4	4	4	3	3
Burns	0	0	0	0	0	0	1	1	0	0	1	1
Concussions, intracranial injuries	0	0	0	0	0	0	0	0	0	0	0	0
Effects of environmental conditions	0	.	0	.	0	0	0	0	0	0	0	.
Multiple injuries	3	4	4	4	3	3	3	4	5	5	4	4
Other injuries	0	0	0	0	0	0	0	0	0	0	1	2
Misc systemic disorders	1	1	1	1	1	1	1	1	1	1	1	2
Carpal tunnel syndrome (CTS)	3	3	2	3	4	4	4	4	4	5	4	4
Diseases of the ear, hearing	1	1	1	1	2	2	2	1	1	1	1	1
Hernias	0	0	0	0	0	0	0	0	0	0	0	0
Musculoskeletal, connect tissue disease	3	3	3	3	4	3	4	5	5	5	5	7
Infectious and parasitic diseases	0	0	0	0	0	0	0	0	0	.	0	0
Neoplasms, tumors, cancer	0	0	0	0	0	.	0	.	0	.	0	.
Ill-defined conditions	0	0	1	0	0	0	0	0	0	0	0	0
Other conditions	0	1	1	0	0	0	0	0	0	0	0	0
Mult diseases, conditions	.	.	0	.	.	.	0	0	0	0	1	1
Mult injuries & diseases	.	.	.	0	0	.	0	0	0	0	1	2
Nonclassifiable	3	4	5	4	4	3	2	1	1	1	2	2
Total (N)	11,642	12,877	12,336	13,800	13,730	9,980	9,562	9,349	9,529	9,491	9,060	8,055

Note: '.' indicates no cases, and 0 indicates percentage less than 0.5.

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 2. PPD grants by part of body injured, Oregon, 1986-1997

Part (%)	Year of PPD grant											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Head	2	2	3	2	3	3	3	3	2	2	2	2
Neck and throat	2	2	2	2	2	2	3	3	3	3	2	2
Trunk, except back	9	8	9	9	9	10	10	10	11	10	10	11
Back	31	33	30	31	29	26	25	25	24	21	20	17
Upper extremities	23	22	24	23	25	27	27	27	29	29	31	32
Lower extremities	20	18	18	17	17	20	20	21	20	22	22	23
Body systems	1	1	1	1	0	0	0	0	0	0	0	0
Multiple body parts	12	12	12	13	12	10	11	11	11	11	11	12
Nonclassifiable	0	1	1	1	1	1	0	0	0	0	0	0
Total (N)	11,642	12,877	12,336	13,800	13,730	9,980	9,562	9,349	9,529	9,491	9,060	8,055

Notes: '.' indicates no cases, and 0 indicates percentage less than 0.5. Part of body injured is not necessarily the part(s) rated for PPD award.

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 3. PPD grants by event leading to injury, Oregon, 1986-1997

Event (%)	Year of PPD grant											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Contact with objects	22	21	22	19	20	22	21	21	22	23	24	25
Falls	20	19	19	19	19	19	20	20	20	20	20	19
Other bodily reaction, exertion	.	.	.	.	.	.	.	.	.	0	0	0
Bodily reaction, repetv motion	16	15	16	16	15	14	15	15	16	17	19	22
Overexertion	33	35	34	37	36	34	35	36	33	31	28	24
Harmful exposure	2	3	3	3	3	3	3	3	2	2	2	2
Transportation accidents	4	4	3	4	4	4	4	4	4	4	4	4
Fires and explosions	0	0	0	0	0	0	0	0	0	0	0	0
Assaults and violent acts	1	1	1	1	1	1	1	1	1	1	1	1
Other events	0	0	0	0	0	0	0	0	0	0	0	.
Nonclassifiable	2	3	2	1	2	3	2	2	2	2	2	3
Total (N)	11,642	12,877	12,336	13,800	13,730	9,980	9,562	9,349	9,529	9,491	9,060	8,055

Notes: '.' indicates no cases, and 0 indicates percentage less than 0.5.

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 4. PPD grants by source of injury, Oregon, 1986-1997

Source (%)	Year of PPD grant											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Chemicals	0	0	0	0	0	0	0	0	0	0	0	0
Containers	11	11	12	13	12	12	12	13	12	11	11	9
Furniture and fixtures	3	3	3	3	3	3	3	3	3	3	3	2
Machinery	9	9	9	9	9	10	9	10	10	10	10	10
Parts and materials	12	12	12	12	12	11	11	12	11	11	11	11
Animals, parasites, infectants	0	0	0	0	0	0	0	0	0	0	0	0
Food, animals, plants, minerals NEC	0	0	0	0	0	0	0	1	0	0	0	0
Minerals except fuel	0	0	0	0	0	0	0	0	0	0	0	0
Bodily conditions, motion	16	16	16	17	16	15	15	15	16	17	20	22
Other persons	5	5	5	5	5	4	4	4	4	4	3	3
Plants, trees, vegetation	3	2	2	2	2	2	2	2	2	1	1	1
Structures and surfaces	19	19	19	18	19	20	20	20	20	20	20	19
Tool, instruments, equipment	5	5	5	5	5	6	6	6	6	6	6	6
Vehicles	8	8	8	8	8	8	9	9	9	10	8	8
Other sources	3	3	3	3	3	4	4	3	3	3	3	2
Nonclassifiable	5	5	5	3	4	4	4	3	3	3	3	3
Total (N)	11,642	12,877	12,336	13,800	13,730	9,980	9,562	9,349	9,529	9,491	9,060	8,055

Notes: '.' indicates no cases, and 0 indicates percentage less than 0.5. NEC = not elsewhere classified.

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 5. PPD grants by industry, Oregon, 1986-1997

Industry (%)	Year of PPD grant											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Agriculture, forestry, fishing	5	4	4	5	4	4	4	4	4	4	4	4
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	8	8	8	8	9	10	10	9	10	11	11	13
Manufacturing	34	33	32	30	31	31	29	28	26	27	27	26
Transportation, utilities	7	7	7	7	7	7	8	8	8	9	9	9
Wholesale trade	5	5	5	5	5	6	5	5	6	5	5	5
Retail trade	14	14	15	16	15	15	15	15	16	15	15	15
Finance, insurance, real estate	2	2	2	2	2	2	2	2	2	2	2	2
Services	14	15	15	17	17	16	17	18	18	17	16	16
Public sector	10	9	10	10	9	9	10	11	10	10	10	10
Unknown	1	2	2	1	0	0	0	0	0	0	0	0
Total (N)	11,642	12,877	12,336	13,800	13,730	9,980	9,562	9,349	9,529	9,491	9,060	8,055

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 6. PPD grants by occupation, Oregon, 1986-1997

Occupation (%)	Year of PPD grant											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Professional & managerial	6	5	5	5	6	6	6	7	7	7	7	7
Technical, admin. support	5	6	5	6	6	6	7	8	7	7	7	7
Sales occupations	4	4	5	6	5	5	5	5	5	5	5	6
Service occupations	16	16	16	17	15	14	16	16	15	14	14	13
Farm labor & managers	4	4	4	4	3	3	4	4	4	3	3	3
Forester, loggers, fishers	7	6	6	5	4	5	4	4	3	3	3	3
Mechanics and repairers	6	6	6	6	6	7	7	7	7	7	7	7
Construction trades	6	6	6	6	7	8	8	7	8	8	9	10
Prec. products, mining	4	4	4	4	4	4	4	4	4	5	4	5
Operators, exc. transportation	15	15	15	14	15	15	14	14	13	14	14	14
Transportation operators	10	10	10	9	10	10	10	10	11	10	11	11
Labor, except farm	16	16	16	16	16	16	15	14	14	15	14	14
Other, unknown	1	1	2	2	2	2	1	1	1	1	1	1
Total (N)	11,642	12,877	12,336	13,800	13,730	9,980	9,562	9,349	9,529	9,491	9,060	8,055

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 7. Claim characteristics of PPD grants, Oregon, 1986-1997

	Year of PPD grant											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
PPD grants	11,642	12,877	12,336	13,800	13,730	9,980	9,562	9,349	9,529	9,491	9,060	8,055
Mean years, DOI to PPD	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.2	1.2	1.2	1.2
Mean wage at injury	\$339	\$337	\$336	\$340	\$357	\$379	\$388	\$397	\$410	\$424	\$446	\$468
Mean age at injury	37	37	37	38	38	39	39	39	39	39	40	41
Mean months tenure at injury	55	52	51	51	51	58	60	58	58	59	58	64
Percent males	70	69	69	66	66	69	68	67	68	69	70	71
Percent with CDA	2	3	5	7	11	16	18	18	17	16	13	10

Note: CDA counts are running tallies and will change as claims develop.

