

The 104-week Duration Limit for Workers' Compensation Temporary Total Disability Benefits



**Research and Statistics
Minnesota Department of Labor and Industry**

The 104-week Duration Limit for Workers' Compensation Temporary Total Disability Benefits

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Research & Statistics

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September 29, 2000

Dear colleague:

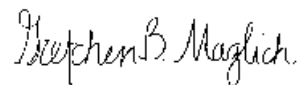
I am pleased to share with you this study, "The 104-Week Duration Limit for Workers' Compensation Temporary Total Disability Benefits."

The 1995 workers' compensation reform legislation included a provision that limits the duration of temporary total disability (TTD) benefits to 104 weeks, effective for injuries on or after October 1, 1995. Along with the legislation, there was an expectation that the effects of the reforms would be analyzed when sufficient data became available. The present study is a major first step toward that end.

The study reports on three different analyses to describe the circumstances and issues facing individuals with a year or more of TTD benefits who are approaching the duration limit. These analyses find, for example, that most long-duration claimants face a variety of problems including health issues, most have used vocational rehabilitation services, most are involved in disputes, and most have intermittent periods of work following their injuries. The study also estimates that, out of an total of 28,500 indemnity claimants, between 250 and 310 TTD claimants per year will exhaust their benefits under the duration limit.

I hope these results will aid in discussions about how employers, insurers, and the department can improve outcomes for long-term TTD claimants.

Sincerely,



Gretchen Maglich
Commissioner

Executive Summary

This study examines the effect of the 1995 workers' compensation law change that limited temporary total disability (TTD) benefits to 104 weeks of total duration, effective for injuries on or after October 1, 1995. Previously, TTD benefits were available until 90 days after the injured worker reached the point of maximum medical improvement. The 1995 law change also set eligibility thresholds for permanent total disability (PTD) benefits. Persons denied PTD eligibility will tend to become longer-duration TTD claimants.

The study examines the characteristics of long-duration TTD claimants, describes the activities occurring during their claims, gathers information about the problems they face and estimates the number of such claimants.

Features of Long-duration Total Disability Claims

An examination of claim file documents for a sample of claims that resulted in 80 or more weeks of total disability (TD) benefits (TTD or PTD benefits) showed that:

- TTD benefits were converted to PTD benefits for 13 percent of the claims. Additional claimants are likely to convert their TTD benefits to PTD benefits as the claims mature and issues are settled.
- Eighty percent of the claimants received vocational rehabilitation services to help them return to work. Less than 10 percent of the claimants had retraining plans filed. Retraining is a vocational rehabilitation service that provides injured workers formal education to help them return to work.
- Dispute resolution activity was evident in 87 percent of these claims. All claims lasting longer than 104 weeks showed some dispute resolution activity.

- Most claimants with 80-104 weeks of TD benefits had intermittent work periods following their injuries. In contrast, only about one quarter of the claimants receiving more than 104 weeks of TD benefits had intermittent work.
- Most of the claims that remain open are involved in dispute resolution or had recent claim settlements.
- Some TTD claimants who never converted to PTD benefits still receive more than 104 weeks of TTD benefits. Most of these cases are involved in dispute resolution and settlement negotiations when the 104-week threshold is reached. PTD status and retraining are often among the issues in dispute.
- Most claims are the result of medically severe injuries. The resultant disabilities impair workers' ability to return to their pre-injury jobs.

Worker and Job Characteristics

The characteristics of claimants with 80 or more weeks of TD benefits who were injured after the 1995 law change (current-law) were compared to those of TD claimants injured before the law change (old-law) and to those of all indemnity claimants. Among the findings are:

- The percentage of construction workers among long-duration claimants was more than double its percentage among all claimants.
- Long-duration claimants were more likely to experience injuries to their backs or to multiple body parts. Fractures were more prevalent among the current-law long-duration claimants than both the old-law long-duration claimants and than among all current-law claimants.

- Long-duration injured workers were generally older than the shorter-duration injured workers. The median age was four years older for both old-law and current-law long-duration claimants than for all indemnity claimants.
- There were fewer females among the long-duration current-law claimants (25 percent) than among both old-law claimants (32 percent) and all current-law claimants (35 percent).

Survey of Long-Duration Claimants

A phone survey was conducted to gather information about the claims situations faced by injured workers with one year of TTD benefits. Thirty-four interviews were conducted. Findings included:

- Long-duration TTD claimants face a variety of problems. Most claimants mentioned that health problems continue to affect their ability to return to work.
- After one year of TTD benefits, 39 percent remained officially employed by their pre-injury employer. However, only 8 percent of the respondents expected to work for their pre-injury employer when able to return to work.

Estimated Number of Claimants

- Based on claim duration experience from 1984 to 1995 and the projected number of new TTD beneficiaries each year, it is estimated that between 250 and 310 new beneficiaries each year will ultimately exhaust their TTD benefits and be ineligible for permanent total disability (PTD) benefits. This is approximately 1 percent of the 28,500 new TTD beneficiaries per year currently.
- The duration limit affects claimants who would have been ineligible for PTD even without the new PTD threshold (an estimated 240 claimants) and those excluded from PTD

eligibility by the new threshold (an estimated 10-70 claimants).

- Data available so far indicate that for injury years 1996 and 1997, about 123 and 103 claimants, respectively, have exhausted their TTD benefits under the new limit. Because the data are not yet mature, it is expected that these numbers will rise in future tabulations.
- Current benefit data suggest that more than half of the TTD-only claimants affected by the limit have some earning capacity. Among individuals with 96-106 weeks of temporary or permanent total disability benefits for 1996 and 1997 injuries, between 52 and 63 percent received temporary partial disability (TPD) benefits at some point during their claim, with 14-27 percent receiving TPD benefits *after* their last TTD. These figures will likely increase as claims mature.
- Data suggest that the vast majority of TTD claimants who do not convert to PTD and who exhaust their benefits under the new limit receive some help toward securing employment during their claim. Among injury year 1996 and 1997 claimants with 96-106 weeks of TD benefits, between 84 and 92 percent received vocational rehabilitation services.

Contents

Introduction	1
Total Disability Benefits	1
Preview of report sections	2
Analysis of First-Quarter 1996 Claims	3
Permanent Versus Temporary Total Disability	3
Vocational Rehabilitation	3
Retraining	4
Dispute Resolution	4
Intermittent Work	5
Claim File Status	5
Breaking the 104-week barrier	6
Injury Severity	6
Claimant and Injury Characteristics	
A Comparison of Pre- and Post-1995 Law Change Claims	7
Survey of Injured Workers with 52 Weeks of	
Temporary Total Disability Benefits	16
Findings	16
The Number and Percentage of Claimants Exhausting Their TTD Benefits	19
Estimation for Group 1	19
Estimation for Group 2	20
Combined Estimate	21
Observed Effects in Post-Law-Change Claims	22
TTD-Only Beneficiaries Who Reach the 104-Week Limit	23
Conclusion	26
Appendix A: Claims Selection, Data Quality and Technical Notes	28
Appendix B Percentage Distributions and Statistical Significance	
of Characteristics	30
Appendix C Phone Survey Sample Selection and Respondent Analysis	32
Appendix D A Comparison of the Estimates from Closed-Claim Data and from Developed Injury year Data	
.....	36

Figures

1. Workers' Compensation Claim Status and Events	4
2. Reasons Files Remain Open	5
3. Percentage of Female Claimants	8
4. Percentage of Married Claimants	9
5. Age Distribution of Claimants	10
6. Industry Distribution of Claimants	11
7. Occupational Distribution of Claimants	12
8. Distribution of Part-of-Body Injured	13
9. Distribution of Nature of Injury	14
10. Distribution of Cause of Accident	15
11. Phone Survey Categorical Responses by Claimant Gender	17
12. Respondents' Issues, Problems and Comments About Their Claims Experience	18
13. Percentage of TTD-Only Cases	20
14. Estimation of Annual Number of Group 2 TTD-Only Cases	21
15. Quarters of TTD and/or PTD by Injury Year	23
16. Cases with 96-106 Weeks of TTD and/or PTD	24
B-1. Percentage Distributions of Claimant and Job Characteristics	30
B-2. Percentage Distributions of Injury Characteristics	31
D-1. Percentage of TTD/PTD Cases With More Than Two Years of TTD/PTD Benefits	37
D-2. Projection of Percentage of TTD-Only Cases With More Than Two Years of TTD Benefits for Injury Years 1991-1995	38

1

Introduction

The 1995 workers' compensation law change limited temporary total disability (TTD) benefits to 104 weeks of total duration, effective for injuries on or after October 1, 1995.¹ Previously, TTD benefits were available for up to 90 days after the date the injured worker reached maximum medical improvement. The law change also limited permanent total disability (PTD) eligibility to people with a permanent partial disability (PPD) rating of 13, 15 or 17 percent, depending on age and education.² The new limits on PTD eligibility increase the number of people potentially affected by the duration limit, because persons denied PTD eligibility will tend to be long-duration TTD recipients.

There are many questions about the effects of this law change. Among them are:

- How many claimants will exhaust their TTD benefits under the new limit?
- What happens to claimants whose benefits are exhausted?
- What events typically occur during long-duration claims?
- What happens at the 104-week point?
- Are the claimants different demographically from claimants with similar-duration claims from before the law change?

- Are the claimants different demographically from claimants with shorter disability durations?

This report is intended to provide workers' compensation policymakers with information to help evaluate the effects of the 1995 law change and to inform any discussion of whatever further statutory or administrative changes are needed.

The report uses workers' compensation claims data collected by the Department of Labor and Industry to estimate the number of claimants who will exhaust their TTD benefits under the 104-week limit. The report also describes how the workers' compensation system has changed as a result of the TTD duration limit and how the claimants affected by the law change have interacted with the workers' compensation system.

Enough time has elapsed since the law change to gather information relevant to these questions. However, the statistical information gathered about the effects of the 104-week TTD duration limit on claims is still preliminary. With the passage of time, the benefit types and durations of more claims occurring after the law change will become known.

Total Disability Benefits

Injured workers who are unable to work as a result of a work-related injury or illness receive one of two types of total disability (TD) wage replacement benefits: TTD or PTD. TTD benefits are paid, as their name implies, for disabilities that are expected to be temporary in duration. PTD benefits are paid to injured workers whose injuries prevent

¹Minnesota Session Laws for 1995, Chapter 231. The 1995 law change is detailed in *CompAct*, July 1995 (Department of Labor and Industry).

²The PTD threshold applies to PTD that is based on inability to work in gainful employment. The threshold is 17 percent, 15 percent if the claimant is over age 50 at the time of injury, or 13 percent if the claimant is over 55 and has not completed high school or an equivalency degree. The threshold does not apply to "statutory" PTD, which is based on having a particular injury specified in statute.

them from ever returning to a steady job and earning a living from work. Most injured workers who eventually receive PTD benefits initially receive TTD benefits. As more information about the extent of the injury and the prospects for returning to work become known, the benefits may switch to PTD.

The estimated number of new claimants per year who will exhaust their TTD benefits under the 104-week limit pertains to those TTD claimants who are projected never to become eligible for PTD benefits; the loss of TTD benefits is of no consequence if it is replaced by PTD benefits.

Preview of report sections

This report contains the results of four separate analyses of workers' compensation data about claims with long durations of TD benefits.

The first analysis examines claims for injuries in the first quarter on 1996 that resulted in 80 or more weeks of TD benefits. This analysis explores the questions of why TD benefits were being paid for an extended duration, what events occurred to affect return to work or claims settlement, and what were the reasons claims remained open.

The second analysis examines claimant, job and injury characteristics for long-duration TD claims. This analysis provides a basis for understanding what type of workers and injuries are involved in long-duration TD claims. Claims occurring prior to the 1995 law change are compared to post-law change claims. The long-duration claims are also compared to all indemnity claims to examine possible differences.

The third analysis presents the results of a survey of claimants with approximately one year of TTD benefits. This small-scale survey was used to elicit worker's descriptions of the problems they faced with their workers' compensation claims, their return-to-work efforts, and their health care.

The fourth and final analysis estimates the number of claimants who will exhaust their TTD benefits, examines the effect of the duration limit on the observed distribution of TD duration and looks at claimants' post-injury work experience and use of vocational rehabilitation benefits.

The technique used to estimate the number of TTD claimants expected to exhaust their TTD benefit is detailed in Appendix D. This appendix also compares the estimation technique with the method used in previous estimates.

