Minnesota Workers' Compensation System Report, 2006

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Minnesota Workers' Compensation System Report, 2006

by
David Berry (principal)
Brian Zaidman

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Policy Development, Research and Statistics

443 Lafayette Road N.
St. Paul, MN 55155-4307
(651) 284-5025
dli.research@state.mn.us
www.doli.state.mn.us/research.html

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Executive summary

In parallel with nationwide trends, Minnesota's workers' compensation system experienced major reductions in benefit payments and system cost in the early 1990s. Total benefits increased relative to payroll from the mid-1990s to the early 2000s, but have decreased somewhat in more recent years. This has reflected the combined effects of a consistently decreasing claim rate and increasing benefits per claim, particularly medical benefits, through 2003. Total system cost has been stable relative to payroll in the mid-2000s.

This report, part of an annual series, presents data from 1997 through 2006 about several aspects of Minnesota's workers' compensation system — claims, benefits and costs; vocational rehabilitation; and disputes and dispute resolution. The purpose of the report is to describe statistically the current status and direction of workers' compensation in Minnesota and to offer explanations where possible for recent developments. The report also presents workers' compensation medical cost data from a major insurer to provide insight into current medical cost issues.

The report's major findings:

- The claim rate fell continually from 1997 through 2006.

- After reaching a low-point in 2000, workers' compensation system cost relative to payroll was stable from 2003 to 2006 at a somewhat higher level than in 1997.

- Indemnity and medical benefits per claim — especially medical benefits — rose sharply between 1997 and 2005 (adjusting for average wage growth). Average indemnity benefits per insured claim were up 42 percent (the most recent year available); average medical benefits were up 70 percent. (These figures are corrected from the first release of this report.)

- Relative to payroll, medical benefits have risen since 1997 while indemnity benefits have fallen slightly, reflecting the net effect of the falling claim rate and higher benefits per claim.

- The increase in indemnity benefits per claim is due primarily to increasing benefit duration and increases in the frequency and amounts of stipulated benefits.

- In vocational rehabilitation:

  - The participation rate rose between 1997 and 2003 but fell slightly between 2003 and 2006.
  - Average cost per participant rose substantially from 1998 to 2006 (adjusting for average wage growth).
  - Average service duration increased somewhat between 2002 and 2006.
  - The percentage of participants with a job at the conclusion of services fell between 1998 and 2006.

- The dispute rate rose from 1997 to 2006.

- According to data from a large insurer:

  - The service groups contributing the largest amounts to the recent increases in medical costs were outpatient facility services, inpatient hospital facility services and drugs.
  - Almost all service categories showed an increase in the expensiveness of service mix; this was most pronounced for radiology.
  - Service and provider groups not subject to the fee schedule showed the largest increases in cost per unit of service. A majority of the service and provider groups subject to the fee schedule showed decreases in unit cost.

- Nonfacility providers contributed a larger share of the overall cost increase than did facility providers.
- These findings are affected by cost-control measures taken by the insurer concerned.

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(continued)

Figures

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Introduction

During the early and middle 1990s, through cost-control measures by employers and insurers and law changes in most states, workers' compensation benefits and costs fell nationwide. In Minnesota, a combination of employer and insurer efforts and law changes in 1992 and 1995 produced major cost reductions in the first half of the 1990s, followed by a period of stability in the second half of the decade. Since the late 1990s, a decreasing claim rate has counteracted increases in benefits per claim (particularly medical benefits) to bring about continued stability in cost relative to payroll.

This report, part of an annual series, presents data from 1997 through 2006 about several aspects of Minnesota's workers' compensation system — claims, benefits and costs; vocational rehabilitation; and disputes and dispute resolution. Its primary purpose is to describe statistically the current status and direction of workers' compensation in Minnesota. The report also presents workers' compensation medical cost data from a major insurer to provide insight into current medical cost issues.

Chapter 2 presents overall claim, benefit and cost data. Chapter 3 provides more detailed data about indemnity (cash) benefit trends. Chapters 4 and 5 provide statistics about vocational rehabilitation and about disputes and dispute resolution. Chapter 6 presents workers' compensation medical cost trends for a large insurer.

Appendix A contains a glossary with descriptions of, among other things, the major types of benefits. Appendix B summarizes portions of the 2000 law changes relevant to trends in this report. Appendix C describes data sources and estimation procedures.

The following points should be kept in mind throughout the report:

Developed statistics — Most statistics in this report are presented by injury year or insurance policy year.[1] An issue with such data is that the originally reported numbers for more recent years are not mature because of longer claims and reporting lags. In this report, all injury year and policy year data is "developed" to a uniform maturity to produce statistics that are comparable over time. The technique uses "development factors" (projection factors) based on observed data for older claims.[2] ***The injury year (and policy year) statistics are projections of what the actual numbers will be when all claims are complete and all data is reported. Therefore, the statistics for any given injury year (especially for more recent years) are subject to change when more recent data becomes available. When revisions occur, however, the trends generally show little change from the prior versions.***

Adjustment of cost data for wage growth — Several figures in the report present costs over time. As wages and prices grow, a given cost in dollar terms represents a progressively smaller economic burden from one year to the next. If the total cost of indemnity and medical benefits grows at the same rate as wages, there is no net change in cost as a percentage of payroll. Therefore, all costs (except those costs expressed relative to payroll) are adjusted for average wage growth. The adjusted trends reflect the extent to which cost growth exceeds (or falls short of) average wage growth.[3]

[1] Definitions in Appendix A. Some insurance data is by accident year, which is equivalent to injury year.

[2] See Appendix C for more detail.

[3] See Appendix C for computational details.