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 8. PPD grants by county of injury, Oregon, 1986-1997

Injury county (%)	Year of PPD grant											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Baker	0	0	0	0	1	0	0	1	0	0	0	0
Benton	2	2	2	2	2	1	2	2	2	1	2	2
Clackamas	7	7	7	7	7	7	6	6	7	7	6	7
Clatsop	1	1	1	1	1	1	1	1	1	1	1	1
Columbia	1	1	1	1	1	1	1	1	1	1	1	1
Coos	3	3	3	3	3	3	2	2	2	2	2	2
Crook	0	0	1	1	1	1	1	1	1	1	1	1
Curry	1	1	1	1	1	0	0	0	1	1	1	1
Deschutes	3	2	2	2	2	3	3	3	3	4	4	4
Douglas	4	4	4	4	4	4	4	3	3	3	2	2
Gilliam	0	0	0	0	0	0	0	0	0	0	0	0
Grant	0	0	0	0	0	0	0	0	0	0	0	0
Harney	0	0	0	0	0	0	0	0	0	0	0	0
Hood River	1	1	1	1	1	1	1	1	1	1	0	1
Jackson	4	4	4	5	4	5	4	5	5	5	5	4
Jefferson	1	1	0	0	0	0	0	1	1	1	1	1
Josephine	2	2	2	2	2	2	2	2	2	1	2	2
Klamath	2	1	1	2	2	2	2	2	2	2	2	2
Lake	0	0	0	0	0	0	0	0	0	0	0	0
Lane	10	10	10	10	10	10	10	10	10	11	10	10
Lincoln	2	2	1	1	1	1	1	1	1	1	1	1
Linn	3	4	4	3	3	3	3	3	3	3	3	3
Malheur	1	0	1	1	1	1	1	1	1	1	1	1
Marion	8	8	9	8	7	6	7	7	7	7	7	6
Morrow	1	0	0	0	0	0	0	0	0	0	0	0
Multnomah	21	21	20	20	22	21	21	21	21	20	21	23
Polk	1	1	1	1	1	1	1	1	1	1	1	1
Sherman	0	0	0	0	0	0	0	0	0	0	0	0
Tillamook	1	1	1	1	1	1	1	1	1	0	1	1
Umatilla	2	1	1	1	1	2	2	2	2	1	2	2
Union	1	0	1	1	1	1	1	1	1	1	1	1
Wallowa	0	0	0	0	0	0	0	0	0	0	0	0
Wasco	1	1	1	1	1	1	1	1	1	1	1	1
Washington	7	7	8	7	8	8	8	8	8	8	9	8
Wheeler	0	0	0	0	0	0	0	0	0	0	0	0
Yamhill	2	2	2	2	2	2	1	2	2	2	2	2
Overseas	0	0	0	.	0	.	0	0	0	0	.	.
Out-state	2	2	2	1	1	1	2	2	2	2	1	1
Unknown	6	6	8	10	10	10	10	9	10	9	10	9
Total (N)	11,642	12,877	12,336	13,800	13,730	9,980	9,562	9,349	9,529	9,491	9,060	8,055

Notes: '.' indicates no cases, and 0 indicates percentage less than 0.5.

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 9. PPD grants by insurer, Oregon, 1986-1997

Insurer (%)	Year of PPD grant											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Other private	35	29	25	24	25	24	24	22	22	21	22	23
SAIF	37	39	39	35	30	27	28	30	32	33	33	33
Liberty Group	11	16	20	23	25	28	27	27	26	25	25	23
Non-complying	1	1	1	1	1	1	1	1	1	1	1	1
Self	16	15	15	17	18	19	20	20	19	20	19	20
Total (N)	11,642	12,877	12,336	13,800	13,730	9,980	9,562	9,349	9,529	9,491	9,060	8,055

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 10. Average PPD dollars by nature of injury, Oregon, 1986-1997

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Misc injuries to bones, nerves	.	.	.	.	.	.	.	.	.	12,125	6,395	7,579
Dislocations	5,147	6,288	6,058	6,579	6,055	5,801	6,084	7,097	7,038	8,052	7,690	7,238
Fractures	5,003	5,679	5,269	5,309	5,118	5,406	6,409	7,370	6,690	7,516	7,047	7,508
Sprains, strains	5,677	6,156	6,084	5,770	5,751	5,299	5,372	5,680	5,708	5,851	6,011	6,079
Misc open wounds	.	.	.	.	.	.	.	.	.	2,440	4,002	3,811
Amputations	3,966	5,902	5,218	5,353	5,850	8,052	8,545	8,961	9,291	8,521	8,618	9,294
Cuts, lacerations	2,594	3,155	3,140	2,812	3,077	3,914	4,241	3,904	4,171	4,438	4,600	4,641
Abrasions, bruises, misc surface wounds	5,517	5,857	5,612	5,594	5,812	5,073	5,097	6,116	5,501	5,227	6,460	7,200
Burns	5,924	8,504	5,000	5,009	4,454	6,773	8,481	5,993	5,094	5,987	8,743	8,440
Concussions, intracranial injuries	6,173	8,020	8,090	6,041	7,033	6,483	7,529	7,639	6,765	6,418	10,033	19,106
Effects of environmental conditions	.	6,400	5,600	9,019	3,940	7,566	6,818	410	2,950	7,480	9,866	29,521
Multiple injuries	5,703	6,875	7,339	6,335	7,630	6,330	7,163	8,250	8,465	9,178	9,572	10,291
Other injuries	6,646	6,161	6,166	6,325	7,209	5,490	7,593	13,991	9,446	6,394	4,943	7,337
Misc systemic disorders	5,501	5,713	6,862	5,826	5,698	6,068	5,842	5,990	9,369	7,214	8,000	9,212
Carpal tunnel syndrome (CTS)	3,181	4,298	4,956	4,252	4,539	4,314	5,671	5,800	6,115	6,574	6,680	7,119
Diseases of the ear, hearing	4,080	3,268	3,687	4,344	4,297	6,095	5,592	5,653	6,893	7,204	8,583	8,070
Hernias	7,388	8,553	5,675	3,928	5,452	6,935	5,958	5,629	5,664	5,710	4,607	6,812
Musculoskeletal, connect tissue disease	4,562	5,386	5,742	4,983	4,452	4,631	4,767	5,075	5,892	5,676	6,156	6,346
Infectious and parasitic diseases	2,800	7,221	4,800	6,613	7,816	.	2,880	6,834	.	10,631	10,901	31,163
Neoplasms, tumors, cancer	30	1,363	2,538	957	2,183	.	10,523	6,075	3,327	.	9,852	.
Ill-defined conditions	2,456	3,905	4,379	4,680	4,843	5,417	3,864	7,023	6,685	9,377	6,683	6,557
Other conditions	6,861	5,730	6,024	6,953	7,277	10,248	6,387	6,965	6,501	10,389	6,126	13,095
Multiple diseases, conditions	.	.	.	13,600	.	.	.	1,412	4,388	8,562	6,934	8,945
Multiple injuries & diseases	.	.	.	16,000	22,328	.	19,860	.	4,731	6,844	8,336	9,729
Nonclassifiable	6,891	6,489	6,749	7,482	7,683	6,568	7,146	7,623	8,590	9,942	6,242	7,649
Total	5,264	5,852	5,804	5,587	5,586	5,337	5,600	6,034	6,055	6,402	6,550	6,964

Note: '.' indicates no claims.

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 11. Average PPD dollars by part of body injured, Oregon, 1986-1997

Part	Year of last award											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Head	5,341	6,032	5,852	5,876	5,678	6,820	7,070	7,825	7,906	7,741	9,543	11,387
Neck and throat	5,991	6,466	6,382	5,904	5,876	5,718	5,878	8,212	6,347	8,918	7,178	6,668
Trunk, excluding back	6,931	7,027	6,871	6,727	6,557	5,785	5,896	5,951	6,081	6,008	5,865	6,400
Back	6,667	6,943	6,935	6,636	6,532	6,033	5,966	6,460	6,402	6,570	6,990	7,042
Upper extremities	3,326	4,001	3,998	3,971	4,061	4,506	4,979	5,130	5,376	5,670	5,913	6,603
Lower extremities	3,841	4,535	4,450	4,015	4,191	4,371	4,972	5,293	5,375	6,080	6,089	6,286
Body systems	6,179	6,350	6,859	6,887	7,728	7,890	8,392	8,324	13,375	9,445	10,205	14,431
Multiple body parts	6,563	7,063	7,133	6,765	6,953	6,122	6,477	7,558	7,478	7,656	8,076	8,735
Nonclassifiable	6,158	6,923	6,867	6,960	7,205	6,945	6,951	7,717	7,867	18,764	7,542	4,706
Total	5,264	5,852	5,804	5,587	5,586	5,337	5,600	6,034	6,055	6,402	6,550	6,964

Note: Part of body injured is not necessarily the part(s) rated for PPD award.