2

Analysis of First-Quarter 1996 Claims

Workers' compensation claims involve many complex issues and long-duration claims are the most complex of all workers' compensation claims. This section provides an analysis of some of the processes and issues involved with long-duration claims. It further examines the differences between claims based on benefit duration. The information used in this section is based on a review of the claim file documents received by the Department of Labor and Industry.

All claims with injury dates during the first quarter of 1996 and with database records indicating 80 or more weeks of TD benefits were selected for review. The claims from this quarter were about four years old at the time of analysis. The claims were divided into four TD duration groups: 80-89 weeks, 90-103 weeks, 104 weeks and longer than 104 weeks. A total of 84 claims were studied.

A more complete discussion of the claim selection and data collection procedures is included in Appendix A.

The claim files were examined to identify:

- 1) the presence of a retraining plan and whether or not it was accepted;
- 2) if PTD benefits were paid;
- 3) if a vocational rehabilitation plan was filed;
- 4) if any type of litigation was indicated at any point in the claim;
- 5) if the employee had one or more work periods following the injury; and,
- 6) the claim's open/closed status, and if open, the reason the claim was open.

TTD and PTD claims are examined together because the distinction between these claim types are blurred for long-duration claims.

Some of the TTD claims in the group studied may ultimately convert to PTD claims. Generally, receiving a PTD designation converts TTD benefits to PTD benefits retroactively to the start of the claim. Some workers with very severe injuries will qualify for PTD benefits before 80 weeks of benefits are received. All of the PTD claims included in this analysis were converted from TTD to PTD claims after at least 80 weeks of TTD benefits had been paid.

The number of claimants with each of the features and the percentage within their respective duration group are shown in Figure 1.

Permanent Versus Temporary Total Disability

Of the 84 long duration TD claims examined, 11 were PTD claims. As expected, the highest proportion (and the greatest number) of PTD claims were in the "longer than 104 weeks" category. Thus, 87 percent of the injured workers with 80 or more weeks of TD benefits have had to (or will have to) contend with the 104-week maximum duration limit for TTD benefits.

Vocational Rehabilitation

A large majority of the claimants in each duration group received vocational rehabilitation services, indicated by the filing of a vocational rehabilitation service plan. The percentage of claims with vocational rehabilitation plans shows an interesting pattern: the smallest percentages of plans

Figure 1
Workers' Compensation Claim Status and Events
All Claim Types with 80 or More Weeks of Total Disability

	Total	Benefit Duration			
		80-89 weeks	90-103 weeks	104 weeks	longer than 104 weeks
Total number of claims	84 100%	25 100%	22 100%	22 100%	15 100%
Permanent total disability	11 13%	3 12%	1 5%	1 5%	6 40%
Vocational rehabilitation plan filed	67 80%	17 68%	20 91%	19 86%	11 73%
Retraining plan filed	8 10%	1 4%	0 0%	4 18%	3 20%
Permanent total or vocational rehabilitation plan filed	72 86%	18 72%	20 91%	20 91%	14 93%
Dispute resolution	73 87%	20 80%	19 86%	19 86%	15 100%
Intermittent work	51 61%	16 64%	17 77%	14 64%	4 27%
Open claim status	37 44%	6 24%	8 36%	16 73%	7 47%

were filed for the lowest and highest duration groups. This may indicate that extra return-to-work effort is applied after 90 weeks of benefits have been received and when a PTD determination is unlikely. This is supported by the finding that, beginning with the 90-103 weeks group, more than 90 percent of claimants either received PTD benefits or had a vocational rehabilitation plan.

Retraining

Retraining is a special type of vocational rehabilitation benefit that provides for extensive education for a new job. TTD claimants can only receive more than 104 weeks of TTD benefit payments if they are

involved in a retraining plan. Among the 84 claimants examined, 8 had filed retraining plans, and 7 of these were TTD claimants. Three of these retraining plans were approved for implementation; these plans were for TTD claimants who received at least 104 weeks of benefits.

Dispute Resolution

Dispute resolution activity was very common among long-duration TD claims. As TD benefit duration increased, the percentage of claims involved in disputes increased, from 80 percent among the 80-89-week claims to 100 percent in the more-than-104-weeks group. Ten of the 11 PTD claims examined involved

dispute resolution activity. It appears that the longer a claim is open, the greater the chance that there will be a disagreement leading to the filing of a dispute or resulting in a stipulation agreement that resolves a number of issues at once.

Intermittent Work

Most (68 percent) of the workers receiving TD benefits for 80-104 weeks made one or more attempts to work between the time of their injury and any final return to work. However, only one-fourth of the workers in the longer than-104-weeks category and one-third of PTD claimants worked at any time following their injuries. It is likely that these claimants had much more serious medical conditions, precluding earlier attempts to work.

Claim File Status

The biggest difference between the duration groups involves open claim file status. Claim file status is an administrative designation. A claim may be kept open for months or even years after a final wage replacement benefit payment because of litigation about the benefit discontinuance. Many injured workers with

closed claims continue to receive medical benefits. More than 70 percent of the claims at 104 weeks were still open, while less than 50 percent of the claims in each of the other duration groups remained open.

Besides continuing wage-replacement benefit payments, there are other reasons why long duration claims remain open. The 37 open TD claims studied here were classified according to the apparent reason for their claim status, based on examination of the file documents. The results are shown in Figure 2.

Only 10 of the 37 claims were open because the claimant was continuing to receive wage-replacement benefits. Eleven claims were involved in the dispute resolution process. Fifteen claims were settled or had a terminating event but the claim had not yet been administratively closed.

People generally think of PTD claims as involving continuing payments of weekly PTD benefits. However, when the files of the 11 PTD claimants studied were examined relative to their open/closed status, only three were still open and involved continuing benefit payments. Two other PTD claims had been

Figure 2
Reasons Files Remain Open

Reason file open	number of claims	percentage of claims
Receiving benefits: temporary total disability	2	5.4%
temporary partial disability	2	5.4%
permanent partial disability	3	8.1%
permanent total disability	3	8.1%
Involved in a dispute resolution process	11	29.7%
Claim settled, file status not yet changed	9	24.3%
Could be closed, reason other than settlement	6	16.2%
Unknown, reason not evident in file	1	2.7%
Total	37	100.0%

settled but were not yet closed. The remainder of the PTD claimants had received settlements closing out their active claim files.

Breaking the 104-week barrier

Nine TTD claims involved more than 104 weeks of TTD. At the time 104 weeks of TTD benefits was reached, one of these claimants was involved in a retraining program, five were involved in final negotiations leading to settlement agreements, and three continued to receive benefits because of insurer oversight or unfamiliarity with Minnesota's workers' compensation laws. Retraining plan status and/or PTD status were among the issues in the five disputes. In two of the three oversight cases, overpayment became a litigation issue.

Injury Severity

As a group, the claimants who received benefits for more than two years had the most severe injuries. Ten of the 15 claims with more than two years of benefit duration were the result of back or spine injuries. Four of these occurred as part of multiple injuries involving other body parts. The back pain often involved pain radiating to the legs. Four claimants had complicating medical conditions such as depression, diabetes or permanent disability from previous injuries. Two of the injuries were the result of car crashes, one resulting in head trauma and the other in paraplegia.

3

Claimant and Injury Characteristics A Comparison of Pre- and Post-1995 Law Change Claims

This section presents comparisons of various claimant, job and injury characteristics of long-duration TD claims before and after the 1995 law change. The long-duration claimants are injured workers with 80 or more weeks of TD benefits.

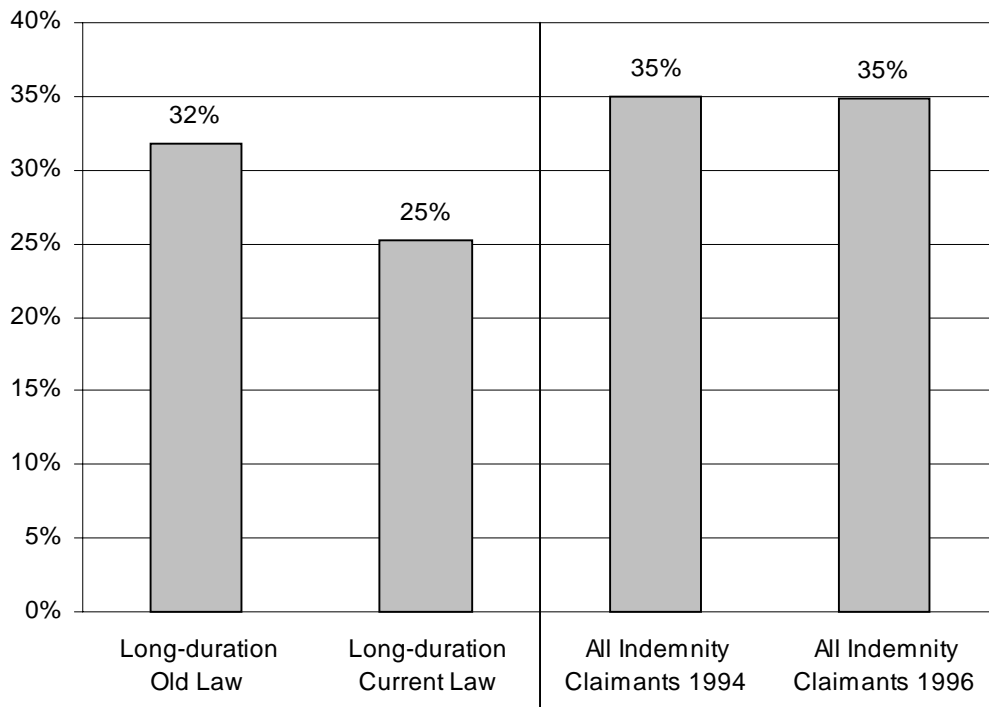
Claimants with injuries which occurred before the law change became effective, October 1, 1995, are compared to claimants with injuries that occurred after the effective date. These claimant groups are referred to as old-law and current-law, respectively. These two groups of long-duration claimants are also compared to all claimants from representative years before and after the law change (1994 and 1996). Appendix A describes the data sources and methodology used to derive the statistics.

Information about the claimant and injury characteristics are shown in Figures 3-10. The bullet points below each figure highlight key points in each figure. Not all categories of each characteristic are displayed; categories with low frequencies were grouped together into an “all other” category. The distributions used in the figures are also presented as tables in Appendix B. The tables indicate which differences between the long-duration groups are statistically significant.

In all comparisons, there were greater differences between the all-claimant distributions and the long-duration distributions than between the old-law and current-law distributions. Nonetheless, the demographic, job and injury characteristics of the claimants with long-duration TD claims under the current law are different, in some important respects, from the characteristics of old-law claimants. Current-law claimants include fewer females, with associated differences in worker industry and occupation. The shift toward more injuries to males and male-dominated job types largely explains the differences in injury characteristics. More fractures and fewer sprains and cumulative injuries are consistent with higher percentages of construction and transportation workers and fewer service and clerical workers among the long-duration claimants.

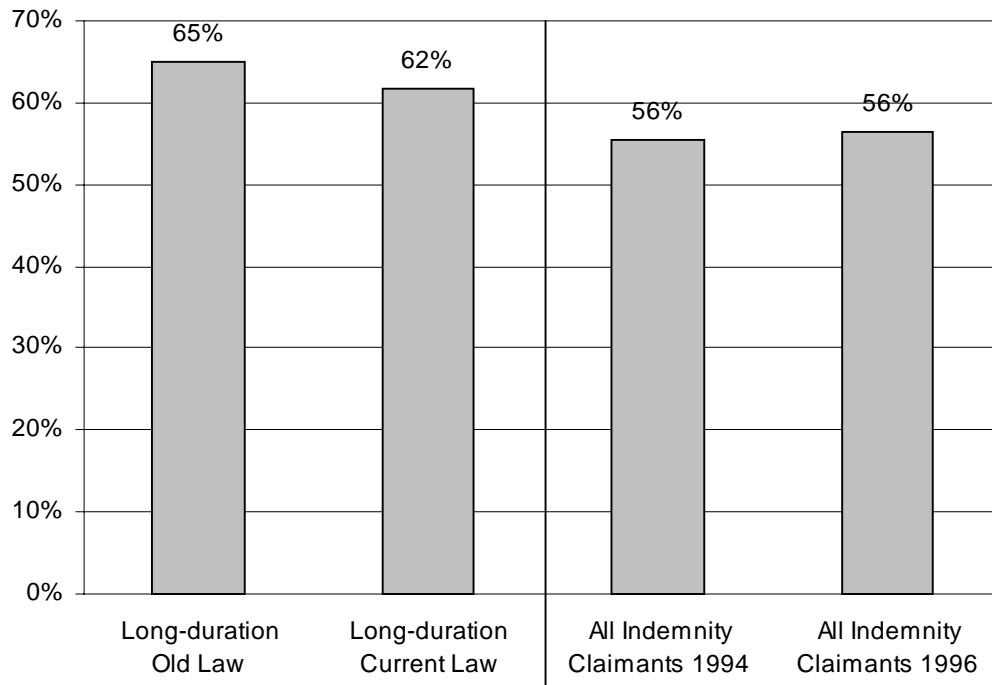
Some of the differences may also be due, in part, to variations in claims development for claimants with different demographic, job and injury attributes. More time is needed for claims to develop in order to fully ascertain the extent of differences between old-law and current-law claims.