2

Claims, benefits and costs: overview

This chapter presents overall indicators of the status and direction of Minnesota's workers' compensation system.

Major findings

- The number of paid claims dropped 35 percent relative to the number of full-time-equivalent (FTE) workers from 1997 to 2006 (Figure 2.1).
- The total cost of Minnesota's workers' compensation system relative to payroll was 4 percent higher in 2006 than in 1997 (Figure 2.2).
- Adjusted for average wage growth, average indemnity benefits per insured claim were up 42 percent from 1997 to 2005 (the most recent year available); average medical benefits per claim rose 70 percent (Figure 2.4). (These figures are corrected from the first release of this report.)
- Relative to payroll, indemnity benefits were down 11 percent from 1997 to 2006, while medical benefits were up 15 percent (Figure 2.6). The trends in benefits relative to payroll are the net result of a falling claim rate and higher benefits per claim.
- Pure premium rates in 2008 were down 24 percent from 1997 and 12 percent from 1998 (Figure 2.8).

Background

The following basic information is necessary for understanding the figures in this chapter. See Appendix A for more detail.

Workers' compensation benefits and claim types

Workers' compensation provides three basic types of benefits:

- ***Indemnity benefits*** compensate the injured or ill worker (or dependents) for wage loss, permanent functional impairment or death.
- ***Medical benefits*** consist of reasonable and necessary medical services and supplies related to the injury or illness.
- ***Vocational rehabilitation benefits*** consist of a variety of services to help eligible injured workers return to work. These benefits are counted as indemnity benefits in insurance data but are counted separately in DLI data. They are considered separately in Chapter 5.

Claims with indemnity benefits are called ***indemnity claims****;* these claims typically have medical benefits also. The remainder of claims are called ***medical-only claims*** because they only have medical benefits.

Insurance arrangements

Employers cover themselves for workers' compensation in one of three ways. The most common is to purchase insurance in the "voluntary market," so named because an insurer may choose whether to insure any particular employer. Employers unable to insure in the voluntary market may insure through the Assigned Risk Plan, the insurance program of last resort administered by the Department of Commerce. Employers meeting certain financial requirements may self-insure.

Rate-setting

Minnesota is an open-rating state for workers' compensation, meaning rates are set by insurance companies rather than by a central authority. In determining their rates, insurance companies start with "pure premium rates" (also known as "loss costs"). These rates represent expected losses (indemnity and medical) per $100 of payroll for some 600 payroll classifications. The Minnesota Workers' Compensation Insurers Association (MWCIA) — Minnesota's workers' compensation data service organization and rating bureau — calculates the pure premium rates every year from insurers' most recent pure premium and losses. Insurance companies add their own expenses to the pure premium rates and make other modifications in determining their own rates.

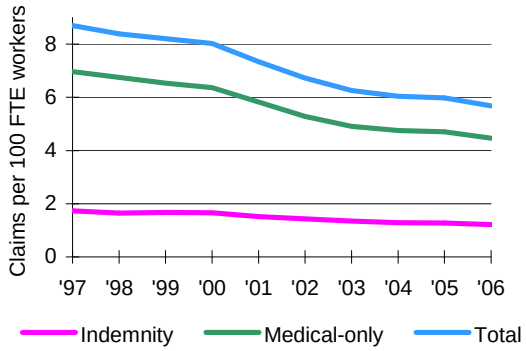
Since the pure premium rates are calculated from prior data, a lag of two to three years exists between benefit trends and pure premium rate changes.

Claim rates

Claim rates declined continually from 1997 to 2006.

- In 2006, there were:
  - 5.7 paid claims per 100 FTE workers, down 29 percent from 2000;
  - 1.2 paid indemnity claims per 100 FTE workers, down 27 percent from 2000; and
  - 4.5 paid medical-only claims per 100 FTE workers, down 30 percent from 2000.
- The overall paid claim rate for 2006 was down 35 percent from 1997.
- Since 1997, indemnity claims have made up 20 to 21 percent of all paid claims, while medical-only claims have constituted the remaining 79 to 80 percent.

Figure 2.1 Paid claims per 100 full-time-equivalent workers, injury years 1997-2006 [1]



Injury year	Indemnity claims	Medical-only claims	Total claims
1997	1.74	7.0	8.7
2000	1.66	6.4	8.0
2002	1.43	5.3	6.7
2003	1.34	4.9	6.3
2004	1.29	4.7	6.0
2005	1.28	4.7	6.0
2006	1.21	4.5	5.7

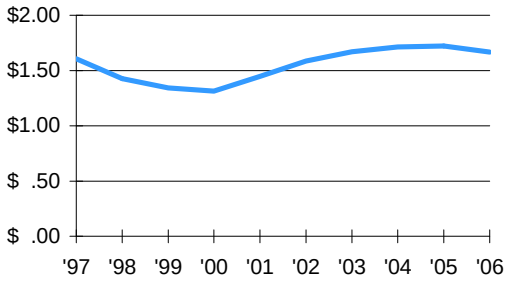
1. Developed statistics from DLI data and other sources (see Appendix C).

System cost

The total cost of Minnesota's workers' compensation system increased relative to payroll from its low point in 2000, but was stable from 2003 to 2006.

- From 2000 to 2003, total system cost rose from $1.31 per $100 of payroll to $1.67, a 27-percent increase.
- The 2006 value was 4 percent higher than 1997.
- **The total cost of workers' compensation in 2006 was an estimated $1.7 billion.**
- These figures reflect benefits (indemnity, medical and vocational rehabilitation) plus other costs such as brokerage, claim adjustment, litigation, and taxes and assessments. The figures are computed primarily from actual premium for insured employers (adjusted for costs under deductible limits) and experience-modified pure premium for self-insured employers (see Appendix C).