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 12. Average PPD dollars by event leading to injury, Oregon, 1986-1997

Event	Year of last award											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Contact with objects	4,023	4,706	4,483	4,473	4,587	4,897	5,515	5,665	5,514	6,078	6,038	6,725
Falls	5,881	6,514	6,401	6,167	6,329	5,576	5,965	6,896	6,594	6,861	7,179	7,796
Other bodily reaction, exertion	.	.	.	.	.	.	.	.	.	2,969	3,377	10,042
Bodily reaction, repetv motion	4,243	5,024	5,282	4,913	5,001	4,895	5,055	5,309	5,538	5,871	5,895	6,132
Overexertion	6,077	6,364	6,355	6,019	5,944	5,520	5,516	5,917	6,101	6,352	6,623	6,895
Harmful exposure	5,240	5,431	4,922	5,032	5,076	6,456	6,181	5,636	6,876	7,076	8,251	8,365
Transportation accidents	6,596	7,145	7,131	6,592	5,990	5,651	6,400	7,581	7,095	7,450	7,887	7,835
Fires and explosions	6,654	4,871	5,845	9,086	7,980	5,733	6,712	8,379	7,546	4,172	7,955	12,390
Assaults and violent acts	4,614	5,723	5,584	5,308	4,655	4,301	5,255	6,645	5,591	5,796	5,965	6,001
Other events	7,220	6,253	9,066	10,656	11,547	7,680	10,967	5,151	12,522	6,293	9,410	7,170
Nonclassifiable	5,554	6,326	6,640	7,030	6,260	5,846	6,084	5,723	6,854	8,400	7,081	7,667
Total	5,264	5,852	5,804	5,587	5,586	5,337	5,600	6,034	6,055	6,402	6,550	6,964

Note: '.' indicates no claims.

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 13. Average PPD dollars by source of injury, Oregon, 1986-1997

Source	Year of last award											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Chemicals	5,595	5,601	4,887	4,942	5,643	4,876	5,661	5,711	7,699	6,173	7,121	6,479
Containers	5,835	6,163	6,081	6,153	5,881	5,399	5,382	5,851	6,050	6,081	6,230	6,423
Furniture and fixtures	5,371	5,685	5,780	5,581	6,067	4,581	4,760	5,483	5,709	5,980	6,189	5,897
Machinery	4,446	5,184	4,926	4,803	5,112	5,561	5,662	5,944	6,319	7,011	7,028	7,809
Parts and materials	5,500	5,894	5,875	5,472	5,219	5,315	5,563	5,833	5,698	6,124	6,229	6,665
Animals, parasites, infectants	5,162	5,886	6,074	7,005	4,206	4,563	4,492	5,507	7,093	6,324	6,487	7,718
Food, animals, plants, minerals nec	4,998	6,165	5,541	5,178	6,083	4,709	3,972	6,440	6,022	6,995	4,757	5,393
Minerals exc. fuel	6,440	6,172	6,574	6,550	7,336	6,025	6,854	5,899	7,225	7,510	5,886	6,142
Bodily conditions, motion	4,311	5,066	5,355	4,981	5,057	4,983	5,090	5,332	5,564	5,904	5,922	6,238
Other persons	5,397	6,054	6,026	5,933	5,843	5,130	5,418	5,141	5,196	5,547	5,852	6,247
Plants, trees, vegetation	7,271	7,516	7,402	6,889	7,157	7,392	8,856	8,974	8,504	8,620	7,646	10,511
Structures and surfaces	5,710	6,442	6,255	6,062	6,206	5,489	5,850	6,840	6,453	6,802	7,172	7,745
Tool, instruments, equipment	4,147	4,731	4,589	4,341	4,673	4,574	5,168	5,345	5,321	5,441	5,218	6,400
Vehicles	5,790	6,415	6,369	5,750	5,636	5,375	6,177	6,735	6,278	6,805	7,369	7,229
Other sources	4,416	4,861	4,810	5,107	4,737	5,818	5,407	5,843	6,086	6,255	7,903	7,751
Nonclassifiable	5,648	5,997	6,073	6,629	6,138	5,722	5,769	5,765	6,701	7,893	7,018	7,328
Total	5,264	5,852	5,804	5,587	5,586	5,337	5,600	6,034	6,055	6,402	6,550	6,964

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 14. Average PPD dollars by industry, Oregon, 1986-1997

Industry	Year of last award											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Agriculture, forestry, fishing	5,626	6,202	6,505	6,493	6,611	6,496	6,132	7,943	7,114	7,521	7,334	7,763
Mining	6,541	7,235	8,353	8,080	6,236	7,580	7,000	10,123	8,391	10,150	7,202	8,263
Construction	5,690	6,769	6,810	6,139	5,885	5,659	6,136	6,828	6,604	7,012	7,235	6,967
Manufacturing	5,200	5,683	5,669	5,434	5,389	5,505	5,944	6,303	6,180	6,836	6,767	7,518
Transportation, utilities	5,876	6,814	6,438	5,864	5,962	5,433	5,950	6,312	6,356	6,489	6,494	7,266
Wholesale trade	5,007	5,564	5,830	5,230	5,115	5,169	5,142	5,781	5,933	5,786	6,265	7,319
Retail trade	5,070	5,564	5,397	5,491	5,445	4,933	5,201	5,589	5,722	5,922	6,235	6,610
Finance, insurance, real estate	4,709	5,791	5,977	5,038	5,687	4,748	5,017	5,201	5,395	6,506	5,530	8,536
Services	5,241	5,695	5,704	5,590	5,626	5,104	5,275	5,485	5,702	5,843	6,366	6,363
Public sector	5,009	5,635	5,262	5,227	5,383	4,955	5,049	5,396	5,769	5,713	6,014	5,944
Unknown	5,354	5,362	5,892	6,710	7,231	7,407	4,564	5,138	7,429	76,329	7,338	7,927
Total	5,264	5,852	5,804	5,587	5,586	5,337	5,600	6,034	6,055	6,402	6,550	6,964

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 15. Average PPD dollars by occupation, Oregon, 1986-1997

Occupation	Year of last award											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Professional & managerial	4,973	5,659	5,292	4,902	4,756	4,382	5,035	4,795	5,168	5,605	6,014	6,386
Technical, admin. support	4,825	5,172	5,259	5,006	5,169	4,460	4,375	5,279	5,540	5,448	5,653	6,194
Sales occupations	4,765	5,395	5,516	5,377	5,520	4,813	5,005	5,641	5,819	5,990	6,064	6,397
Service occupations	5,374	5,907	5,779	5,890	5,874	5,347	5,354	5,650	5,657	5,794	6,220	6,329
Farm labor & managers	5,130	5,948	6,334	6,302	6,438	6,158	6,155	7,601	6,653	7,473	7,081	7,992
Forester, loggers, fishers	5,602	6,027	6,047	6,521	7,018	6,531	7,829	8,050	8,503	9,301	7,280	9,377
Mechanics and repairers	5,044	5,810	5,667	5,090	5,468	5,116	5,788	6,159	5,943	6,058	6,694	7,747
Construction trades	5,580	6,201	6,221	5,632	5,635	5,647	5,555	6,516	6,432	6,511	7,126	7,570
Precision products, mining	5,045	5,379	5,479	5,303	5,133	4,865	4,986	5,842	5,968	5,630	6,104	7,137
Operators, exc. transportation	4,890	5,607	5,625	5,145	5,182	5,199	5,673	5,762	5,790	6,449	6,595	7,179
Transportation operators	6,002	6,846	6,649	5,928	6,088	5,673	5,948	6,483	6,495	6,951	7,098	6,984
Labor, except farm	5,221	5,643	5,534	5,669	5,310	5,526	5,842	6,213	6,238	6,540	6,574	6,692
Other, unknown	6,361	6,744	6,660	6,137	5,874	6,355	5,510	6,581	6,324	13,079	9,130	6,471
Total	5,264	5,852	5,804	5,587	5,586	5,337	5,600	6,034	6,055	6,402	6,550	6,964

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 16. Average PPD dollars by gender, Oregon, 1986-1997

Gender	Year of last award											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Unknown	4,351	6,266	6,597	7,007	7,363	7,474	.	.	.	.	1,899	.
Female	5,164	5,737	5,716	5,648	5,689	5,136	5,130	5,510	5,549	5,944	6,035	6,539
Male	5,307	5,899	5,830	5,536	5,512	5,417	5,824	6,290	6,298	6,608	6,773	7,138
Total	5,264	5,852	5,804	5,587	5,586	5,337	5,600	6,034	6,055	6,402	6,550	6,964

Note: '.' indicates no claims.

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 17. Average PPD dollars by age at injury, Oregon, 1986-1997

Age at injury	Year of last award											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
17 & under	2,576	3,156	3,693	4,050	3,202	3,880	3,190	8,147	7,008	4,482	4,414	8,450
18 to 24	4,334	4,544	4,545	4,449	4,624	4,893	5,212	4,871	5,174	4,914	5,576	6,238
25 to 34	4,749	5,237	5,240	5,114	5,094	4,995	5,248	5,687	5,500	6,306	6,065	6,515
35 to 44	5,220	5,740	5,814	5,619	5,612	5,221	5,352	6,150	6,170	6,362	6,564	6,997
45 to 54	6,330	7,015	6,824	6,382	6,328	5,869	5,944	6,163	6,394	6,853	6,981	7,039
55 to 64	6,730	8,286	7,699	7,044	6,809	6,031	7,112	7,226	7,218	7,080	7,476	8,004
65 & up	6,648	7,574	7,835	6,770	7,599	6,789	7,020	7,024	7,812	8,047	7,756	8,645
Unknown	4,491	6,354	6,640	6,494	6,724	7,213	4,255	7,112	2,891	6,982	7,082	5,241
Total	5,264	5,852	5,804	5,587	5,586	5,337	5,600	6,034	6,055	6,402	6,550	6,964

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 18. Average PPD dollars by CDA status, Oregon, 1986-1997