Figure 3
Percentage of Female Claimants



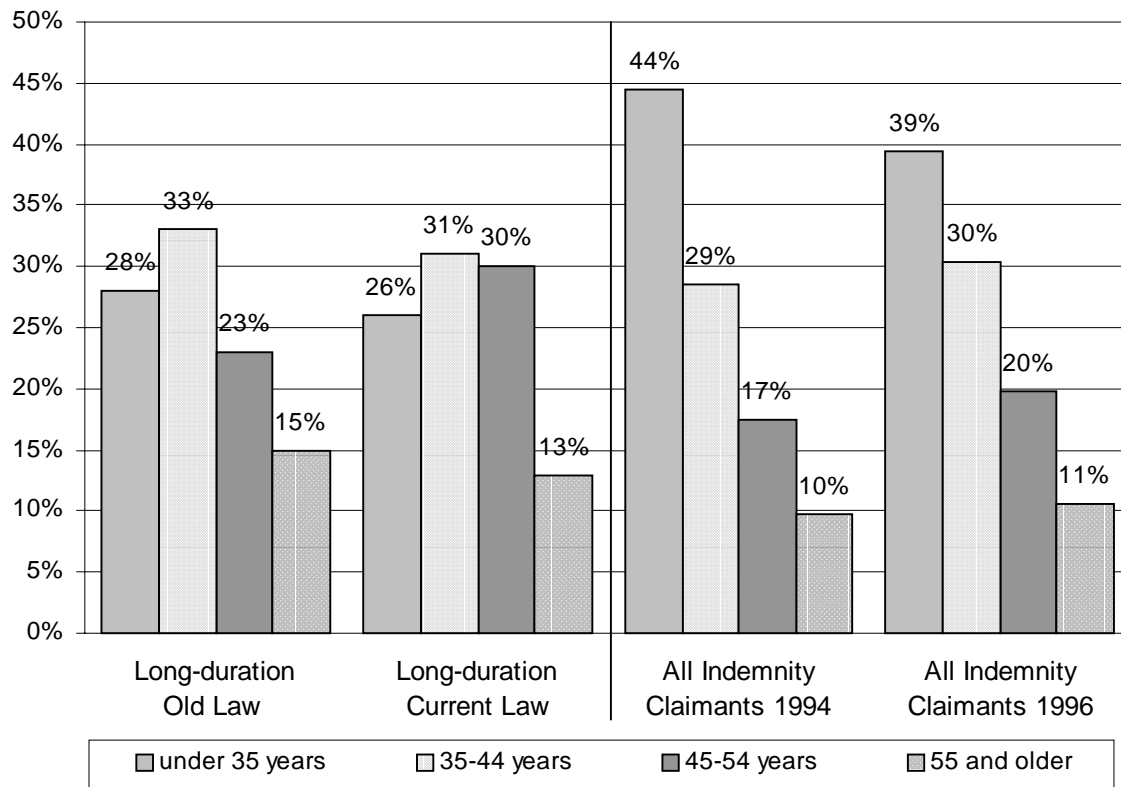
- The percentage of females in the long-duration TTD population declined from about 32 percent under the old law to about 25 percent under the new law.
- The percentage of females among all indemnity claimants remained slightly higher, at about 35 percent between 1994 and 1996.

Figure 4
Percentage of Married Claimants



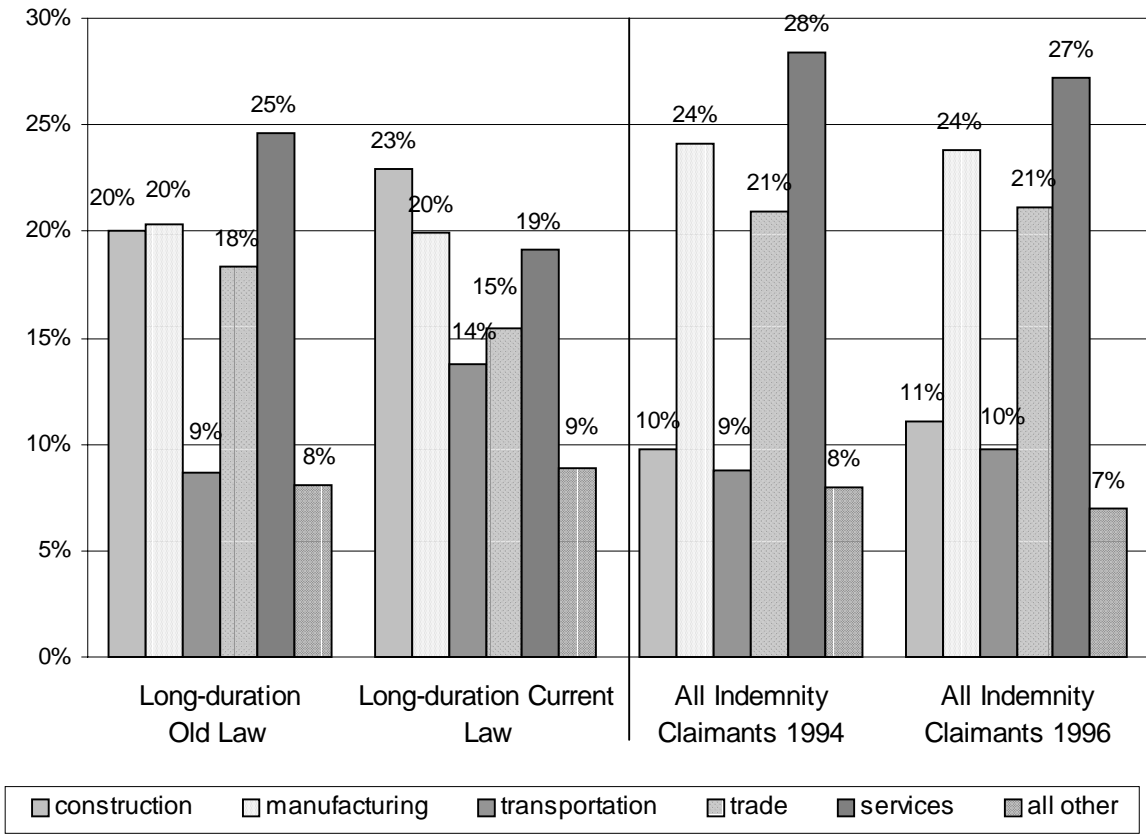
- Injured workers with long-duration claims were more likely to be married than were indemnity claimants in general.
- A smaller percentage of current-law claimants were married than were old-law claimants, although the difference is not significant.

Figure 5
Age Distribution of Claimants



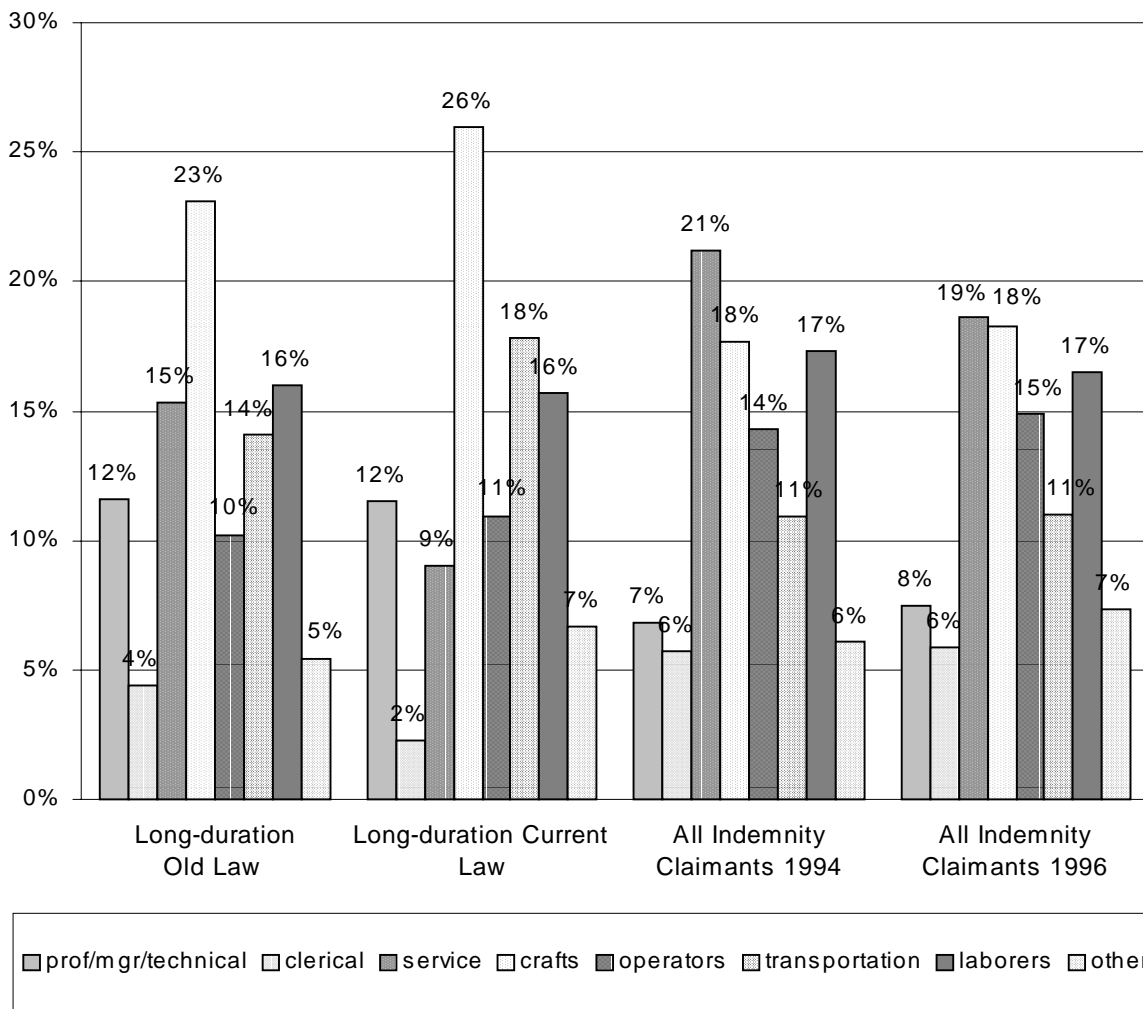
- Long-duration claimants were older than indemnity claimants in general. The median ages for the old- and new-law long-duration claimants were 40.8 and 42.7 years, respectively. The median ages were 36.8 years and 38.2 years, for all 1994 and 1996 claimants, respectively.
- Both long-duration groups had fewer claimants under age 35 years and more claimants over 44 compared to the corresponding distribution of all indemnity claims.
- Among the long-duration claimants, the mean age at injury for the old-law claimants was 42.4 years and the mean age for the current-law claimants was 43.1 years.
- There was a significantly higher percentage of 45-54 year olds and a slightly lower percentage of all other age groups among the long-duration current-law claimants compared to old-law claimants.