Figure 2.2 System cost per $100 of payroll, 1997-2006 [1]



	Cost per $100 of payroll
1997	$1.61
2000	1.31
2002	1.58
2003	1.67
2004 [2]	1.71
2005 [2]	1.72
2006 [2]	1.67

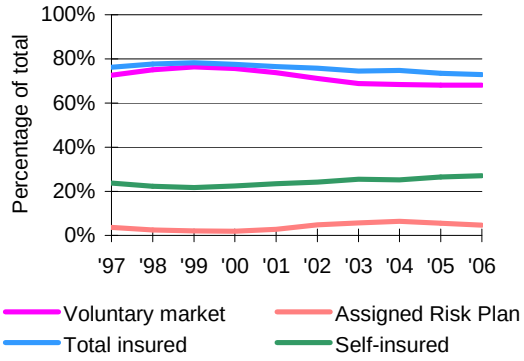
1. Data from several sources (see Appendix C). Includes insured and self-insured employers.
2. Subject to revision.

Insurance arrangements

The voluntary market lost market share from 1999 through 2006.[4]

- The voluntary market share of paid indemnity claims was 68 percent in 2006, down from 76 percent in 1999.
- The self-insured share increased from 22 percent in 1999 to 27 percent in 2006.
- The Assigned Risk Plan share was 5 percent in 2006, up from 2 percent in 1999 and 2000.
- These shifts are at least partly due to changes in insurance costs shown in Figure 2.2. Rate increases in the voluntary market tend to cause shifts from the voluntary market to both the Assigned Risk Plan and self-insurance, while rate decreases cause shifts in the opposite direction.

Figure 2.3 Market shares of different insurance arrangements as measured by paid indemnity claims, injury years 1997-2006 [1]



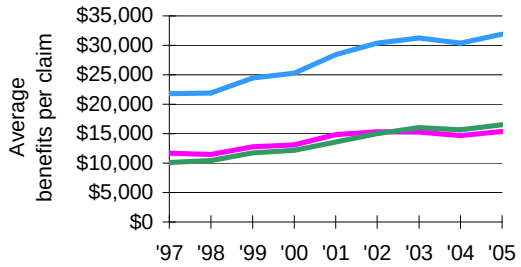
Injury year	Voluntary market	Assigned Risk Plan	Total insured	Self-insured
1997	72.6%	3.6%	76.3%	23.7%
1999	76.3	2.0	78.3	21.7
2002	71.1	4.7	75.9	24.1
2003	68.9	5.6	74.5	25.5
2004	68.3	6.4	74.7	25.3
2005	68.1	5.5	73.5	26.5
2006	68.2	4.7	72.8	27.2

1. Data from DLI.

[4] When market share is measured by pure premium (not shown here), the trends are similar.

Figure 2.4 Average indemnity and medical benefits per insured claim, adjusted for wage growth, policy years 1997-2005 [1]

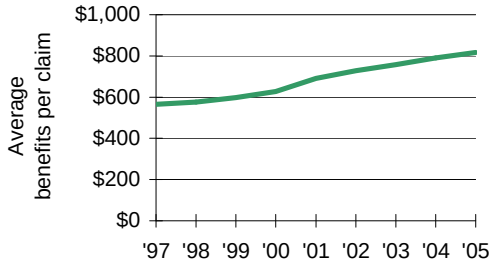
A: Indemnity claims



Policy year	Indemnity benefits	Medical benefits	Total benefits
1997	$11,700	$10,100	$21,800
2002	15,300	15,000	30,400
2003	15,300	16,000	31,300
2004	14,700	15,700	30,400
2005 [2]	15,400	16,500	31,900

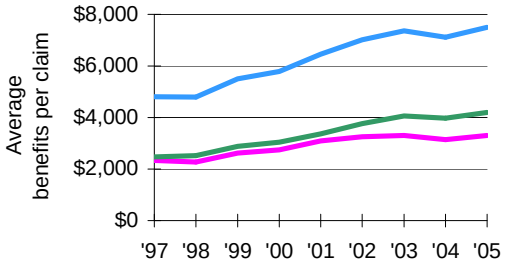
Indemnity Medical Total

B: Medical-only claims



Policy year		Medical benefits	Total benefits
1997		$565	$565
2002		728	728
2003		757	757
2004		790	790
2005 [2]		816	816

C: All claims



Policy year	Indemnity benefits	Medical benefits	Total benefits
1997	$2,330	$2,470	$4,810
2002	3,260	3,760	7,020
2003	3,300	4,060	7,360
2004	3,140	3,970	7,110
2005 [2]	3,310	4,200	7,500

Indemnity Medical Total

1. Developed statistics from MWCIA data (see Appendix C). Includes the voluntary market and Assigned Risk Plan; excludes self-insured employers. Benefits are adjusted for average wage growth between the respective year and 2006. 2005 is the most recent year available.
2. The figures for 2005 are corrected versions of those that appeared in the first release of this report.

Benefits per claim

Adjusted for wage growth, average indemnity and medical benefits per insured claim rose rapidly between 1997 and 2005.

- For all claims combined, in 2005 relative to 1997:
  - average indemnity benefits were up 42 percent;
  - average medical benefits were up 70 percent; and
  - average total benefits were up 56 percent.