CDA status	Year of last award											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
No CDA	5,237	5,802	5,690	5,393	5,264	4,985	5,069	5,507	5,550	5,843	6,080	6,559
CDA	8,522	9,014	9,817	9,321	8,591	7,470	7,935	8,276	8,340	9,065	9,322	10,207
Total	5,264	5,852	5,804	5,587	5,586	5,337	5,600	6,034	6,055	6,402	6,550	6,964

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 19. Average PPD dollars by county of injury, Oregon, 1986-1997

Injury county	Year of last award											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Baker	10,484	11,564	8,919	7,197	6,987	7,851	6,679	7,222	6,565	7,789	7,023	7,852
Benton	4,845	5,980	5,574	5,782	6,106	5,369	5,660	6,324	5,042	5,834	5,697	6,416
Clackamas	4,770	5,700	5,272	5,293	5,107	4,685	5,338	5,814	5,833	6,047	6,751	7,142
Clatsop	4,610	5,696	6,404	5,257	5,728	5,353	5,486	5,897	6,504	5,904	6,343	6,995
Columbia	5,594	5,668	5,864	5,268	6,198	5,922	7,078	7,948	7,461	6,765	6,338	6,390
Coos	5,327	6,575	6,226	6,092	5,865	5,549	6,610	7,056	6,581	6,464	8,105	8,210
Crook	6,098	6,223	5,321	5,562	5,363	4,969	5,769	5,148	6,186	7,071	6,392	6,380
Curry	5,224	6,227	6,007	6,301	6,964	5,685	7,004	6,287	6,201	6,616	7,213	9,145
Deschutes	4,509	5,339	5,799	5,125	5,283	4,929	4,834	5,766	5,810	6,265	6,072	7,017
Douglas	5,874	6,239	6,256	5,805	6,203	6,019	5,548	6,776	6,586	6,760	6,375	7,742
Gilliam	5,375	4,818	5,760	5,352	5,532	7,088	4,963	5,152	4,585	5,217	5,034	6,068
Grant	4,301	5,236	7,608	5,695	7,045	4,684	9,475	6,984	6,758	7,379	6,318	7,902
Harney	5,702	4,734	5,257	6,537	5,757	6,510	5,168	6,421	8,278	5,596	9,258	6,954
Hood River	5,479	5,143	6,171	5,940	5,247	6,638	6,128	5,818	6,747	6,431	6,196	6,080
Jackson	5,591	5,478	6,020	5,989	5,834	5,292	6,194	5,647	6,463	6,687	6,959	7,260
Jefferson	5,007	5,460	6,862	5,558	6,516	4,177	6,504	5,740	7,217	7,046	7,136	5,787
Josephine	5,250	6,299	6,433	5,540	5,735	5,061	5,435	5,952	6,387	8,248	7,183	7,387
Klamath	4,878	5,891	5,780	5,830	5,106	5,168	5,255	7,294	6,669	6,660	7,489	7,479
Lake	6,261	6,411	5,270	6,738	5,287	6,975	7,452	5,021	5,078	6,003	5,849	6,396
Lane	5,075	5,795	5,758	5,243	5,670	5,517	5,736	6,148	6,182	6,508	6,744	7,020
Lincoln	5,859	6,605	6,274	5,767	5,724	6,213	7,056	6,000	6,439	6,367	6,746	7,505
Linn	5,420	6,458	5,732	5,971	5,860	5,526	5,822	6,658	5,809	6,908	7,467	7,101
Malheur	4,729	6,652	5,967	6,162	5,801	5,856	4,476	8,443	6,645	7,564	7,430	6,358
Marion	5,318	5,667	5,714	5,928	5,567	5,276	5,138	5,622	5,738	5,833	5,969	6,317
Morrow	4,368	5,980	6,146	6,763	5,694	5,737	5,690	7,241	4,324	8,146	8,639	8,473
Multnomah	5,170	5,643	5,558	5,110	5,123	4,996	5,240	5,744	5,652	6,003	6,076	6,600
Polk	5,297	5,537	5,406	6,138	5,762	5,108	5,640	5,857	5,584	5,582	6,272	5,943
Sherman	8,771	10,521	4,725	17,126	9,511	6,240	8,563	5,866	4,065	3,116	7,882	7,463
Tillamook	6,403	7,109	6,077	7,016	6,990	6,145	5,619	6,689	6,639	7,369	7,024	6,088
Umatilla	4,771	5,826	6,502	6,326	5,360	6,233	5,493	6,274	6,557	8,321	7,680	7,214
Union	5,085	4,745	5,219	5,246	4,691	5,416	6,451	5,670	5,931	7,347	6,402	8,915
Wallowa	4,366	6,338	6,311	6,932	4,785	6,408	5,200	6,875	8,850	6,966	9,165	12,574
Wasco	5,847	6,335	6,727	6,263	5,428	5,767	4,917	6,664	5,786	6,140	7,066	6,484
Washington	5,303	5,518	5,708	5,405	5,385	5,027	5,507	5,392	5,545	5,941	6,236	6,851
Wheeler	6,380	5,059	6,014	3,358	5,325	3,338	2,996	11,157	8,502	5,774	7,033	1,928
Yamhill	5,461	5,682	6,044	5,382	6,026	5,636	6,053	5,853	5,607	6,245	6,147	6,871
Overseas	.	750	3,200	21,600	7,585	6,400	1,280	2,288	62,138	.	8,535	.
Out-state	5,817	6,419	7,491	6,859	7,188	6,450	6,026	7,382	6,561	7,701	7,677	8,477
Unknown	4,961	5,832	5,522	5,698	5,841	5,509	5,791	6,170	6,726	6,762	6,534	7,189
Total	5,264	5,852	5,804	5,587	5,586	5,337	5,600	6,034	6,055	6,402	6,550	6,964

Note: '.' indicates no claims.

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 20. Average PPD dollars by insurer, Oregon, 1996-1997

Insurer	Year of last award											
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Other private	5,219	6,085	6,224	5,665	5,427	5,172	5,355	5,793	6,015	6,151	6,446	7,082
SAIF	5,696	6,289	6,081	6,214	6,551	5,934	5,851	6,331	5,974	6,485	6,639	6,903
Liberty Group	4,087	4,544	4,948	4,993	5,167	5,243	5,877	6,135	6,376	6,848	6,919	7,523
Non-complying	6,359	5,963	5,727	6,303	6,752	6,396	6,708	8,888	9,182	8,714	6,495	8,279
Self	4,952	5,405	5,316	4,811	4,484	4,749	5,087	5,556	5,634	5,877	6,051	6,254
Total	5,264	5,852	5,804	5,587	5,586	5,337	5,600	6,034	6,055	6,402	6,550	6,964

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 21. PPD awards by body part of award, Oregon, 1992-1997

Body part		1992			1993			1994			
		Number of awards	Average degree award	Average dollar award	Number of Awards	Average degree award	Average dollar award	Number of Awards	Average degree award	Average dollar award	
Scheduled	Hearing	244	15.1	\$4,125	208	15.5	\$3,973	156	16.9	\$4,595	
	Sight	92	32.2	\$8,542	74	30.1	\$8,146	83	30.9	\$9,881	
	Arm	1,146	16.9	\$4,086	1,268	16.5	\$4,508	1,274	15.8	\$4,810	
	Forearm	392	12.6	\$3,300	330	10.9	\$3,173	262	13.7	\$4,368	
	Wrist	1,527	10.3	\$2,620	1,367	9.3	\$2,689	1,473	9.0	\$2,781	
	Hand	572	15.2	\$4,057	512	15.9	\$4,659	542	15.4	\$4,853	
	Thumb	414	8.4	\$2,492	418	8.6	\$2,715	411	8.1	\$2,648	
	Index finger	303	6.1	\$1,851	311	6.6	\$2,073	344	6.4	\$2,103	
	Middle finger	272	4.9	\$1,464	229	4.9	\$1,536	252	4.4	\$1,455	
	Ring finger	189	2.1	\$615	156	2.2	\$693	150	2.1	\$696	
	Little finger	191	1.5	\$455	197	1.7	\$524	177	1.6	\$526	
	Hip	108	16.5	\$3,844	93	14.1	\$3,845	74	18.3	\$5,577	
	Leg	443	20.7	\$4,582	485	20.3	\$4,982	432	18.8	\$5,349	
	Thigh	53	14.8	\$3,519	34	5.3	\$1,761	27	16.6	\$4,597	
	Knee	2,005	12.6	\$3,365	1,991	13.3	\$3,805	1,898	12.8	\$3,939	
	Lower leg	111	11.9	\$2,651	72	11.4	\$2,480	54	9.5	\$2,703	
	Ankle/lower leg	558	11.9	\$3,202	568	11.1	\$3,245	586	11.4	\$3,433	
	Foot	278	8.8	\$2,088	318	8.1	\$2,206	333	9.4	\$2,722	
	Great toe	61	4.6	\$1,295	69	5.0	\$1,449	89	3.4	\$1,164	
	Other toes	104	1.0	\$295	58	1.0	\$264	62	0.8	\$277	
	Total	9,063	12.2	\$3,137	8,758	12.1	\$3,408	8,679	11.8	\$3,620	
Unscheduled	Brain	52	88.5	\$8,861	53	64.7	\$6,618	48	90.9	\$9,756	
	Auditory system	14	15.5	\$1,554	11	39.3	\$3,921	6	44.8	\$4,637	
	Visual system	4	20.2	\$2,020	2	24.0	\$2,475	3	5.3	\$638	
	Head	17	39.2	\$3,920	24	59.3	\$6,010	23	44.7	\$4,763	
	Neck	1,231	36.2	\$3,630	1,138	37.4	\$3,850	1,043	34.4	\$3,694	
	Abdomen	24	25.1	\$2,467	19	39.2	\$4,096	22	45.8	\$4,937	
	Groin	5	15.4	\$1,536	6	25.1	\$2,558	3	22.4	\$2,304	
	Back - multiple	234	45.4	\$4,530	229	41.4	\$4,268	279	45.7	\$5,024	
	Upper/mid back	191	26.7	\$2,680	211	23.7	\$2,464	193	20.3	\$2,221	
	Low back	4,129	36.1	\$3,617	3,976	37.4	\$3,876	3,562	37.8	\$4,084	
	Chest	10	19.8	\$1,984	5	10.9	\$1,169	0	0.0	0	
	Hip	66	33.2	\$3,338	43	43.2	\$4,397	50	43.5	\$4,549	
	Pelvis	18	62.6	\$6,262	18	75.2	\$9,337	21	68.6	\$7,376	
	Shoulder	1,403	34.4	\$3,443	1,394	35.5	\$3,654	1,444	35.4	\$3,788	
	Integumentary sys.	25	27.5	\$2,754	19	19.7	\$2,052	11	24.7	\$2,806	
	Circulatory system	0	0.0	0	2	17.6	\$1,760	3	24.5	\$2,748	
	Heart (only)	0	0.0	0	3	50.1	\$5,157	6	119.5	\$13,519	
	Excretory system	7	70.4	\$7,188	11	55.9	\$7,128	3	177.1	\$18,417	
	CNS - spine	8	97.6	\$9,760	10	131.8	\$13,161	12	98.7	\$15,794	
	Respiratory system	10	61.1	\$5,392	22	53.7	\$6,025	14	47.9	\$5,904	
	Other body system	41	20.5	\$2,061	44	33.9	\$3,444	36	37.5	\$4,464	
	Mental disorder	43	69.2	\$6,865	55	60.8	\$6,064	48	74.5	\$7,643	
	Other part/condition	21	22.6	\$2,265	18	35.4	\$3,679	8	18.0	\$1,974	
		Total	7,553	36.3	\$3,636	7,313	37.5	\$3,874	6,838	37.6	\$4,065