Figure 6
Industry Distribution of Claimants



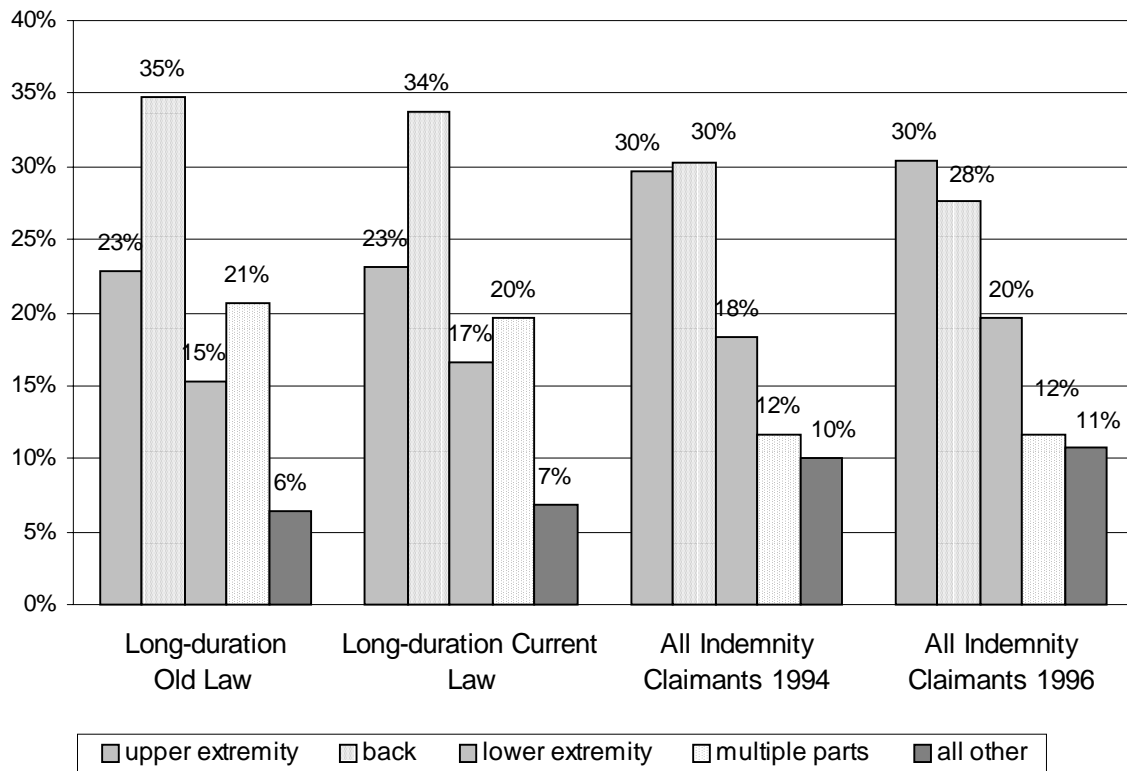
- There are many differences in the industry distributions between the long-duration claimants and all indemnity claimants. The percentage of construction industry workers is the most notable difference. The percentage of construction workers among the long-duration claimants was more than twice the percentage among all indemnity claimants.
- The other noticeable differences are the lower percentages of injured workers in the manufacturing, services and trades industries among the long-duration claimants than among all indemnity claimants.
- The old-law and current-law claimants had significantly different distributions among their industries. Current-law claimants had higher percentages in the construction and transportation industries, and lower percentages in the trade and service industries, compared to the old-law claimants. These shifts were present, to different degrees, among both male and female injured workers.

Figure 7
Occupational Distribution of Claimants



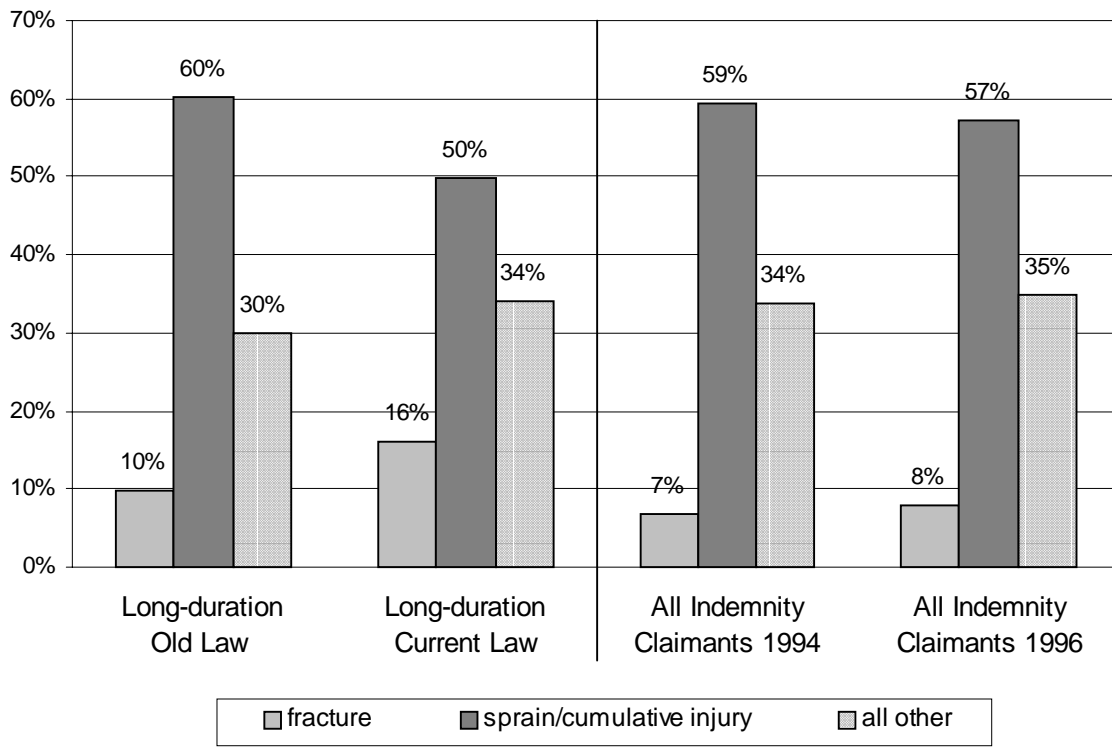
- The distributions of occupations of the long-duration claimants differ markedly from those of all indemnity claimants. Long-duration claimants had higher percentages among crafts, professional/managerial/technical and transportation occupations and lower percentages among clerical, service and operator occupations. These differences likely reflect the differences in industry and gender distributions.
- Among current-law long-duration claimants, there were higher percentages of crafts and transportation workers and lower percentages of clerical and service workers than among the old-law claimants. These occupational differences are consistent with the lower percentage of females among the current-law claimants.

Figure 8
Distribution of Part-of-Body Injured



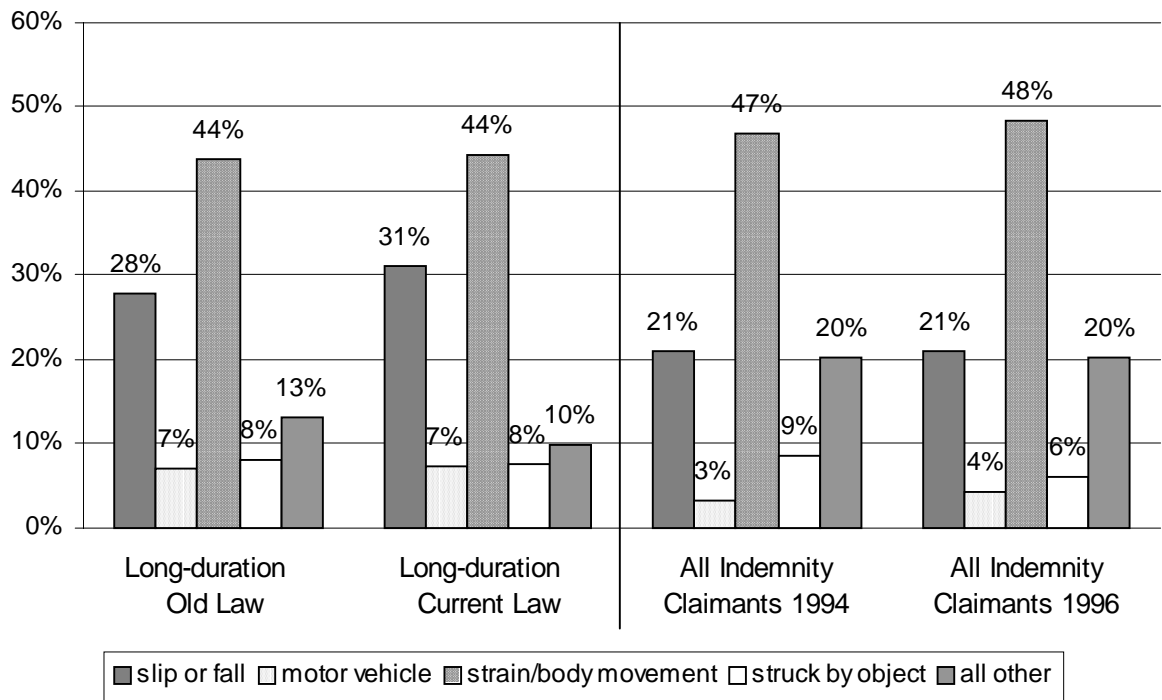
- Old- and current-law claimants had similar distributions of body part injured. These distributions were noticeably different from the injured body part distributions for all indemnity claimants.
- The long-duration claimants' claims were the result of injuries to multiple body parts nearly twice as often as indemnity claims in general. Long-duration claimants were also more likely to report back injuries and less likely to report injuries to their extremities.

Figure 9
Distribution of Nature of Injury



- Long-duration current-law claimants had twice the frequency of fractures and a lower percentage of sprains and cumulative injuries than all 1996 indemnity claimants.
- Current-law claims included more fractures and fewer sprains and cumulative injuries than the old-law claims. Back sprains caused by body movement was the most common injury type for both claims groups.

Figure 10
Distribution of Cause of Accident



- The distributions of old- and current-law claims by cause of accident were similar.
- The percentages of injuries caused by slips and falls and by motor vehicle accidents are higher among the long-duration claimants than the corresponding percentages for all indemnity claimants.

4

Survey of Injured Workers with 52 Weeks of Temporary Total Disability Benefits

During the summer of 1999, the Department of Labor and Industry (DLI) interviewed injured workers who had received, at that time, approximately 52 weeks of TTD benefits. The interviews identified the problems and issues involved in long-duration TTD cases and examined if the 104-week maximum TTD duration limit had affected these claims.

A phone protocol was developed to be used by members of the DLI Customer Assistance unit. The intent of the protocol was to draw out injured workers' views on why they were still disabled and the problems they were facing trying to return to work. Appendix C contains the sample selection, phone protocol and comparison of the respondents and non-respondents.

Due to the small number of completed interviews, the results must be considered preliminary. The interviews revealed that the injured workers face a disparate set of problems that do not lend themselves to a single solution. Injured workers often had serious medical problems and faced a variety of barriers to their return to work. Many of the injured workers were not aware of the 104-week maximum TTD benefit duration. The interview responses are reviewed in more detail below.

Findings

Of the 39 workers surveyed, 6 had returned to work and were only asked about their satisfaction with the department's services. The remainder of the analysis is based on the 33 respondents who were not working. These included nine females and 24 males. Survey responses were analyzed by examining the

distributions of all Yes/No and multiple choice-type questions by gender, presented in Figure 11. Figure 12 presents the frequency distribution of the issues identified by the respondents. Major findings are:

- Thirty-nine percent of respondents were still employed by their date-of-injury employer. However, the proportion differed by employee gender: 67 percent of females were still employed, compared to 29 percent of males.
- Overall, 64 percent of the respondents stayed in touch with their date-of-injury employer and 77 percent stayed in touch with their coworkers. For both items, the percentage of females who maintained contact with their workplace was much higher than for males.
- Thirty-three percent of respondents reported problems with their benefits.
- Eighty-nine percent of respondents were able to get the information they needed about their claims.
- Sixty-one percent of respondents replied that they "have a say" in their claims.
- Only 40 percent of the respondents were aware of the duration limits on their benefits. Another third were unsure of the limits; and the balance were unaware of the limit.
- Eighty percent said they received all the medical care they needed.