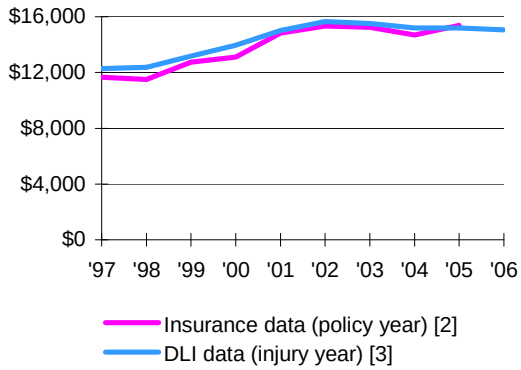
Note: These numbers are corrected from the first release of this report.

Indemnity benefits per indemnity claim: insurance and DLI data

DLI data broadly corroborates the insurance data on average indemnity benefits per indemnity claim.

- Adjusting for wage growth, both the DLI and insurance data show increases in average indemnity benefits per claim through 2002. The DLI data shows a slight decrease after 2002 while the insurance data shows some fluctuation, with 2005 at about the same level as 2002.

Figure 2.5 Average indemnity benefits per indemnity claim, adjusted for wage growth, 1997-2006: insurance and DLI data [1]



Policy or injury year	Insurance data [2]	DLI data [3]
1997	$11,700	$12,300
2002	15,300	15,600
2003	15,300	15,500
2004	14,700	15,200
2005 [4]	15,400	15,200
2006	[5]	15,100

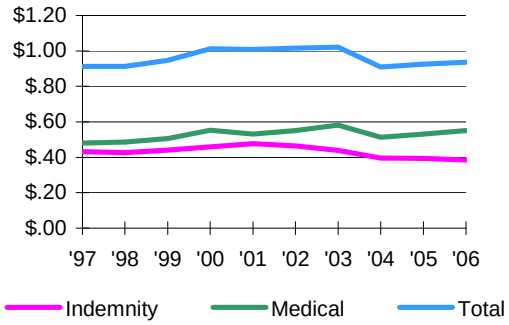
1. Benefits are adjusted for average wage growth between the respective year and 2006.
2. From Figure 2.4. Excludes self-insured employers, supplementary benefits and second-injury claims. Includes the Assigned Risk Plan and vocational rehabilitation benefits.
3. Developed statistics (see Appendix C). Includes self-insured employers, the Assigned Risk Plan, supplementary benefits and second-injury claims. Excludes vocational rehabilitation benefits.
4. The figure for 2005 for the insurance data is a corrected version of what appeared in the first release of this report.
5. Not yet available.

Benefits relative to payroll

Medical benefits rose relative to payroll between 1997 and 2006 while indemnity benefits fell relative to payroll during the same period, although both benefit types fluctuated.

- From 1997 to 2006, relative to payroll:
  - indemnity benefits fell 11 percent;[5]
  - medical benefits rose 15 percent; and
  - total benefits rose 3 percent.
- These changes are the net result of a decreasing claim rate (Figure 2.1) and higher indemnity and medical benefits per claim (Figures 2.4, 2.5). The different trends in indemnity and medical benefits relative to payroll occur because medical benefits per claim rose more than indemnity benefits per claim (Figure 2.4).

Figure 2.6 Benefits per $100 of payroll in the voluntary market, accident years 1997-2006 [1]



Accident year	Indemnity benefits	Medical benefits	Total benefits
1997	$.43	$.48	$ .91
2001	.48	.53	1.01
2002	.47	.55	1.02
2003	.44	.58	1.02
2004	.40	.51	.91
2005	.39	.53	.92
2006	.38	.55	.94

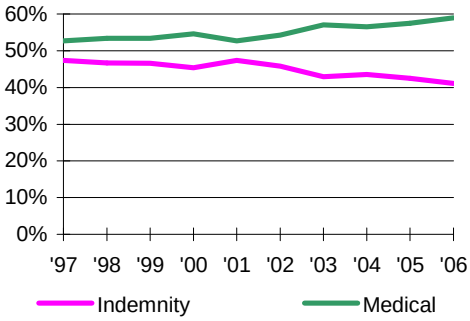
1. Developed statistics from MWCIA data (see Appendix C). Excludes self-insured employers, the Assigned Risk Plan, and supplementary and second-injury benefits.

Indemnity and medical shares

The medical share of total benefits rose between 1997 and 2006. The increase occurred primarily during the latter part of the period.

- Reflecting the data in Figure 2.6:
  - **medical benefits rose from a 53-percent share of total benefits in 1997 to 59 percent in 2006, and**
  - **indemnity benefits fell from 47 percent of total benefits to 41 percent over the same period.**

Figure 2.7 Indemnity and medical benefit percentages in the voluntary market, accident years 1997-2006 [1]



Accident year	Indemnity benefits	Medical benefits
1997	47.3%	52.7%
2001	47.3	52.7
2002	45.8	54.2
2003	42.9	57.1
2004	43.5	56.5
2005	42.5	57.5
2006	41.1	58.9

1. Developed statistics from MWCIA data (see Appendix C). Excludes self-insured employers, the Assigned Risk Plan, and supplementary and second-injury benefits.

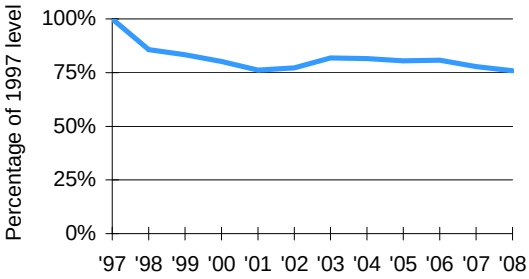
[5] The indemnity benefit trend in Figure 2.6, from insurance data, is corroborated by DLI data.

Pure premium rates

After a large decrease in 1998, pure premium rates have drifted downward slightly.