Continued

Table 21. PPD awards by body part of award, Oregon, 1992-1997 (cont.)

Body part		1995			1996			1997			
		Number of awards	Average degree award	Average dollar award	Number of awards	Average degree award	Average dollar award	Number of awards	Average degree award	Average dollar award	
Scheduled	Hearing	127	20.2	\$6,007	104	17.2	\$5,897	108	16.5	\$6,151	
	Sight	74	28.3	\$9,066	80	27.0	\$9,522	58	34.3	\$13,109	
	Arm	1,223	16.4	\$5,359	1,251	16.5	\$5,762	1,086	13.8	\$5,316	
	Forearm	280	12.1	\$4,057	249	10.8	\$3,882	197	12.9	\$4,929	
	Wrist	1,437	9.4	\$3,120	1,377	9.0	\$3,133	1,143	9.1	\$3,538	
	Hand	608	15.2	\$5,123	583	17.2	\$6,195	594	18.7	\$7,449	
	Thumb	395	9.2	\$3,139	449	8.0	\$3,011	425	8.4	\$3,502	
	Index finger	334	5.7	\$1,960	367	6.4	\$2,416	345	6.5	\$2,705	
	Middle finger	309	4.5	\$1,540	319	4.7	\$1,797	281	5.0	\$2,075	
	Ring finger	193	2.2	\$763	162	2.0	\$743	181	1.9	\$803	
	Little finger	188	1.7	\$577	201	1.6	\$609	204	1.4	\$579	
	Hip	84	13.0	\$4,313	90	14.9	\$5,183	47	10.8	\$4,132	
	Leg	477	20.2	\$6,350	394	16.5	\$5,676	283	20.2	\$7,345	
	Thigh	34	12.3	\$4,166	48	20.2	\$7,236	34	12.7	\$5,025	
	Knee	2,063	12.5	\$4,177	1,880	12.9	\$4,596	1,770	12.1	\$4,798	
	Lower leg	60	13.9	\$4,041	42	20.0	\$7,124	56	11.3	\$4,417	
	Ankle/lower leg	572	12.0	\$3,924	572	11.3	\$3,968	525	10.8	\$4,230	
	Foot	347	8.7	\$2,801	308	9.3	\$3,226	252	10.3	\$3,980	
	Great toe	92	4.2	\$1,442	83	4.1	\$1,523	56	3.0	\$1,267	
	Other toes	72	0.6	\$214	80	1.1	\$425	69	0.9	\$345	
	Total	8,969	11.9	\$3,914	8,639	11.7	\$4,161	7,714	11.4	\$4,460	
Unscheduled	Brain	49	84.6	\$10,380	66	80.1	\$10,244	43	57.8	\$7,526	
	Auditory system	5	10.9	\$1,118	9	24.2	\$2,746	2	33.6	\$4,114	
	Visual system	2	9.6	\$1,102	1	9.6	\$1,128	0	0.0	0	
	Head	23	46.7	\$5,214	11	9.0	\$1,083	11	32.9	\$4,313	
	Neck	1,025	36.1	\$4,111	875	32.6	\$3,880	679	33.7	\$4,442	
	Abdomen	28	29.4	\$3,290	9	19.2	\$2,272	9	38.8	\$4,655	
	Groin	4	41.6	\$4,708	3	34.1	\$3,973	9	8.9	\$1,015	
	Back - multiple	199	41.8	\$4,796	231	40.8	\$4,925	177	35.0	\$4,805	
	Upper/mid back	195	23.5	\$2,644	190	21.5	\$2,550	163	23.3	\$3,005	
	Low back	3,278	35.6	\$4,036	2,875	36.6	\$4,359	2,124	35.9	\$4,736	
	Chest	4	12.8	\$1,434	4	64.0	\$7,570	2	8.0	\$1,004	
	Hip	41	46.1	\$4,968	45	48.9	\$5,758	30	35.6	\$4,776	
	Pelvis	13	45.0	\$5,176	11	47.4	\$5,666	10	63.4	\$8,120	
	Shoulder	1,501	32.3	\$3,664	1,379	33.4	\$3,955	1,375	34.9	\$4,542	
	Integumentary sys.	16	39.4	\$4,568	19	20.9	\$2,583	15	12.2	\$2,064	
	Circulatory system	1	64.0	\$7,518	2	14.4	\$1,692	1	166.4	\$20,925	
	Heart (only)	3	65.1	\$7,047	2	78.4	\$8,858	2	73.6	\$10,165	
	Hematopoietic sys.	0	0.0	0	0	0.0	0	4	16.0	\$2,080	
	Excretory system	4	53.6	\$6,443	10	82.2	\$10,785	6	22.4	\$3,401	
	CNS - spine	8	165.6	\$29,057	4	244.8	\$44,577	3	186.7	\$33,171	
	Respiratory system	12	56.5	\$7,106	9	40.5	\$5,610	9	44.1	\$5,182	
	Other body system	41	37.2	\$4,171	39	34.0	\$4,144	26	25.0	\$3,160	
	Mental disorder	26	73.7	\$8,345	50	77.1	\$10,823	35	60.5	\$7,747	
	Other part/condition	6	15.5	\$1,742	5	7.0	\$888	6	35.2	\$4,168	
		Total	6,484	35.6	\$4,053	5,849	35.9	\$4,311	4,741	35.2	\$4,628

Note: For determinations of unscheduled disability, the department's data system permits entry of only one body part or area per order.
Source: Department of Consumer & Business Services, Research & Analysis Section

Table 22. Accident-year distribution of PPD degrees, as of October 1998, Oregon, 1986-1997

Scheduled		Accident year											
Year after accident		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
1st	Net degrees	46,809	54,122	48,111	51,228	40,076	37,386	41,686	40,628	40,078	42,552	38,414	37,784
	Accident year %	31	35	34	39	38	40	43	42	42	48	56	77
2nd	Net degrees	56,923	55,959	56,738	48,127	38,513	34,723	32,990	36,933	39,277	33,857	26,941	11,018
	Accident year %	37	36	40	36	36	37	34	38	42	38	39	23
3rd	Net degrees	22,721	24,589	20,420	16,888	14,185	11,770	13,628	11,580	10,731	10,517	3,668	.
	Accident year %	15	16	14	13	13	13	14	12	11	12	5	.
4th	Net degrees	12,314	10,327	8,533	9,344	6,440	5,620	5,332	4,783	3,783	1,199	.	.
	Accident year %	8	7	6	7	6	6	5	5	4	1	.	.
5th	Net degrees	5,502	4,374	4,355	3,450	2,948	2,200	1,977	2,015	645	.	.	.
	Accident year %	4	3	3	3	3	2	2	2	1	.	.	.
> 5	Net degrees	7,563	5,062	4,926	3,290	3,450	1,818	1,422	501	.	.	.	.
	Accident year %	5	3	3	2	3	2	1	1	.	.	.	.
Claims		5,409	5,796	5,971	5,860	4,987	4,627	4,846	5,016	5,055	4,936	4,440	3,537
Total net degrees		151,832	154,433	143,083	132,327	105,611	93,517	97,035	96,441	94,514	88,124	69,024	48,802
Average degrees per claim		17.2	16.4	14.4	14.0	12.6	11.6	11.8	11.9	11.6	11.8	11.0	10.7