Figure 11
Phone Survey Categorical Responses by Claimant Gender [1]

	Males	Females	Total
Employed by date-of-injury employer	7 29%	6 67%	13 39%
Stay in touch with employer	10 52%	8 89%	18 64%
Stay in touch with coworkers	12 71%	8 89%	20 77%
Problems with benefits	8 33%	3 33%	11 33%
Get answers about claim	18 86%	7 100%	25 89%
Have a say in how claim handled	14 61%	5 63%	19 61%
Aware of benefit duration limit	8 36%	4 50%	12 40%
Received needed medical care	17 74%	7 100%	24 80%
Health better than right after injury	3 14%	1 14%	4 14%
Health worse than right after injury	9 43%	1 14%	10 36%
Health problems affecting recovery	8 38%	1 14%	9 31%
Barriers to return-to-work	14 74%	4 57%	18 69%
Expect to return to pre-injury employer	0 0%	2 25%	2 8%
Called department for assistance	7 25%	3 30%	10 26%

1. Percentages are based on number of respondents answering item, which varies from item to item.

- Only four respondents (of the 29 asked) said that their health is better now than right after their injury. Ten respondents said it was worse. Males were more likely to report worsened health than females and to report that health problems were affecting their recovery from the injury.
- Sixty-nine percent of respondents reported barriers to their return to work. A higher percentage of male than female respondents indicated return-to-work barriers.
- All but two respondents said it was unlikely they will return to their pre-injury employment.
- Only 10 respondents had called the DLI for information or assistance. Four of the six who returned to work called, but only six of the 33 non-working respondents called. Of the 10 who called, 1 was not satisfied, 2 were somewhat satisfied, and 7 were very satisfied with the help they received.
- The distribution of respondents' issues,

problems and comments about their claims experience is shown in Figure 12. Injury-related health and medical problems were the most common issues, cited by 58 percent of respondents. Issues identified

by 19 percent of respondents were benefit timeliness and delays, financial hardship and being unemployed or having no job to return to.

Figure 12
Respondents' Issues, Problems and Comments About Their Claims Experience

	Percentage mentioning topic
1. Medical or health problems related to work comp injury	58%
2. Timeliness of benefits, delays in benefit payment	19%
3. Financial hardship	19%
4. Fired, terminated, suspended, unemployed, employer no longer in business	19%
5. No longer physically able to do pre-injury work due to medical severity, complications or restrictions from work comp injury	16%
6. Benefits stopped, suspended	13%
7. Having problems looking for work	13%
8. Work comp benefit inadequacy	10%
9. Poor communications with insurer, other parties	10%
10. Medical or health problems not related to work comp injury	10%
11. Medical service delays, problems	10%
12. Needs more workers' compensation information, system too complex	10%
13. Problems with vocational rehabilitation plan or provider	10%
14. Age, too old for new or past work	7%
15. Lack of other job benefits, insurance	7%
16. Delays in litigation, extended length of claims process	7%
17. Favorable comments, happy with system, treated well	7%
18. Mental health problems, depression	3%
19. Liability, either primary or secondary (relatedness of other health problems)	3%
20. Family problems	3%
21. Other problems	13%

5

The Number and Percentage of Claimants Exhausting Their TTD Benefits

Estimating the number of new TTD claimants each year who will eventually exhaust their TTD benefits entails estimates of 1) the number who would be ineligible for PTD even without the new PTD threshold; and 2) the number who would be made ineligible for PTD by the new threshold. For simplicity, those TTD claimants who are expected never to become eligible for PTD are referred to as “TTD-only” claimants. The analysis below refers to “Group 1” and “Group 2” claimants. Groups 1 claimants are TTD-only claimants who would have remained TTD-only even under the old law and Group 2 claimants are prevented from getting PTD status by the new PTD threshold.

Estimation for Group 1

In order to estimate the number of Group 1 claimants who will exhaust their TTD benefits annually, this study uses information on claims for injuries that occurred just before the limit took effect (October 1, 1995). The approach is to estimate the proportion of these TTD-only cases that had, or will have, more than 104 weeks of TTD benefits. This serves as an estimate of the proportion of claimants likely to exhaust their TTD benefits under the new law.

Figure 13 shows the estimated percentage of TTD-only cases with more than two years of TTD benefits for injury years 1984-1995.³ It

shows that the percentage of TTD-only claimants who received more than two years of benefits fell from 1.6 percent in 1984 to about 0.8 percent in 1995, with a majority of the decrease occurring between 1990 and 1995. This is consistent with findings in the *1998 Minnesota Workers' Compensation System Report* (DLI Research and Statistics unit, January 2000) that average TD duration (TTD and PTD) fell between injury years 1990 and 1995 and was level for 1995-1998.

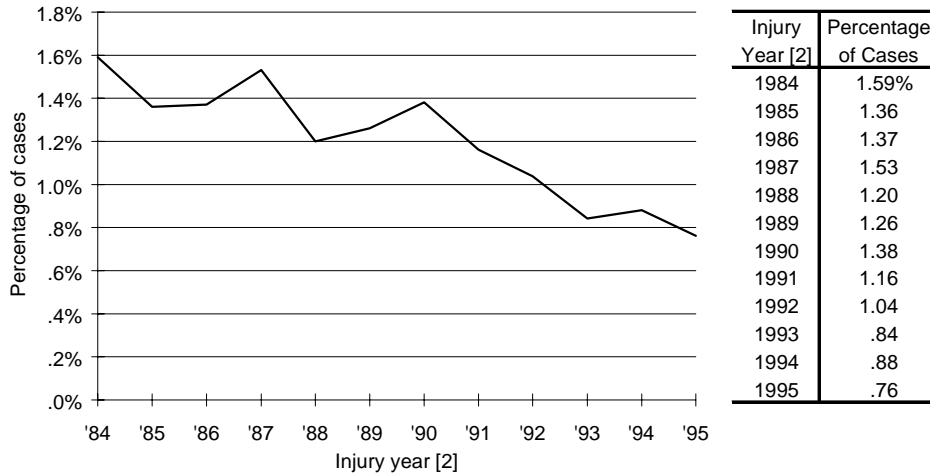
In projecting the percentage of Group 1 claimants that will exhaust their TTD benefits, the central question is whether the trend in Figure 13 would have continued downward, leveled off, or changed direction in the absence of the duration limit. The *1998 System Report* data suggest that the trend likely would have leveled off. Although this is uncertain, it suggests that the best basis for a post-1995 projection is data for injuries just before the limit took effect.

Because of this, and because of major fluctuations in the trend, this analysis uses the average for 1993-1995 to project the percentage of Group 1 claimants who will exhaust their TTD benefits under the 104-week limit. This average is 0.83 percent. Currently, there are about 28,500 new TTD beneficiaries per year.⁴ Applying the 0.83 percent to this figure yields an estimate that about 240 new Group 1 beneficiaries per year

³Because the duration limit took effect on October 1, 1995, the last quarter of 1995 is excluded from that injury year. Figures shown are “developed,” i.e., they are estimates of what the numbers will be when claims are mature. The estimation procedure is outlined in footnote 1 of the figure and further described in Appendix D.

⁴Developed statistic from the DLI database. The number of new TTD beneficiaries has decreased each year since 1991.

Figure 13
Percentage of TTD-Only Cases
With More Than Two Years of TTD Benefits, Injury Years 1984-1995 [1]



1. Data are from the DLI claims database. "TTD-only" cases are TTD cases that will never become PTD (regardless of whether other types of benefits are received). The population of TTD-only cases was obtained by removing PTD cases identified to the DLI Special Compensation Fund from the population of TTD/PTD cases. Since the PTD data are not mature for injury years after 1990, the TTD-only trend for 1991-1995 was projected from a TTD/PTD trend. These numbers are "developed statistics," meaning that they are a projection of what the final numbers will be when claims are mature. They are derived by applying historical rates of claim development to the actual numbers as of March 22, 2000. Estimation procedures are described in Appendix D.
2. The last quarter of 1995 is excluded from injury year 1995.

will exhaust their TTD benefits under the 104-week limit.

This is a ballpark estimate, not a precise figure. Also, it may understate the true figure for Group 1 to the extent that stipulated (negotiated) settlements reduce the duration of TTD benefits recorded in the data used for estimation.

Estimation for Group 2

As previously indicated, Group 2 TTD-only claimants were rendered ineligible for PTD benefits by the 1995 threshold (see footnote 2). It is assumed that all of these claimants will exhaust their TTD benefits under the 104-week limit because they are long-duration cases.

Figure 14 summarizes the estimation of the number of these claimants. Without the threshold, there would be an estimated 280 new PTD cases per year, of which an estimated 50 percent, or 140 per year, would have work-related PPD ratings less than the new PTD threshold.

Because of a 1997 Minnesota Supreme Court decision, the estimation does not stop here. In the Frankhauser case,⁵ the court ruled that for purposes of applying the PTD threshold, non-occupational impairments are to be combined with work-related impairments from the current and prior injuries. This reduces the

⁵Frankhauser vs. Fabcon, Inc., 567 N.W. 2d 533 (Minn. 1997).

number of people affected by the PTD threshold.

No data are available on the extent to which people otherwise ineligible for PTD because of the threshold have been able to achieve eligibility by adding non-occupational impairments to their work-related impairments. DLI staff who are experienced with PTD cases suggest that from 50 to 90 percent of those otherwise excluded by the threshold become eligible by including non-occupational impairments.

Applying these percentages to the 140 annual cases otherwise ineligible gives a range of 10-70 people (rounded to the nearest 10) annually excluded from PTD eligibility by the threshold. It is assumed that all of these claimants will exhaust their TTD benefits

under the duration limit. Given the lack of data, this estimate for Group 2 represents only an educated guess.

Combined Estimate

Combining the 240 annual cases estimated for Group 1 with the 10-70 annual cases for Group 2 gives the estimate that 250-310 new TTD-only claimants per year will exhaust their TTD benefits under the 104-week limit. This represents 0.9 to 1.1 percent of the estimated 28,500 new TTD cases per year for recent injury years. This is an imprecise estimate, especially in view of the lack of data for Group 2. The estimate will be revised in the future as more data become available. It should also be noted that stipulated settlements that are paid as a lump sum reduce

Figure 14
Estimation of Annual Number of Group 2 TTD-Only Cases [1]

1. Estimated annual number of PTD cases barring any effect of the PTD threshold [2]	280
2. Estimated percentage of PTD cases with work-related PPD ratings less than the PTD eligibility threshold [3]	50%
3. Estimated annual number of PTD cases with work-related PPD ratings less than the PTD eligibility threshold (#1 x #2)	140
4. Among cases in #3, the estimated percentage with non-work-related impairments sufficient to meet the PTD threshold when combined with work-related impairment [4]:	
a. Lower-bound estimate	50%
b. Upper-bound estimate	90%
5. Estimated annual number of potential PTD cases rendered ineligible for PTD by the PTD threshold (Group 2 TTD-only cases)	
a. Upper-bound estimate (#3 x [1 - #4a])	70
b. Lower-bound estimate (#3 x [1 - #4b])	10

- "Group 2" TTD-only cases are those that would have been eligible for PTD but are excluded by the PTD threshold established in the 1995 law.
- The annual number of PTD cases reported to the DLI Special Compensation Fund is mature through injury year 1990. The average annual number of these cases for injury years 1988-1990 was 355. Between the periods 1988-1990 and 1996-1998 (injury years), the average annual number of indemnity claims fell by 21 percent. Applying this percentage to 355 gives the estimate of 280 PTD cases per year for 1996-1998, barring any effect of the PTD threshold.
- DLI data for PTD cases for injury years 1990-1995 show 65 percent of these cases having PPD ratings less than 15 percent. However, these ratings are understated in many cases because they often do not reflect ratings incorporated into stipulated settlements. Therefore, the 65 percent figure is reduced to 50 percent. (For simplicity, the 15 percent threshold was used for this purpose because it is the middle of the 13/15/17 threshold. Because of the wide dispersion of PPD ratings, this has little effect on the result.)
- Under a Minnesota Supreme Court ruling (Frankhauser), non-occupational impairment is combined with work-related impairment for purposes of applying the PTD threshold. There are no concrete data behind the percentages shown. They are based on observations of DLI staff experienced with PTD cases.

the reported duration of benefits. This reduces the number of long-duration claimants in the database and biases downward both the projected effect of the duration limit and the observed effect of the limit, which is discussed in the next section.