- Pure premium rates in 2008 were down 24 percent from 1997 and 12 percent from 1998.[6] They were at about the same level as their low-point in 2001.
- Pure premium rates are ultimately driven by the trend in benefits relative to payroll (Figure 2.6). However, this occurs with a lag of two to three years because the pure premium rates for any period are derived from prior premium and loss experience.[7]
- Insurers in the voluntary market consider the pure premium rates, along with other factors, in determining their own rates, which in turn affect total system cost (Figure 2.2).

Figure 2.8 Average pure premium rate as percentage of 1997 level, 1997-2008 [1]



Effective year	Percentage of 1997
1997	100.0%
1998	85.7
2001	76.1
2003	81.7
2005	80.5
2006	80.8
2007	77.9
2008	75.8

1. Data from the MWCIA. Pure premium rates represent expected indemnity and medical losses per $100 of covered payroll in the voluntary market.

[6] A "percent increase" means the proportionate increase in the initial percentage, not the number of percentage points of increase. For example, an increase from 10 percent to 15 percent is a 50-percent increase.

[7] Changes in pure premium rates directly following law changes also include estimated effects of those law changes.

3

Claims, benefits and costs: detail

This chapter presents additional data about claims, benefits and costs. Most of the data provides further detail about the indemnity claim and benefit information in Chapter 2. Some of the data relates to costs of special benefit programs and state agency administrative functions.

Major findings

- The average duration of total disability benefits was 14 percent higher in 2006 than in 1997. Average temporary partial disability (TPD) benefit duration was 13 percent higher (Figure 3.3).
- Average indemnity benefits per indemnity claim (adjusted for wage growth) were 23 percent higher in 2006 than in 1997 (Figure 3.6).[8] This is primarily attributable to:
  - the increase in total disability duration; and
  - increases in the frequency and average amount of stipulated benefits (Figures 3.2, 3.5).
- State agency administrative costs in 2006 amounted to about 3.0 cents per $100 of covered payroll. This figure has fallen since 1997 (Figure 3.8).

Background

The following basic information is necessary for understanding the figures in this chapter. See Appendix A for more detail.

Benefit types

- ***Temporary total disability (TTD)*** — A weekly wage-replacement benefit paid to an employee who is temporarily unable to work because of a work-related injury or illness, equal to two-thirds of pre-injury earnings subject to a weekly minimum and maximum and a duration limit. TTD ends when the employee returns to work (among other reasons).
- ***Temporary partial disability (TPD)*** — A weekly wage-replacement benefit paid to an injured employee who has returned to work at less than his or her pre-injury earnings, generally equal to two-thirds of the difference between current earnings and pre-injury earnings subject to weekly maximum and total duration provisions.
- ***Permanent partial disability (PPD)*** — A benefit that compensates for permanent functional impairment resulting from a work-related injury or illness. The benefit is based on the employee's impairment rating and is unrelated to wages.
- ***Permanent total disability (PTD)*** — A weekly wage-replacement benefit paid to an employee who sustains one of the severe work-related injuries specified in law or who, because of a work-related injury or illness in combination with other factors, is permanently unable to secure gainful employment (subject to a permanent impairment rating threshold).
- ***Stipulated benefits*** — Indemnity and/or medical benefits specified in a claim settlement — "stipulation for settlement" — among the parties to a claim. A stipulation usually occurs in a dispute, and stipulated benefits are usually paid in a lump sum.

[8] These figures are somewhat different from comparable figures in Chapter 2, because they are from a different data source (DLI vs. insurance industry) and they include self-insured employers.

- ***Total disability*** — In most figures in this chapter — those presenting DLI data — the term "total disability" refers to the combination of TTD and PTD benefits, because the DLI data does not distinguish between these two benefit types.

Counting claims and benefits: insurance data and department data

The first figure in this chapter uses insurance data (from the MWCIA); all other figures use DLI data.