Unscheduled		Accident year											
Year after accident		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
1st	Net degrees	91,307	101,320	103,457	107,064	66,716	72,381	83,301	94,150	82,304	69,194	58,515	52,662
	Accident year %	19	22	23	32	28	31	35	39	39	40	44	68
2nd	Net degrees	196,917	193,382	226,736	143,711	102,622	105,208	98,447	98,240	92,789	78,000	64,984	24,586
	Accident year %	42	42	50	43	43	45	42	41	44	46	49	32
3rd	Net degrees	94,452	105,715	74,999	47,452	38,056	33,049	32,634	31,856	23,664	21,021	9,338	.
	Accident year %	20	23	17	14	16	14	14	13	11	12	7	.
4th	Net degrees	52,852	35,842	22,638	21,432	18,314	12,659	12,976	10,688	9,021	2,739	.	.
	Accident year %	11	8	5	6	8	5	6	4	4	2	.	.
5th	Net degrees	19,051	12,876	11,210	9,884	7,126	6,022	5,306	5,581	1,341	.	.	.
	Accident year %	4	3	2	3	3	3	2	2	1	.	.	.
> 5	Net degrees	14,059	12,777	11,647	7,680	6,900	5,046	2,646	566	.	.	.	.
	Accident year %	3	3	3	2	3	2	1	0	.	.	.	.
Claims		6,720	6,880	7,168	6,204	4,410	4,209	4,207	4,382	4,067	3,483	2,882	1,885
Total net degrees		468,638	461,912	450,688	337,222	239,735	234,364	235,310	241,081	209,118	170,953	132,837	77,248
Average degrees per claim		42.5	41.9	40.6	36.2	36.1	36.2	37.1	38.0	36.3	36.3	36.2	35.6

Source: Department of Consumer & Business Services, Research & Analysis Section

Table 23. Accident-year distribution of PPD degrees on aggravation, as of October 1998, Oregon, 1986-1997

Scheduled

Year after accident		Accident year											
		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
1st	Net degrees	718	1,027	603	1,240	1,557	1,775	2,278	1,874	1,653	267	483	371
	Accident year %	3	5	3	7	10	14	15	14	19	5	15	39
2nd	Net degrees	4,773	4,075	4,277	3,698	3,925	4,433	4,740	5,038	2,927	2,345	1,966	583
	Accident year %	22	21	24	21	25	34	31	38	34	48	61	61
3rd	Net degrees	5,495	5,223	4,439	4,451	3,792	2,838	4,001	2,800	2,180	1,905	773	.
	Accident year %	25	27	25	25	24	22	26	21	25	39	24	.
4th	Net degrees	4,536	3,747	3,316	3,572	2,900	1,904	2,259	1,757	1,453	403	.	.
	Accident year %	21	19	19	20	18	15	15	13	17	8	.	.
5th	Net degrees	2,544	2,059	1,771	1,873	1,744	986	1,280	1,355	440	.	.	.
	Accident year %	12	11	10	11	11	8	8	10	5	.	.	.
> 5	Net degrees	3,975	3,158	3,273	2,656	2,028	1,078	627	297	.	.	.	.
	Accident year %	18	16	19	15	13	8	4	2	.	.	.	.
Claims		352	334	406	453	438	480	473	487	366	197	159	44
Total net degrees		22,041	19,289	17,679	17,490	15,946	13,014	15,184	13,121	8,654	4,920	3,222	954
Average degrees per claim		16.1	14.4	12.1	12.5	12.7	10.9	11.5	11.8	10.9	11.1	10.6	11.0

Unscheduled

Year after accident		Accident year											
		1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
1st	Net degrees	2,048	2,854	2,493	3,098	3,987	4,016	5,766	7,043	3,885	1,322	758	723
	Accident year %	2	3	4	6	9	9	14	18	17	9	9	40
2nd	Net degrees	16,103	21,068	21,304	13,609	14,490	16,456	15,435	13,222	8,090	6,339	5,539	1,075
	Accident year %	19	25	33	26	31	38	37	34	35	41	69	60
3rd	Net degrees	26,823	29,263	17,259	13,205	10,720	9,139	9,731	9,939	5,165	6,669	1,779	.
	Accident year %	31	35	26	25	23	21	24	25	23	43	22	.
4th	Net degrees	22,077	16,403	9,749	10,134	8,434	6,350	5,619	4,826	4,950	1,046	.	.
	Accident year %	26	20	15	19	18	15	14	12	22	7	.	.
5th	Net degrees	10,415	6,629	6,157	6,914	5,050	3,622	3,069	3,584	790	.	.	.
	Accident year %	12	8	9	13	11	8	7	9	3	.	.	.
> 5	Net degrees	7,879	7,840	8,285	6,152	3,555	3,366	1,731	454	.	.	.	.
	Accident year %	9	9	13	12	8	8	4	1	.	.	.	.
Claims		652	710	630	568	568	522	567	550	343	213	137	34
Total net degrees		85,345	84,057	65,246	53,112	46,235	42,950	41,351	39,069	22,880	15,376	8,077	1,798
Average degrees per claim		41.5	40.6	37.2	36.9	36.4	35.8	34.8	37.1	34.0	34.2	35.0	34.6

Note: Aggravations are estimated based on the presence of a second DO or NOC—actual counts are probably higher.
 Source: Department of Consumer & Business Services, Research & Analysis Section

Appendices

Technical notes

General notes. Data are current as of July 1998, unless otherwise noted. Forms of the word “injury” denote occupational illnesses as well as injuries. “Insurer” or “carrier” comprises SAIF (the state fund), and self-insured employers, as well as private insurers. The occupation of the injured worker is classified according to the 1990 Census of Population Alphabetical Index of Industries and Occupations. The industry, or nature of business, of the employer is classified according to the *Standard Industrial Classification Manual*, 1987 edition.

Data sets analyzed. The primary data file for this report is a quarterly extract, WCD.ROSH.AWARD, of the PPD awards table from the Claims Information System (CIS). Each record represents a new or changed rating of a compensable condition made at one of the several levels of determination in the Oregon workers’ compensation system. Unfortunately, the quality of the data in the CIS awards table suffers from four significant shortcomings: incomplete data entry of awards ordered at the Workers’ Compensation Board (WCB) through about 1991; deletion from the awards table of data (notably, on level of determination) for older, “inactive” claims in order to save space on the CIS; inconsistent data entry of conditions rated prior to the inception of the PPD data table on the CIS in the mid-1980s; and a data structure that permits entry of only one unscheduled body part or area per determination.

The first two of these shortcomings were largely overcome, by appending data from extracts of the parallel WCB data system and by match-merging data on the AWARD extract to the several historical extracts made for each level of determination. The resulting supplemental AWARD extract still has problems: the WCB data system does not capture detail on specific body parts, areas, or conditions rated, which prevented analysis prior to 1992; and some WCB records are missing demographic data because their record identifiers could not be matched successfully to the CIS. One enhancement from this project is better data on grants at Hearings. The third shortcoming appears to be insignificant but may have affected data on scheduled awards, raising grant counts and lowering per-claim averages, for earlier years especially. The last shortcoming results in partially deflated counts of unscheduled body parts or areas with an award for PPD,

in the section *Awards by body part* and Table 21, but the effect on the analysis is probably minimal. Otherwise, the AWARD extract and its supplement present a complete picture of PPD awards for the years analyzed in this report.

Inevitably, there will be comparisons of data in this report to data in other departmental reports that are based on the historical extracts for individual levels of determination. Tabulations in this report by year of award are analogous to tables in other publications, yet differences in degrees determined and dollars awarded will be noted. These are attributable to (1) extracts generated from the CIS at different times, primarily data on the first level of determination by the Evaluation Unit and carriers; (2) differences in the way that extracts handle deletions of records; and (3) parallel data systems on PPD awards at the WCB and the Workers’ Compensation Division, which is responsible for the CIS. The first of these reflects differing criteria for reporting work load as against system performance. The second is a theoretically fixable problem, likely to occur when many data extracts are taken from a complex system of more than 100 tables, wherein rigorous control of delete transactions is more a management goal than an historical fact. The last reflects an emphasis upon the independence of the department’s adjudicative function; recent plans have focused on minimizing data discrepancies and the redundancy itself. One data problem identified by this project was an overcount of grants at Hearings on the WCB system, an error reflected in earlier IMD publications on Hearing Division statistics.

OII coding. In 1995, the department converted its claims characteristics data (nature, part, type—now event—and source) from the Supplementary Data System coding system to the Occupational Injury & Illness Survey coding system. All records on claims characteristics entered prior to January 1996 have been converted from SDS to OII codes. Thus, data in this report characterized as 1996 or later contain a mixture of data: records originally coded SDS, later converted to OII, and records originally coded OII. However, we have minimized problems of comparing nature, part, event, and source by using high-level classifications. See *Oregon Workers’ Compensation Claim Characteristics Calendar Year 1996* for additional details.