Observed Effects in Post-Law-Change Claims

The effects of the 104-week limit can be observed in data for current-law injuries. Figure 15 shows the duration of total disability (TTD and/or PTD) by injury year. The numbers are as of March 22, 2000 (the date of analysis) and are not developed. Duration is measured in quarter-years, with partial quarters rounded upwards.⁶ In contrast with Figure 13, PTD cases are not removed because of data limitations.⁷

⁶One reason for using calendar quarters as the unit of analysis, rather than a shorter unit such as weeks, is to reduce the random fluctuations that would arise with smaller numbers of cases within smaller time periods. A second reason is that some claimants affected by the duration limit may not use all of the 104 weeks available. For example, if they know their benefits will end after 104 weeks, they may accept a job offer before reaching the limit if they are afraid that other offers may not be as good. Using quarters as the duration category combines these people with those who go all the way to the limit.

Cases as much as two weeks above a duration quarter are counted in the lower quarter. This is to capture the cases that go slightly (a week or two) beyond 104 weeks in the eight-quarter category. Data not shown here indicate that there are more cases with 105-106 weeks of TD benefits for injuries after October 1, 1995 than for earlier injuries. This may reflect insurer leniency, lack of precision in applying the limit, or data errors.

In order for injury years to coincide with the effective date of the 1995 law change, they are defined to run from October 1 to September 30. Injury year 1996, for example, is October 1, 1995 through September 30, 1996 — the first injury year after the effective date.

⁷PTD cases can be identified using DLI Special Compensation Fund data relating to the second injury and supplementary benefit programs. However, these programs ended after injury years 1992 and 1995, respectively. This means that PTD cases cannot be removed from post-1995 injuries. In addition, the number of PTD cases is not mature for injury years after 1990.

For recent injury years, the number of total disability (TD) cases shown in Figure 15 is less than the annual figure of 28,500 indicated above because the number 28,500 is developed (an estimate representing full maturity).

One thing immediately apparent in Figure 15 is that the vast majority of TD cases last one quarter or less, as shown by the numbers in the one-quarter column as compared with the total column.

The effect of the 104-week limit can be seen by looking at the eight-quarter column in relation to adjacent columns and comparing injury years 1996-1998 with earlier years. For 1996-1998, there is a sharp increase in the eight-quarter column relative to the seven-quarter column, which is absent for prior injury years. The increase is less pronounced for 1998 than for 1996 and 1997 because the 1998 cases are less mature. The cases at higher duration levels (nine or more quarters) for these three years are either PTD cases or TTD cases that continued beyond the limit because of approved retraining or perhaps insurer leniency. Some of these cases may also be data errors. (Some of the cases with eight or fewer quarters may also be PTD.)

The relatively high numbers of cases in the eight-quarter column for 1996-1998 — 195, 172, and 68 — indicate the effect of the 104-week limit. The corresponding numbers in the seven-quarter column for the same three injury years are 98, 96, and 54, respectively. Using data for injury years 1990-1997, it is estimated that in the absence of the 104-week limit, the numbers of cases in the eight-quarter column for 1996 and 1997 would have been about 69 and 56, respectively.⁸ Thus,

⁸For injury years 1990-1997, the number of cases declines from one column to the next (starting with the three-quarter column) by a fairly stable percentage (through the seven-quarter column for 1996 and 1997). The “expected” numbers of cases in the eight-quarter column for 1996 and 1997 (in the absence of a duration limit) were estimated by applying an average rate of decline for injury years 1990-1997 (through 7 quarters for 1996 and 1997) to the numbers in the five-, six-, and seven-quarter columns for 1996 and 1997.

Figure 15
Quarters of TTD and/or PTD by Injury Year [1]

Injury Year [2]	Number of Cases											Total
	Quarters of TTD/PTD [3]											
	1	2	3	4	5	6	7	8	9	10		
1990	30,846	2,265	1,132	820	571	395	277	195	122	84	37,141	
1991	30,070	2,326	1,195	878	541	385	239	186	112	92	36,418	
1992	28,647	2,221	1,032	678	525	305	199	158	96	68	34,236	
1993	27,364	2,003	886	576	322	239	162	97	78	67	32,002	
1994	26,577	1,687	776	479	285	205	140	93	70	48	30,550	
1995	25,160	1,469	713	423	247	152	109	83	40	43	28,588	
1996	24,239	1,539	669	384	268	145	98	195	46	15	27,643	
1997	24,051	1,495	704	344	236	156	96	172	25	3	27,303	
1998	23,846	1,444	637	340	220	121	54	68	3	2	26,750	

1. Data are from the DLI claims database as of March 22, 2000. In order to retain comparability across injury years, PTD cases for 1995 and earlier years are not removed. Numbers are not fully mature and will increase in future tabulations, especially for more recent injury years.
2. In order for injury years to coincide with the effective dates of law changes, they are defined here to run from October 1 through September 30. Injury year 1996, for example, is October 1, 1995 - September 30, 1996.
3. The category label denotes the top of the range. For example, "8" means more than seven but not more than eight quarters. However, cases within two weeks above a duration category are counted in that lower category. For example, a case with eight quarters and two weeks of benefits is counted as having eight quarters. This is in order to capture the cases that go slightly (a week or two) beyond 104 weeks in the eight-quarter category. (Cases with seven quarters and two weeks are counted as having seven rather than eight quarters.) The numbers of cases with more than ten quarters of benefits are not shown.

as far as could be detected by the available data as of March 22, 2000, about 123 cases for injury year 1996 (195 less 72) had been affected by the limit, and about 103 cases for injury year 1997 (172 less 69).

These numbers are far below the 250-310 cases per year estimated in the previous section. The numbers for post-1995 injuries will probably increase in future tabulations as claims and data mature. Maturation is an issue because TTD may not begin immediately after the injury (TPD may occur first), it may occur in intermittent spells, and time lags occur in reporting data to DLI.

TTD-Only Beneficiaries Who Reach the 104-Week Limit

Any of several things may happen to TTD-only beneficiaries who reach the duration limit. Some may find employment. If this employment pays less than their pre-injury wage, they will be eligible for TPD benefits (provided that the lower pay reflects true earning capacity and the TPD time limit is not exhausted). Some who reach the 104-week limit may have received vocational rehabilitation services to improve their chances of finding gainful employment. Some may not secure a job and thus have to rely on other means of financial support such as family members, savings or public assistance.

Figure 16 presents data on TPD receipt and vocational rehabilitation services for claimants with 96-106 weeks of TD benefits ("long-duration TD claimants") for injury years 1993-

Figure 16
Cases with 96-106 Weeks of TTD and/or PTD:
Number and Percentage With TPD and With
Vocational Rehabilitation Services, Injury Years 1993-1997 [1]

Injury Year [2]	Total Cases	With TPD After Last TTD/PTD	With Any TPD	With Voc Rehab
1993	68 100%	29 43%	48 71%	46 68%
1994	69 100%	29 42%	53 77%	57 83%
1995	61 100%	22 36%	42 69%	48 79%
1996	177 100%	48 27%	112 63%	148 84%
1997	159 100%	22 14%	82 52%	146 92%

1. Data are from the DLI claims database as of March 22, 2000. In order to retain comparability across injury years, PTD cases for 1995 and earlier years are not removed. Numbers are not fully mature, and will increase in future tabulations, especially for more recent injury years.
2. In order for injury years to coincide with the effective date of the 1995 law change, they are defined here to run from October 1 to September 30. Injury year 1996, for example, runs from October 1, 1995 through September 30, 1996.

1997.⁹ Cases with 96-106 weeks of benefits are examined (not just those with 104 weeks) because some beneficiaries, recognizing the approaching termination of their TTD benefits, may accept a job offer and end their TTD receipt before reaching the limit or may receive benefits for a week or two beyond 104 weeks.

Figure 16 shows that among long-duration TD claimants, the percentage who receive TPD benefits after their last TD benefit was 36-43 percent for injury years 1993-1995 and 14-27 percent for 1996-1997. The percentages for the more recent years will rise as claims mature. These numbers also do not fully count the cases with post-injury earnings because

they exclude cases where these earnings are at least as great as before the injury.

The percentage of long-duration TD claimants with TPD benefits at any time (before or after the end of TD benefits) is higher — 63 and 52 percent for injury years 1996 and 1997, respectively. Thus, among the 1996 injuries, 36 percent (63 percent less 27 percent) had received some TPD before reaching 104 weeks but not (or not yet) afterwards. For 1997 injuries, the analogous figure was 38 percent (52 percent less 14 percent).

These figures indicate that a substantial proportion of claimants who reach the limit, have some earning capacity after the injury. Moreover, the percentages would almost certainly be higher if PTD cases were removed.

Another item of interest is the proportion of claimants exhausting their TTD benefits who received vocational rehabilitation services.

⁹As in Figure 15, injury years are defined to run from October 1 to September 30 (in order to coincide with the October 1, 1995 effective date of the duration limit), and PTD cases are not removed because of data limitations.

Among the 1996 and 1997 cases with 96-106 weeks of TD benefits, 84 and 92 percent, respectively, had received vocational rehabilitation services (as indicated by a filed or closed vocational rehabilitation plan). These percentages are actually somewhat higher than for the earlier injury years shown.

6

Conclusion

This study estimates that approximately 1 percent of the new TTD beneficiaries (between 250 and 310) annually will exhaust their TTD benefits and be ineligible for PTD benefits. These long-duration claimants had multiple points of contact with the system, often received vocational rehabilitation services, and were involved in some form of dispute resolution. Long-duration TTD claimants are more likely to be older males, more likely to work in construction and more likely to have injuries to their backs or have multiple injuries.

A majority of the claimants worked at some point following their injury. The analyses found a high prevalence of vocational rehabilitation services among the long-duration claims. However, there appears to be little use of retraining.

The injured workers who were surveyed had a wide variety of problems which do not lend themselves to a single solution. However, some areas to focus on to address these problems may include: better and more timely education on how the workers' compensation system works and access to information about retraining benefits when it is clear the worker will not be returning to the date-of-injury employer.

These findings suggest that the 1995 law changes setting the 104-week duration limit for TTD benefits affect a relatively small group of claimants. These injured workers had intensive interactions with multiple parties in the workers' compensation system. Nearly all enlist attorneys to help deal with the legal and benefit issues concerning their claims. The insurer, attorneys, vocational rehabilitation providers and health care

providers file many documents with the department. These injured workers do not appear to have been ignored by insurance companies.

These findings raise additional issues and questions. What happens to the injured workers who exhaust their benefits at 104 weeks? How many receive other governmental social insurance benefits? How many are able to return to work? A future extension of this study will use data from the Minnesota Department of Economic Security to analyze the employment experience of TTD-only claimants who exhaust their benefits.

The findings presented in this report, there are broader policy questions that need to be addressed. Why are there claimants who reach the point of exhausting their TTD benefits at 104 weeks? Are the parties using the workers' compensation system resources effectively to help resolve these claims? Based on information in this report, DLI will continue to seek answers to these questions with business and labor stake-holders.

Conducting these analyses has also raised issues related to providing the statistics presented in this report. Reliable estimation of the number of claimants who will exhaust their benefits depends on two factors: database quality and an accurate count of PTD claims. An investigation into database quality showed that the current number of long-duration TTD claimants may be almost 20 percent lower than a straightforward search of the database would provide. DLI needs to devote adequate resources toward improving the quality of its database in order to provide the highest possible information to policymakers.

Tracking how the number of PTD claims has changed requires more claims development time. Improved estimates of the number of annual PTD claims prior to and following the law change will lead to improved estimates of the number of claims affected by the TTD duration limit.

Appendix A

Claims Selection, Data Quality and Technical Notes

Claim Selection for the Analysis of First-Quarter 1996 Claims

The analysis presented in Chapter 2 of this report is based on all claims in the DLI workers' compensation electronic claims database which indicated both an injury date between January 1 and March 31, 1996 and 80 or more weeks of TD benefits. Duration was determined based on information received through December 1999. The analysis of these claims was based on the study of both the summary information in DLI's electronic database and the more detailed information found in claim file documents.

A one-quarter time period was chosen for analysis to a) keep the study manageable in size (the manual examination of claims files is tedious and time-consuming), and b) save having to determine a claims-sampling procedure. The average 100 new long-duration claims received in a quarter is sufficient to provide an indication of tendencies, and the direct use of the "universe" of claims in a quarter saves having to make inferences about the universe from a sample. Although the last quarter of 1995 would have provided the most mature claims under the 1995 law change, this quarter was not used because transitional issues might cloud the analysis.¹ The first quarter of 1996 was chosen in order to provide the most mature claims possible while avoiding possible transitional issues.

Claims from the first quarter of 1996 were about four years old at the time of analysis.