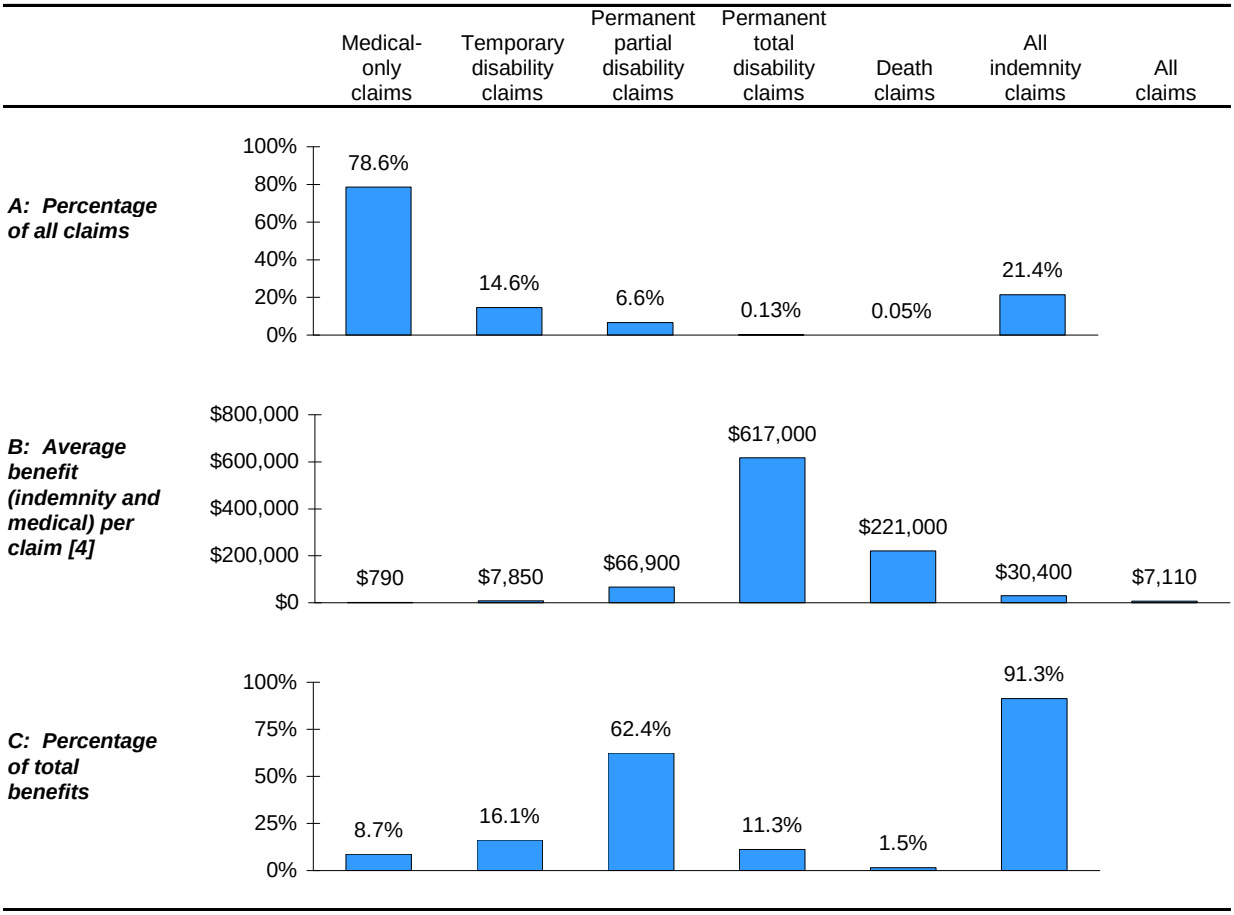
In the insurance data, claims and benefits are categorized by "claim type," defined according to the most severe type of benefit on the claim. In increasing severity, the benefit types are medical, temporary disability (TTD or TPD), PPD, PTD and death. For example, a claim with medical, TTD and PPD payments is a PPD claim. PPD claims also include claims with temporary disability benefits lasting more than one year and claims with stipulated settlements. All benefits on a claim are counted in the one claim-type category into which the claim falls.

In the DLI data, by contrast, each claim may be counted in more than one category, depending on the types of benefits paid. For example, the same claim may be counted among claims with total disability benefits and among claims with PPD benefits.

Costs supported by Special Compensation Fund assessment

DLI, through its Special Compensation Fund (SCF), levies an annual assessment on insurers (including self-insurers) to finance (1) costs in DLI, the Office of Administrative Hearings and other state agencies to administer the workers' compensation system and (2) certain benefits for which DLI is responsible. Primary among these benefits are supplementary benefits and second-injury benefits. Although these programs have been eliminated, benefits must still be paid on old claims (see Appendices B and C). Insurers add the assessment amount to the employers' premiums in the form of a surcharge, and this is included in total workers' compensation system cost (Figure 2.2).

Figure 3.1 Benefits by claim type for insured claims, policy year 2004 [1]



1. Developed statistics from MWCIA data (see Appendix C). 2004 is the most recent year available.
2. Because of large annual fluctuations, data for PTD and death claims is averaged over 2002-2004 (see Appendix C).
3. Indemnity claims consist of all claim types other than medical-only.
4. Benefit amounts in panel B are adjusted for overall wage growth between 2004 and 2006.

Benefits by claim type

Each claim type (in the insurance data) contributes to total benefits paid depending on its relative frequency and average benefit. PPD claims account for the majority of total benefits.

(As indicated above, in the insurance data, the benefits for each claim type include all types of benefits paid on that type of claim. PPD claims, for example, may include medical, TTD and TPD benefits in addition to PPD benefits.)

- PPD claims accounted for 62 percent of total benefits in 2004 (panel C in figure) through a combination of low frequency (panel A) and higher-than-average benefits per claim (panel B).
- Other claim types contributed smaller amounts to total benefits because of very low frequency (PTD and death claims) or very low average benefits (medical-only claims).
- **Indemnity claims were 21 percent of all paid claims, but accounted for 91 percent of total benefits because they have far higher benefits on average than medical-only claims ($30,400 vs. $790).**
- The percentages and relative benefit amounts in the figure have been fairly stable during the past several years.

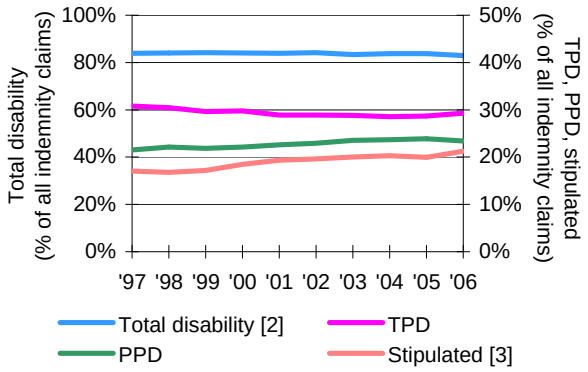
Claims by benefit type

Since 1997, as a proportion of all paid indemnity claims, claims with PPD benefits and claims with stipulated benefits have increased, claims with TPD benefits have decreased slightly and claims with total disability benefits have been stable.

- From 1997 to 2006:
  - the percentage of claims with PPD benefits rose about 2 percentage points;
  - the percentage of claims with stipulated benefits rose about 4 percentage points; and
  - the percentage of claims with TPD benefits fell 1.5 percentage points.