PPD on aggravation. Currently, an aggravation is defined (ORS 656.273) as a worsened condition resulting from the original injury, occurring within the course and scope of employment, and established by medical evidence supported by objective findings. Prior to SB 1197 of 1990, an aggravation was established by a physician's report indicating a need for further medical services or additional compensation. The department's limited data on aggravations does show a drop in accepted aggravation claims following the adoption of the more restrictive statute.

Unfortunately, the data system does not support a complete retrospective accounting (by the year of last award) of PPD awarded on aggravation, primarily because data on individual PPD awards were reliably entered beginning around 1986, only. We probably can identify all or most PPD awards on aggravation for claims last awarded

PPD in 1997. However, we cannot reconstruct PPD on aggravation for claims with the last award in 1986, even though we are confident that we know the total PPD awarded for those claims as of that year.

A front-end (developing) analysis is possible, however, though it too suffers from a system not designed for easy identification of actions occurring during aggravation openings. In this report we assume that PPD awards come on aggravation whenever there is PPD from a second or subsequent Determination Order or Notice of Closure, excluding amendments and redeterminations after vocational assistance. While this logic covers the vast majority of situations, the resulting estimates must be regarded as minimum numbers. Among the types of claim not counted are those where the first or all PPD awards for an aggravation claim come on appeal.

Summary of Law Changes Affecting PPD Claims and Benefits

The Oregon Safe Employment Act is contained in Chapter 654 of Oregon Revised Statutes. The Workers' Compensation Law is at Chapter 656, and "civil rights of disabled persons" are covered in Chapter 659. Included below are amendments alluded to in the text. For a comprehensive summary, see the department's *Monitoring the Key Components of Legislative Reform*. All numbering is according to current statute.

HB 2271 of 1987

656.266 Placed on the worker the burden of proving that an injury or occupational disease is compensable and of proving the nature and extent of any disability. The worker cannot prove compensability simply by disproving other explanations.

656.802 (3) Restricted mental stress claims to those arising out of real and objective employment conditions not generally inherent in every working situation, and required "clear and convincing evidence" that the mental disorder arose out of and in the course of employment.

HB 2900 of 1987

654.086 Increased penalties against employers who violate the state safety and health act.

654.090 (4) Expanded the purposes of ORS Chapter 654 to promote more effective safety and health educational (consultative) efforts.

654.097(1) Required insurers and self-insured employers to provide safety and health loss prevention consultative programs that conform with department standards.

656.214 (2) Increased the value of a degree of disability for scheduled injuries from \$125 to \$145.

656.214 (5) Altered the definition of earnings capacity (this definition conflicted with 656.726 (3)(f) and was modified by SB 1197).

656.245 (2)(a) Reduced the number of attending physicians an injured worker could select during the

life of a claim from five to three, unless otherwise authorized by the director.

656.248 (9) Expanded the director's authority to establish fee schedules to include inpatient hospital services.

656.252 (1) Expanded the scope of medical rules to require insurer audits of billings for medical services, including hospital services.

656.254 (3) Expanded sanctions against health care practitioners who failed to comply with rules adopted under statute.

656.268 (4)(a) Allowed insurers to close permanent disability claims as long as department evaluation standards were applied and the worker had returned to work.

656.268 (4)(f) Provided for penalties if insurer claim closure actions were unreasonable.

656.268 (6)(b) Reduced the time allowed to request a hearing from one year to 180 days following claim closure.

656.268 (14) Allowed for insurer offsets against awards for overpayments.

656.278 Restricted the power and jurisdiction of the Workers' Compensation Board to use its own motion authority; altered eligibility criteria and excluded own motion claims costs from loss experience, providing funding for these costs from the Reopened Claims Reserve.

656.283 (4) and **656.295 (4)** Required the board to schedule a hearing or board review no later than 90 days after receipt of request. The hearing or review shall not be postponed except for extraordinary circumstances beyond the control of the requesting party.

656.283 (7) and **656.295 (5)** Mandated application of disability rating standards at hearing and the board, subject to exclusion on "clear and convincing evidence."

656.283 (10) Mandated an informal dispute resolution process by the board (repealed by SB 1197).

656.298 (6) Changed de novo review by the Court of Appeals to substantial evidence review. The Court is limited to reviewing matters of law.

656.325 (1) Repealed exception for consulting physicians within the limit of three insurer medical examinations per opening of the claim, unless otherwise authorized by the director.

656.340 (6) Restricted eligibility for vocational assistance.

656.388 (3) Required the board to establish a schedule of fees for attorneys representing an insurer, self-insured employer, or a worker.

656.622 (3) Established the Preferred Worker Program within the Workers' Reemployment Reserve.

656.709 (1) Created the Office of the Workers' Compensation Ombudsman for injured workers.

656.726 (3)(f) Allowed the Director to provide standards for the evaluation of disabilities and altered the definition of earning capacity to be used in calculating disability.

656.794 (1)-(2) Expanded the Medical Advisory Committee to nine members and added the duty to review proposed standards for medical evaluation of disabilities.

HB 2982 of 1989

654.191 and **705.145** Established the Occupational Safety and Health Grant program to fund organizations and associations to develop innovative education and training programs for employees in safe employment practices, with funding not to exceed \$400,000 per biennium; funded from civil penalties assessed by OR-OSHA.

SB 1197 of the 1990 special session.

654.176 (1) Required that all employers with more than ten employees establish a safety and health committee, and that employers with ten or fewer employees establish safety committees if the employer has

experienced a lost workday cases incidence rate in the top 10 percent of all rates for employers in the same industry, or is subject to a premium classification in the highest 25 percent of premium rates.

656.005 (7) Redefined compensable injury to require that it be established by medical evidence supported by objective findings. In addition, the compensable injury must be the major contributing cause of a consequential condition. If the compensable injury combines with a preexisting condition, the resultant condition is compensable only to the extent that the compensable injury is and remains the major contributing cause of the disability or need for treatment. Excluded injuries from recreational and social activities; and injuries which arose from the use of alcohol or drugs if it is proven by clear and convincing evidence that the drug or alcohol use was the major contributing cause.

656.005 (12)(b) Limited who could be an attending physician to a medical doctor, doctor of osteopathy, or a board-certified oral surgeon. Chiropractors qualify as attending physicians for the first 30 days or 12 visits, whichever comes first.

656.214 (2) Increased the value of a degree of disability for scheduled injuries from \$145 to \$305.

656.214 (5) and **656.726 (3)(f)** Required the department's disability evaluation standards to be used for the initial rating and for all subsequent litigation; reconciled the definitions of earning capacity to be used in calculating disability.

656.236 Allowed for compromise and release settlements (Claims Disposition Agreements) of claims benefits except for medical services.

656.245 (1)(b) Eliminated palliative care after the worker became medically stationary, except when provided to a worker determined to have permanent total disability, when necessary to monitor administration of prescription medication required to keep the worker in a medically stationary condition, or to monitor the status of a prosthetic device. In addition, if the worker's attending physician believes that palliative care is appropriate to enable the worker to continue current employment, the attending physician may seek approval from the insurer for such treatment. If the insurer refuses to authorize the treatment, the attending physician can ask the department to resolve the dispute.

Appendix B (cont.)

656.260 Allowed groups of medical service providers or health care providers to be certified by the department as managed care organizations (MCOs). Insurers can contract with MCOs to provide medical services to injured workers.

656.262 (4)(d) Excluded medical services from insurer reimbursement until the attending physician provides verification of the worker's inability to work.

656.262 (6) Increased the amount of time for insurer acceptance or denial of a claim from sixty to ninety days. Allowed insurers to deny a previously accepted claim at any time up to two years from the date of claim acceptance if the claim is accepted in good faith, but it is later determined not to be compensable or that the insurer is not responsible for the claim.

656.268 (4)(a) Expanded insurers' authority to close claims when the worker has become medically stationary and the worker has returned to work or the attending physician has released the worker to regular or modified employment.

656.268 (4)(e) and (6)(a) Required mandatory reconsideration of a disputed insurer Notice of Closure, or department Determination Order, and required reconsideration to be completed within 15 days from the date of request. An additional 60 days is allowed if a medical arbiter is appointed. (The 15 days was changed to 18 working days in the 1991 session).

656.268 (4)(g) Provided for an insurer penalty if the department's determination of permanent disability on reconsideration of an insurer Notice of Closure is greater than the insurer's award by 25 percent or more.

656.268 (7) Required claim referral to medical arbiter if impairment findings are disputed. No medical evidence subsequent to the medical arbiter report is admissible before the department, the board, or the courts.

656.273 Required that claims for aggravation be established by medical evidence supported by objective medical findings that the worsened condition resulted from the original injury.

656.283 (7) and 656.295 (5) Provided that the evaluation of the worker's disability by hearings referees or the board shall be as of the date of the reconsideration order. Required the hearings referee and the board to apply the same standards for evaluation of disability as

used by the department and insurers, but allowed for the worker or insurer to challenge whether the standards for evaluation of disability were incorrectly applied in the reconsideration order.