¹For example, some insurers may not have developed processes for stopping TTD benefits at 104 weeks.

Because of the time needed to report information, the data probably do not fully reflect all claims experience.

Examination of the electronic database initially identified 94 claims meeting selection criteria (injury in the first quarter of 1996 and 80 or more weeks of TD benefits). Examination of other claim file documents however revealed 5 claims with incorrect TD duration information and 5 more claims that were associated with an additional, earlier (pre-law-change) claim which confused the duration calculation. Subtracting these 10 claims left 84 claims for analysis.

The remaining claims were divided into four duration groups:

- 1) 80-89 weeks (25 claims);
- 2) 90-103 weeks (22 claims);
- 3) 104 weeks (22 claims); and,
- 4) longer than 104 weeks (15 claims).

Claim Selection and Comparison Methodology for the Claim Characteristics Analysis

The analysis presented in Chapter 3 of this report is based on all claims in the DLI workers' compensation electronic claims database which indicated both an injury date between January 1, 1993 and December 31, 1997 and 80 or more weeks of TD benefits. Duration was determined based on information received through December 1999. The data were edited to remove claims with improperly-recorded benefit durations.

After editing, 1,340 old-law claimants and 658 current-law claimants remained for study. The large difference in the number of old-law and current-law claimants is partly due to using 11

quarters of old-law claimants, compared with 9 quarters of current-law claimants. Also, old-law claims had more time to reach the 80-week threshold. Due to this development difference, the post-1995 law change claims statistics are considered preliminary.

Most of the frequency distributions for the 1994 indemnity claims were taken from the *Minnesota Workers' Compensation 1995 System Report* (Minnesota Department of Labor and Industry, 1998). Most of the frequency distributions for the 1996 indemnity claims were taken from the *Minnesota Workers' Compensation System Report 1998, Part 3: Claimant and Injury Characteristics* (Minnesota Department of Labor and Industry, 2000). Statistics that were not previously published were calculated directly from the claims database. There were approximately 37,000 indemnity claims based on 1994 injuries, and 33,900 indemnity claims based on 1996 injuries.

Data Quality and the Estimation of Long-Duration Claims

As with all large databases, DLI's workers' compensation claims database contains some errors. As indicated above, 10 out of the 94 first-quarter 1996 claims selected from the electronic database had incorrect duration data. In addition, examination of the 2,078 claims with 80 or more weeks of TTD benefits and injury dates between 1993 and 1997 found 79 claims with errors that resulted in revising their TTD durations to less than 80 weeks.

As indicated in the conclusions of this report, reliable information on the number of claimants who will exhaust their benefits depends, among other things, on the availability of trustworthy data in the DLI electronic claims database. The incomplete analysis above, however, suggests that a significant percentage of cases identified in a straightforward search of that database do not actually meet the selection criteria. It is likely that there are also long-duration cases in the

electronic database that were not flagged due to data error.

Further study of this issue is warranted, leading possibly to the devotion of greater resources to database quality assurance. In spite of the data errors described, DLI is confident the findings are essentially accurate and provide a sound basis for policy discussion.

Appendix B

Percentage Distributions and Statistical Significance of Characteristics

Figure B-1 shows more precise numbers for the characteristics graphed in Figures 3-7 and Figure B-2 shows similar information for the injury characteristics graphed in Figures 8-10. The statistical significance of the difference of the distributions of each characteristic between the old law and current law long-duration claimants is shown in the right-most column. Statistical significance was evaluated using Fisher's exact test for the gender and marital status comparisons and the chi-square distribution for the remaining items. Statistical significance does not necessarily indicate that the differences are meaningful.

Figure B-1

Percentage Distributions of Claimant and Job Characteristics

	All Indemnity Claimants		Long-Term Claimants		Statistical Significance of Old Law and Current Law Long- Duration Claimant Difference
	1994	1996	Old Law	Current Law	
Female	35.0%	34.8%	31.8%	25.2%	<.01
Married	55.5	56.4	65.1	61.8	not significant
Age at injury					<.05
under 35 years	44.4	39.4	28.2	25.5	
35-44 years	28.5	30.3	33.2	31.3	
45-54 years	17.4	19.8	23.4	29.7	
55 and older	9.7	10.5	15.2	13.5	
Industry					<.001
construction	9.8	11.1	20.0	22.9	
manufacturing	24.1	23.8	20.3	19.9	
transportation	8.8	9.8	8.7	13.8	
trade	20.9	21.1	18.3	15.4	
services	28.4	27.2	24.6	19.1	
all other	8.0	7.0	8.1	8.9	
Occupation					<.001
prof/mgr/technical	6.8	7.5	11.6	11.5	
clerical	5.7	5.9	4.4	2.3	
service	21.2	18.6	15.3	9.0	
crafts	17.7	18.3	23.1	26.0	
operators	14.3	14.9	10.2	10.9	
transportation	10.9	11.0	14.1	17.8	
laborers	17.3	16.5	16.0	15.7	
other	6.1	7.3	5.4	6.7	

Figure B-2
Percentage Distributions of Injury Characteristics

	All Indemnity Claimants		Long-Term Claimants		Statistical Significance of Old Law and Current Law Long-Duration Claimant Difference
	1994	1996	Old Law	Current Law	
Part of body injured					not significant
upper extremity	29.7%	30.4%	22.8%	23.1%	
back	30.3	27.7	34.7	33.8	
lower extremity	18.3	19.6	15.3	16.6	
multiple parts	11.6	11.6	20.7	19.7	
all other	10.1	10.7	6.4	6.8	
Nature of injury					<.001
fracture	6.7	8.0	9.8	16.2	
sprain/cumulative injury	59.4	57.1	60.3	49.9	
all other	33.9	34.9	29.9	34.0	
Cause of accident					not significant
slip or fall	20.9	21.0	27.8	31.2	
motor vehicle	3.3	4.2	7.0	7.3	
strain/body movement	46.8	48.3	43.8	44.3	
struck by object	8.7	6.2	8.2	7.5	
all other	20.3	20.3	13.2	9.8	

Appendix C

Phone Survey Sample Selection and Respondent Analysis

In July 1999, 199 workers injured between May and August 1998 were identified through DLI's workers' compensation claims database. The database indicated that these injured workers were receiving TTD benefits since soon after their injuries, had not returned to work for more than ten weeks since their injury, and were currently receiving TTD benefits. This list was sent to the Customer Assistance unit for further file review before mailing the cover letter and phoning the injured workers. There are often documents in the claim file which may indicate current benefit and work status.

The file review resulted in identifying 125 injured workers who met the inclusion criteria. These injured workers were mailed letters and phone contact was attempted by the Customer Assistance unit during August 1999. These injured workers are referred to as the "selected claimants."

Up to five phone calls were attempted to contact the selected claimants. Calls were made between 9 a.m. and 5 p.m. A total of 39 selected workers were contacted (the "respondents"), a 31 percent response rate. The remaining 86 claimants are called "nonrespondents." No contacted workers refused to participate. While six of the 39 respondents had returned to work, it is not known what this percentage is among the workers not surveyed.

The phone protocol used by the interviewers is presented later in this appendix. The interviews were loosely structured, intended to draw out the claimants' views on their disability and the problems they face. The interviewers were instructed that it was not necessary to ask each question if the claimant had already provided a suitable response in a comment to an earlier question.

Comparison of Respondents, Nonrespondents, and All Indemnity Claimants

- The respondents were older at the time of injury than were the nonrespondents. The respondents had one-third the percentage of workers under age 30 and twice the percentage of workers age 50 and older as did nonrespondents. The mean age for respondents was 46, compared to 39 for nonrespondents, which is a statistically significant difference. The mean age for all 1998 indemnity claimants was 39 years.
- There were no gender differences among respondents and nonrespondents.
- There were no differences in the part of body injured. The selected claimants had a higher percentage of multiple part injuries (15 percent) than among all indemnity claimants (11 percent).
- The respondents had a smaller percentage of cuts, sprains and cumulative trauma injuries, and a higher percentage of multiple and unknown injury types than did the nonrespondents. A major difference with all indemnity claimants is the percentage of fractures: 15 percent among the selected claimants and 10 percent for all claimants.
- Respondents were more likely to be in construction and less likely to be in manufacturing industries than the nonrespondents. The overall industry distribution of the selected workers is different from the industry distribution of all indemnity claims: The selected claimants had 20 percent in construction, 18 percent in manufacturing and 22 percent in services, compared to 13, 22,

and 27 percent, respectively, among all claimants.

- Respondents were more likely to be in the professional/managerial/technical occupation category than the nonrespondents. Otherwise, there were no differences.
- Respondents were more likely to reside in the seven-county metropolitan area than the nonrespondents (42 percent vs. 35 percent). However, the selected claimants is very different than all indemnity claimants. For all indemnity claimants, 51 percent lived in the metro area, compared to 37 percent of the selected claimants. This indicates that non-metro area claimants are slightly more likely to remain out of work for one year than are metro-area claimants.

- Overall, 46 percent of the selected claimants had a vocational rehabilitation plan filed. However, 88 percent of the respondents were receiving or had received vocational rehabilitation services, compared to 36 percent of nonrespondents.

A major problem exists due to the small size of the sample. It is not possible to generalize from this limited data set to the entire population of injured workers receiving benefits for one year or longer. There are also too few cases to control for differences in occupation and age, given the possible gender differences. Therefore, it is entirely possible that differences in one or more of these characteristics may be the cause of differences in some of the responses.

52 Week TTD-Employee Phone Protocol

employee id # _____

1. A) Are you still employed by the same company you worked for when you were injured?
Yes No Unsure/Unknown Not Answered Not Asked
- B) Do you stay in touch with that employer?
Yes No Unsure/Unknown Not Answered Not Asked
- C) Do you stay in touch with any of your former coworkers?
Yes No Unsure/Unknown Not Answered Not Asked
2. A) Have there been any problems related to your benefits?
Yes No Unsure/Unknown Not Answered Not Asked
- B) What benefits were involved?
- C) What were the problems?
- D) How have these problems affected you and your family?
3. A) Have you been able to get answers or information you need about your claim?
Yes No Unsure/Unknown Not Answered Not Asked
- B) What problems have you had? (Note who was involved)
- C) Has anyone been especially helpful to you? (Name or role) _____
4. A) Do you feel you have a say in how your claim is being handled?
Yes No Unsure/Unknown Not Answered Not Asked
- B) Why not?
5. A) Are you aware that there are time limits on the benefits you may be able to receive?
Yes/know limits Yes/unsure of limits No Unsure/unknown Not Answered Not Asked
- B) Do you want me to have someone call you back with information about that?
Yes No
6. A) Have you been able to get the medical care you feel you need?
Yes No Unsure/Unknown Not Answered Not Asked
- (If “No,” continue to 6B, else go to 6C)
- B) Why?

C) Compared to how you felt after your injury, is your overall health:
better, the same (or) worse?

(Ask for an explanation if one has not already been provided.)

7. A) Are there other health problems which might be affecting your recovery?
Yes No Unsure/Unknown Not Answered Not Asked

B) What are they?

8. A) Is there anything (else) getting in the way of your recovery?
Yes No Unsure/Unknown Not Answered Not Asked

(If yes, probe for type of problem(s).)

9. A) Why do you think you aren't back to work?

B) Is there anything (else) getting in the way of your return to work? (Yes-no if provided info, then record response)

Yes No Unsure/Unknown Not Answered Not Asked

C) What would need to happen for you to return to work?

D) Do you think you will be returning to your former workplace?

Yes No Unsure/Unknown Not Answered Not Asked

10. A) Have you called this department to try to get information or assistance with your claim?

Yes No Unsure/Unknown Not Answered Not Asked

B) How satisfied were you with the help you received from the department?

Very satisfied Somewhat satisfied Not satisfied

C) Why were you not satisfied?

Appendix D

A Comparison of the Estimates from Closed-Claim Data and from Developed Injury year Data

This appendix describes and compares the procedures behind two different DLI Research and Statistics unit estimates of the proportion of TTD cases that will be affected by the 104-week limit: the previous estimate, which used closed-claim data, and the current estimate, which uses developed injury year data.