- **The increase in the percentage of claims with stipulated benefits is related to a similar increase in the dispute rate (Figure 7.1).**

Figure 3.2 Percentages of paid indemnity claims with selected types of benefits, injury years 1997-2006 [1]



Injury year	Total disab.[2]	TPD	PPD	Stipu-lated [3]
1997	83.9%	30.8%	21.5%	17.0%
1999	84.2	29.7	21.9	17.2
2002	84.2	28.9	22.9	19.6
2003	83.3	28.8	23.6	20.0
2004	83.7	28.6	23.7	20.3
2005	83.7	28.7	23.9	19.9
2006	83.0	29.3	23.4	21.2

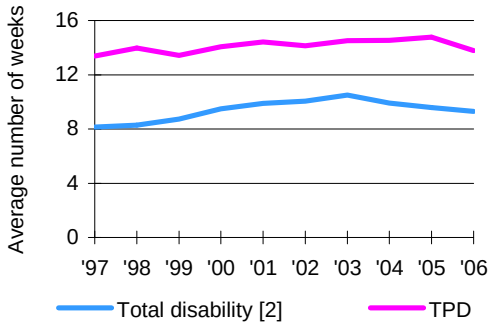
1. Developed statistics from DLI data (see Appendix C). An indemnity claim may have more than one type of benefit paid. Therefore, the sum of the figures for the different benefit types is greater than 100 percent.
2. Total disability includes TTD and PTD.
3. Includes indemnity and medical components.

Benefit duration

The average durations of total disability benefits and TPD benefits were greater in 2006 than in 1997, but for TPD benefits this was only slightly true.

- Total disability duration rose 29 percent from 1997 to 2003, but fell 12 percent from 2003 to 2006. The 2006 average of 9.3 weeks was 14 percent above 1997.
- TPD increased slightly during most of the period but fell in 2006.
- These trends in duration affect indemnity cost per claim (Figures 2.4, 2.5, 3.5, 3.6). As a result, they also affect pure premium rates and system cost (Figures 2.2, 2.8).

Figure 3.3 Average duration of wage-replacement benefits, injury years 1997-2006 [1]



Injury year	Total disab.[2]	TPD
1997	8.1	13.4
1999	8.7	13.4
2002	10.1	14.1
2003	10.5	14.5
2004	9.9	14.5
2005	9.6	14.8
2006	9.3	13.8

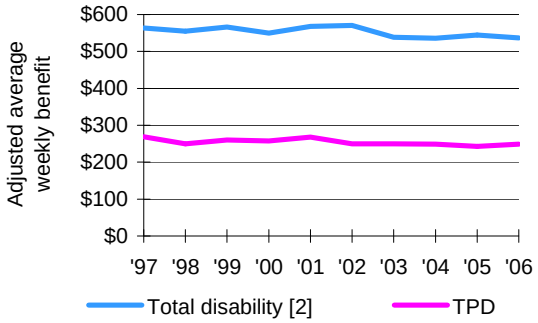
1. Developed statistics from DLI data (see Appendix C).
2. Total disability includes TTD and PTD.

Weekly benefits

Average weekly total disability and TPD benefits were down slightly in 2006 relative to 1997.

- Adjusted average weekly total disability benefits were 5 percent lower in 2006 than in 1997; average weekly TPD benefits were down 7 percent.
  - ➢ *Unadjusted* average weekly benefits rose during the period examined, but at a somewhat less rapid pace than the statewide average weekly wage (SAWW), causing the slight declines in *adjusted* average weekly benefits shown here.
- The average pre-injury wage of injured workers (which affects average weekly benefits) fell about 5 percent relative to the statewide average weekly wage from 1997 to 2005. This explains most of the decline in adjusted average total disability benefits and part of the decline in average weekly TPD benefits.

Figure 3.4 Average weekly wage-replacement benefits, adjusted for wage growth, injury years 1997-2006 [1]



Injury year	Total disab. [2]	TPD
1997	$564	$268
1999	566	260
2002	571	250
2003	539	250
2004	536	249
2005	544	243
2006	537	249

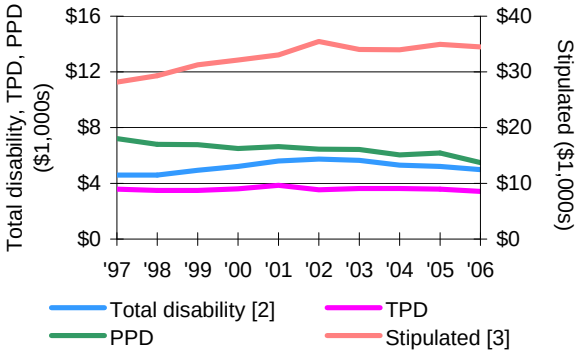
1. Developed statistics from DLI data (see Appendix C). Benefit amounts are adjusted for average wage growth between the respective year and 2006.
2. Total disability includes TTD and PTD.

Average indemnity benefits by type

Adjusting for average wage growth, average benefit amounts (per claim with the given benefit type) showed different trends from 1997 to 2006: average total disability benefits and average stipulated benefits increased, average PPD benefits fell and average TPD benefits showed little change.