656.313 (1) When the employer or insurer appeal, payment of compensation appealed is stayed except for temporary total disability and permanent total disability benefits that accrue from the date of the order appealed. Allowed for interest to accrue on the benefits stayed.

656.622 (3) Enhanced the Preferred Worker Program by exempting an employer who hires a preferred worker from premiums or premium assessments for the preferred worker for a period of three years and reimbursing the insurer for any claim costs should the preferred worker sustain a new injury during the three year premium exemption period.

656.726 (3)(f)(B) Mandated that impairment be established by a preponderance of medical evidence based on objective findings.

656.726 (3)(f)(C) Required the director to adopt temporary rules amending the standards for the evaluation of disabilities when the director determines that standards do not adequately address the worker's disability.

656.780 Required the director to establish a claims examiner certification program.

656.790 Created the Workers' Compensation Management-Labor Advisory Committee to, among other things, periodically review disability evaluation standards and generally advise the department on workers' compensation matters.

656.802 (1) and (2) Changed the definition of occupational disease, and provided that compensable diseases must be caused by substances or activities to which an employee is not ordinarily subjected or exposed, and that the employment be the major contributing cause. The existence of the disease must be established by medical evidence supported by objective findings.

659.415 Established injured worker employment reinstatement rights, subject to certain conditions and restrictions, with employers with more than 20 employees.

HB 3017 of 1991

654.086 Mandated increases in penalties to federal maximums against employers who violate occupational safety and health standards.

SB 732 of 1991

656.214 (Note) Established the value for a degree of scheduled disability as seventy-one percent of the statewide average weekly wage, thus providing annual adjustments to the value of a degree beyond the formerly authorized amount of \$305. Established a tiered structure for calculating the value of a degree of unscheduled disability as a function of the statewide average weekly wage, thus providing annual adjustments to the value of a degree and providing a structure that compensates the more severely injured at higher tiered rates per degree of disability.

SB 369 of 1995

656.005 (7)(a)(B) Decreed that a combined condition was compensable only as long as and to the extent the otherwise compensable injury was the major contributing cause of the combined condition or the need for treatment.

656.005 (7)(b)(C) Reduced the standard of proof required to show that the major contributing cause was consumption of alcoholic beverages or a controlled substance, to “preponderance of evidence” from the previous “clear and convincing evidence.”

656.005 (7)(c) Expanded the previous definition of “disabling injury” to specifically exclude those injuries where no temporary benefits were due and payable, unless there was a reasonable expectation that permanent disability would result from the injury.

656.005 (19) Expanded the definition of “objective findings” to be verifiable indications of injury or disease, and excluded physical findings or subjective responses to physical examinations that were not reproducible, measurable or observable.

656.005 (20) Defined “palliative care” as medical service rendered to reduce or moderate temporarily the intensity of an otherwise stable medical condition. Excluded from the definition those medical services rendered to diagnose, heal, or permanently alleviate or eliminate a medical condition.

656.214 (2) & (6) Increased the value of a degree of scheduled permanent partial disability to \$347.51; for unscheduled permanent partial disability, changed the structure of the tiers and increased the value of a degree in each tier. This eliminated the computation of the dollar value of a degree of disability as a percentage of the statewide average weekly wage, effective January 1, 1996.

656.214 (Note) Temporarily increased the value of a degree of disability over the 656.214 (2) & (6) values, effective January 1, 1996, through December 31, 2000.

656.236 (1)(b) Authorized waiving of the 30-day waiting period for approval of a claim disposition agreement, if the worker was represented by an attorney at the time he or she signed the agreement.

656.245 (4) Described conditions under which workers are subject to a managed care organization contract. Insurer may require an injured worker to receive medical treatment in the MCO prior to claim acceptance. However, if the claim is eventually denied, the insurer must cover those services until the worker receives notice of the denial or until three days after the denial notice is mailed.

656.262 (6)(d) Required that an injured worker who believed that a condition had been incorrectly omitted from the acceptance notice, or that the notice was otherwise deficient, to first communicate in writing to the insurer or self-insured employer the worker’s objections. Precluded a worker who failed to comply with this requirement from taking the matter up at a hearing.

656.268 (1) Authorized claim closure before the worker’s condition became medically stationary if the accepted injury ceased to be the major contributing cause of the worker’s combined or consequential condition or, if without the approval of the attending physician, the worker failed to seek medical treatment for a period of 30 days or failed to attend a closing examination.

656.268 (4) Changed the appealable period of a Notice of Closure or Determination Order to 60 days for departmental reconsideration and another 30 days from the reconsideration order for a hearing request.

Appendix B (cont.)

656.273 (3) Required that a claim for aggravation be in writing in a form and format prescribed by the director.

656.283 (7) Prohibited submission at hearing evidence not submitted on departmental reconsideration.

656.327 (1)(a) Gave exclusive jurisdiction over all medical treatment disputes to the director. This now includes treatment that the injured worker has received, is receiving, or will receive.

656.340 Clarified when vocational eligibility must be determined following aggravation and the eligibility criteria thereof. Changed the requirement for insurers to request reinstatement or reemployment on behalf of workers to require that insurers inform workers of their opportunity to seek reinstatement or reemployment. Provided that workers are not entitled to vocational assistance after the expiration of their aggravation rights. Expanded the definition of the suitable wage that is the target for vocational assistance and revised the definition of regular employment to include employment at the time of aggravation.

656.622 Provided for reimbursement of reasonable program administrative costs of insurers participating in the Employer-at-Injury Programs and codified the existing practice of reimbursement of claim administrative costs for Preferred Workers. Expanded expenditures from the Reemployment Assistance Program to include workers with nondisabling claims as eligible for the Employer-at-Injury Program, to preclude or reduce nondisabling claims from becoming disabling. Established a Worksite Redesign Program, including engineering design work and occupational health consulting services, to prevent the recurrence of on-the-job injuries. Clarified that the Preferred Worker Program may be available to workers with any permanent disability.

656.726 (3)(f)(D) Required that impairment be the only factor to be considered in evaluating a workers disability if the worker has returned to, or the attending physician has released the worker to, regular work at the job held at the time of injury.

656.790 (1) and (2) Reduced the membership of the workers' compensation Management-Labor Advisory Committee (MLAC) from 14 to 10 members (five from organized labor representing subject workers, five

representing subject employers). Mandated reporting to the legislature by the MLAC such findings and recommendations as the committee finds appropriate, including reports on: (a) court decisions having significant impact on the workers' compensations system; (b) adequacy of workers' compensation benefits; (c) medical and system costs; and (d) adequacy of assessments for reserve programs and administrative costs.

659.415 and 659.420 Added restrictions on when a worker may be reinstated to regular employment or reemployed in suitable and available work.

HB 2549 of 1997

656.214 (Note) Increased PPD benefits for injuries occurring during January, 1, 1998, through December 31, 2000. Benefits for scheduled disabilities increased eight percent per degree, and benefits for unscheduled disabilities increased six percent per degree. These increases maintained the national median maximum benefit levels established by SB 369.

HB 2971 of 1997

656.262(b)(F) Required that the notice of acceptance be modified by the insurer or self-insured employer when medical or other information changed a previously issued notice of acceptance. The amendment was fully retroactive, regardless of the date of injury.

656.262(7)(c) Required that when an insurer or self-insured employer determines that a claim qualifies for closure, the insurer or self-insured employer must issue an updated notice of acceptance that specifies the compensable conditions. If a condition is later found compensable, the insurer or self-insured employer must reopen the claim for processing that condition. The amendment was fully retroactive, regardless of the date of injury.

656.262(10) Stated that an insurer's or self-insured employer's failure to appeal or seek review of a Determination Order, Notice of Closure, reconsideration order, or litigation order does not preclude them from subsequently contesting the rated condition in the order, unless the condition has been formally accepted. The amendment was fully retroactive, regardless of the date of injury.

SB 118 of 1997

656.268(6) Reversed the “Guardado” decision and allowed only one reconsideration per claim closure. Time frames for conducting the reconsideration now begin when all parties request or waive reconsideration rights.

SB 119 of 1997

656.268(7)(d) Provided additional time to allow workers to attend rescheduled medical arbiter exams and provided for suspension of benefits so that appeals are held concurrently.

The Workers' Compensation Division has

Two Innovative Programs

to help injured workers get back to work and lower workers' compensation costs



Employer-at-Injury Program

This program offers reimbursements to eligible employers who return their injured workers to light-duty work while their claims are still open. Reimbursements can include up to:

- ❖ Three months 50 percent wage subsidy
- ❖ \$2500 for worksite modification
- ❖ \$100 for tools and equipment required for the job
- ❖ \$400 for clothing

Preferred Worker Program

This program provides incentives to employers who hire or reemploy workers with permanent disability who can't return to regular work because of on-the-job injuries. The incentives include:

- ❖ Six months 50 percent wage subsidy
- ❖ Up to \$25,000 for worksite modification
- ❖ Exemption from paying workers' compensation premiums for the Preferred Worker for up to three years
- ❖ Protection from claim costs if the Preferred Worker has a new on-the-job injury during the premium exemption period
- ❖ Payment for certain items needed to obtain or maintain employment, such as clothing and tools

These programs provide win-win return-to-work solutions for Oregon workers and employers.

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