Earlier Analysis — Closed-Claim Data

Previous estimates by Research and Statistics (unpublished) were derived from a closed-claim analysis — a widely used method where mature claims are needed. That analysis examined claims closed in 1996 and prior years.¹ It indicated that about 2 percent of closed claims with total disability (TTD and/or PTD) benefits had more than 104 weeks of either or both benefit types. The TTD and PTD benefits had been combined in that analysis because they are combined in the DLI database. The “2 percent” figure had been put forth with the qualification that some portion of it represented PTD cases, but that the size of that portion was uncertain. Currently, as indicated by developed statistics from the DLI database, there are about 28,500 new total disability (TD) cases per year. Combining this with the 2 percent figure gave the estimate that as many as 550-600 TTD cases per year could be affected by the 104-week limit, but that the true figure would probably be less with PTD cases removed.

¹Many claims closed in 1996 involved injuries that occurred after the effective date. However, since the last day of 1996 was only one and a quarter years after the effective date, the limit would not affect those claims.

Present Analysis — Developed Injury year Data

The present analysis takes advantage of PTD cases identified (for purposes of the supplementary benefit and second injury programs) in the Special Compensation Fund (SCF) portion of the DLI database. These PTD cases are removed from the population of TD cases to obtain the population of TTD-only cases. However, some PTD cases may remain because they are not supplementary benefit or second injury cases and are therefore not identified to the SCF.

The present analysis also differs from the previous one in another important respect: in estimating the trend in Group 1 TTD-only claims, it uses developed injury year data rather than closed-claim data. Developed statistics are estimates of what the numbers will be when claims are mature, derived by applying observed historical rates of claim development to current (immature) claims statistics. This approach is widely used in the insurance industry. As discussed below, it has the advantage of providing usable data for recent injury years.

The present analysis was hampered, however, by the fact that the number of PTD claims from the SCF was mature only through injury year 1990. As a result, the trend in Group 1 TTD-only claims could not be constructed directly for later injury years. This necessitated a two-part approach to estimating this trend. The first part was to construct the developed trend in TD claims for injury years 1984-1995. The second part was to use this

trend to extrapolate the trend in TTD-only claims from 1990 through 1995.

Figure D-1 shows, for injury years 1984-1995, the percentage of TD cases with more than two years of TD benefits. Two of the series are the actual numbers as of February 1999 and March 2000. The third series is the "developed" version, derived by calculating the rate of development (or growth) between the two series of actual numbers and applying it to the actual numbers as of March 2000.

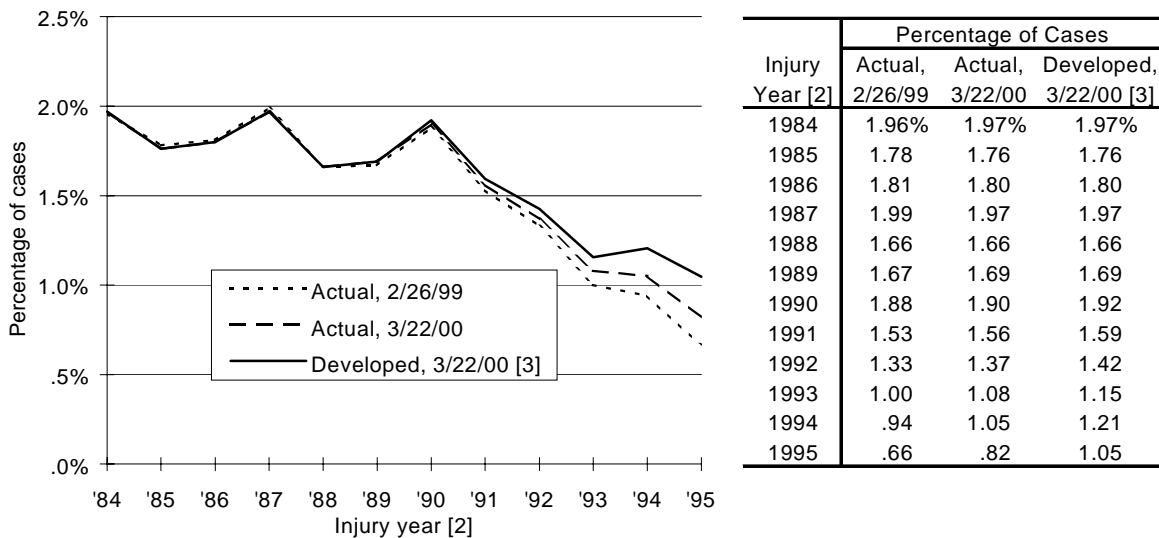
The figure shows that for injury year 1989 and earlier, the percentage of cases with more than two years of TD benefits is essentially mature, in that there is negligible difference between the February 1999 and March 2000 tabulations. For injury year 1990 onward, the actual data are not fully mature, as evidenced by an increasing gap between the two series of actual numbers. Thus, the developed series follows the March 2000 numbers through injury year 1989 and is progressively higher

than those numbers for more recent years.

Figure D-2 shows how the percentage of TTD-only claims with more than two years of TTD benefits was projected for injury years 1991-1995, given that actual data were available only through 1990. The series shown are (1) the developed percentage of TD cases with more than two years of benefits for 1984-1995 (from Figure D-1), (2) the percentage of TTD-only cases with more than two years of TTD benefits for 1984-1990, (3) the ratio of the TTD-only trend to the TTD/PTD trend, and (4) an extrapolation of the TTD-only trend from 1990 through 1995.

The TTD-only trend through injury year 1990 was constructed by excluding PTD cases identified to the SCF from the population of TD cases and computing the percentage of the remaining cases with more than two years of benefits. A developed version of this trend was constructed, but it was negligibly different from the undeveloped version.

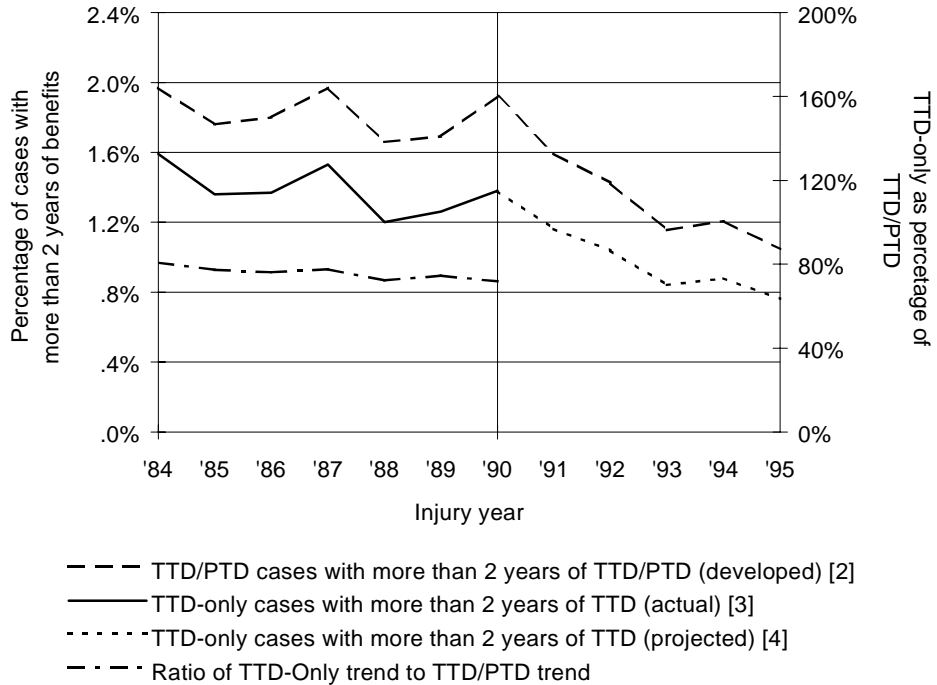
Figure D-1
Percentage of TTD/PTD Cases With More Than Two Years of TTD/PTD Benefits:
Actual vs. Developed Statistics, Injury Years 1984-1995 [1]



1. Data are from the DLI claims database.
2. The last quarter of 1995 is excluded from injury-year 1995.
3. These numbers are "developed statistics," meaning that they are a projection of what the final numbers will be when claims are mature. They are derived by applying historical rates of claim development (computed from the actual numbers as of February 26, 1999 and March 22, 2000) to the actual numbers as of March 22, 2000.

Figure D-2

Projection of Percentage of TTD-Only Claims With More Than Two Years of TTD Benefits for Injury Years 1991-1995 [1]



Injury Year	Percentage of TTD/PTD Cases with More Than Two Years of TTD/PTD Benefits (Developed) [2]	Percentage of TTD-Only Cases with More Than Two Years of TTD Benefits (Actual) [3]	Percentage of TTD-Only Cases with More Than Two Years of TTD Benefits (Projected) [4]	Ratio of TTD-Only Trend to TTD/PTD Trend
1984	1.97%	1.59%		80.7%
1985	1.76	1.36		77.3
1986	1.80	1.37		76.1
1987	1.97	1.53		77.7
1988	1.66	1.20		72.3
1989	1.69	1.26		74.6
1990	1.92	1.38	1.38%	71.8
1991	1.59		1.16	
1992	1.42		1.04	
1993	1.15		0.84	
1994	1.21		0.88	
1995	1.05		0.76	

1. Data are from the DLI claims database.
2. From Figure D-1.
3. The population of TTD-only cases was derived by removing PTD cases identified in the second injury and supplementary benefit programs from the population of TTD/PTD cases.
4. Derived by applying the ratio of the TTD-only trend to the TTD/PTD trend, averaged for 1988-1990, to the developed TTD/PTD trend for 1991-1995.

The ratio of the TTD-only trend to the TD trend is stable through 1990, though falling slightly. The stability of this ratio provides a basis for extrapolating the TTD-only trend beyond 1990. The extrapolation used the average value of the ratio for 1998-1990, 73 percent. Applying this percentage to the 1990 value of the TTD-only trend yielded the extrapolation for later years. The overall TTD-only trend, including the extrapolated portion, is shown in Figure 1 of the body of the report.

Reasons for Preferring Estimates from Developed Injury year Data

Previously, Research and Statistics used closed claims to estimate the percentage of TTD cases that would be affected by the duration limit, because mature data were required. Closed-claim analysis is widely recognized as appropriate for such a situation.

However, the closed-claim approach has an important drawback. The claims closed in any given period include injuries that occurred over a long span of time, under different conditions (economic and other) and different legal provisions. This is important in the present context for two reasons.

First, an important provision was enacted in 1983 — namely, that TTD benefits end at 90 days post-MMI (maximum medical improvement). This provision should obviously be expected to reduce TTD benefit duration, including the proportion of cases lasting more than two years. Indeed, for injury years 1982 and 1983 (only part of 1982 has data available), the percentages of TTD-only cases with more than two years of TTD benefits were 2.14 percent and 2.25 percent, respectively. These figures are far higher than the 1.59 percent shown in Figure D-2 for 1984 (the highest figure for 1984-onward).

Second, as shown by the developed statistics in Figure D-1, TTD duration was falling in the years after 1984, probably because of evolving practices in workers' compensation, such as more active medical treatment and greater emphasis on return to work.

Since claims closed in, say, 1996 include both new and old injuries, those claims to a large degree reflect the longer TTD durations for earlier injury years, for the above two reasons. Consequently, they tend to over-state the percentage of current TTD cases lasting longer than two years.

The dilemma, however, is that with injury year analysis, barring the use of developed statistics, one still needs to use old enough injuries for the claims to be sufficiently mature for the question at hand. As with closed-claim analysis, these older injuries reflect a different workers' compensation climate including different legal provisions.

As indicated above, the current analysis addresses this issue by producing and analyzing developed statistics by injury year (although this process is applied to the TD trend which is then used to extrapolate the TTD-only trend). This is possible because Research and Statistics has begun taking periodic extracts from the DLI database, so that snapshots of the data are available at different dates. This allows analysis of claim development rates for given injury years.

Why the Current Estimate is Less Than the Previous One

As mentioned above, it was previously estimated that as many as 2 percent of TTD cases, or about 550-600 per year, could be affected by the 104-week limit. The current estimate for Group 1 TTD-only cases — 0.8 percent of the total or about 240 cases per year — is about 40 percent as high. There are two reasons for the difference. First, by taking advantage of data from the supplementary benefit and second injury programs, it was possible to remove PTD cases to arrive at TTD-only cases. Second, the use of developed injury year statistics, rather than closed claims, produces estimates based on experience for recent injuries, rather than for a mix of younger and older cases. This makes a difference because a much smaller proportion of recent injuries than of older injuries have more than two years of TTD benefits.