- From 1997 to 2006, after adjusting for average wage growth:
  - ➢ average total disability benefits rose 9 percent;
  - ➢ average TPD benefits fell 4 percent;
  - ➢ average PPD benefits fell 24 percent; and
  - ➢ average stipulated benefits rose 22 percent.
- The increases in average total disability and stipulated benefits occurred between 1997 and 2002. After 2002, average total disability benefits declined while average stipulated benefits were fairly stable.
- The trends in average total disability and TPD benefits are driven by the trends in average benefit duration and average weekly benefits. Average total disability benefits rose during the same period (1997 to 2002) when the average duration of these benefits was increasing (Fig. 3.3). The essentially flat trend in average TPD benefits occurred because of offsetting trends in average weekly benefits and duration (Figures 3.3 and 3.4).
- Adjusted average PPD benefits have fallen nearly continually since 1997, with exceptions in 2001 and 2005. This falling trend has occurred primarily because the PPD benefit schedule is fixed, apart from statutory changes. Under the fixed schedule, PPD benefits become smaller relative to rising wages, which is reflected in the adjusted average benefits. The PPD benefit increase in the 2000 law change (see Appendix B) is responsible for the slight increase in average PPD benefits in 2001.[9]

Figure 3.5 Average indemnity benefit by type per claim with the given benefit type, adjusted for wage growth, injury years 1997-2006 [1]



Injury year	Total disability [2]	TPD	PPD	Stipulated [3]
1997	$4,590	$3,590	$7,220	$28,170
1999	4,940	3,490	6,770	31,270
2002	5,740	3,540	6,470	35,460
2003	5,660	3,620	6,430	34,040
2004	5,310	3,620	6,050	33,990
2005	5,210	3,590	6,190	34,930
2006	4,990	3,440	5,490	34,490

1. Developed statistics from DLI data (see Appendix C). Benefit amounts are adjusted for average wage growth between the respective year and 2006.
2. Total disability includes TTD and PTD.
3. Includes indemnity and medical components.

[9] The sharp downturn in average PPD benefits in 2006 should be viewed with caution, because it is a one-year fluctuation and is the most recent year in a trend of developed statistics and therefore has a relatively high projected component.

Indemnity benefits per indemnity claim

Adjusting for average wage growth, average indemnity benefits per indemnity claim rose rapidly between 1997 and 2002, but fell slightly from 2002 to 2006. The 1997-to-2002 increase resulted from an increase in total disability and stipulated benefits per claim. The increase in total disability benefits per claim in turn resulted from increased duration.

Note: Figure 3.6 differs from Figure 3.5 in that it shows the average benefit of each type *per indemnity claim,* rather than *per claim with the respective type of benefit.* Figure 3.6 reflects the percentage of indemnity claims with each benefit type (Figure 3.2) and the average benefit amount per claim with the respective benefit type (Figure 3.5).

- Adjusting for average wage growth, indemnity benefits per indemnity claim were 23 percent higher in 2006 than in 1997. These numbers (last column of Figure 3.6) are the DLI numbers in Figure 2.5.

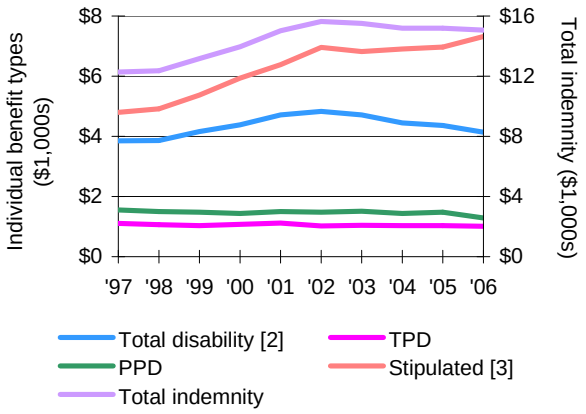
- The increase in indemnity benefits per claim took place from 1997 to 2002 and resulted from increases in total disability benefits and stipulated benefits.

  - The increase in total disability benefits per indemnity claim resulted from an increase in duration (Figure 3.3). (The percentage of indemnity claims with total disability benefits was stable (Figure 3.2).)
  - The increase in stipulated benefits per indemnity claim resulted from an increase in average stipulated benefit amounts (Figure 3.5) and an increase in the proportion of claims with these benefits (Figure 3.2).

- In 2006, total disability and stipulated benefits per indemnity claim were several times as large as TPD and PPD benefits per indemnity claim.

- As a proportion of total indemnity benefits, stipulated benefits increased from 38 percent in 1997 to nearly 50 percent in 2006.

Figure 3.6 Average indemnity benefit by type per paid indemnity claim, adjusted for wage growth, injury years 1997-2006 [1]



Injury year	Total disabilty [2]	TPD	PPD	Stipulated [3]	Total indemnity [4]
1997	$3,850	$1,100	$1,550	$4,790	$12,280
1999	4,160	1,040	1,480	5,370	13,170
2002	4,830	1,020	1,480	6,960	15,650
2003	4,720	1,040	1,510	6,820	15,520
2004	4,440	1,030	1,430	6,910	15,190
2005	4,360	1,030	1,480	6,960	15,190
2006	4,140	1,010	1,280	7,320	15,070

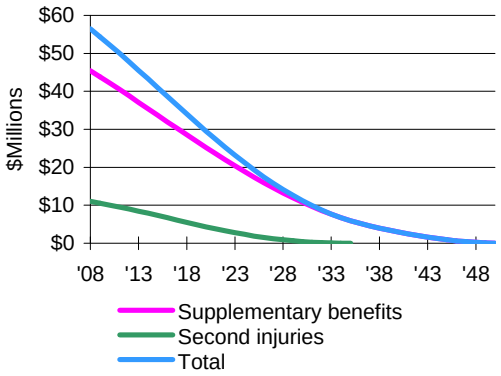
1. Developed statistics from DLI data (see Appendix C). Benefit amounts are adjusted for average wage growth between the respective year and 2006.
2. Total disability includes TTD and PTD.
3. Includes indemnity and medical components.
4. Because some benefit types are not shown, total indemnity benefits are greater than the sum of the benefit types shown.

Supplementary benefit and second-injury costs

DLI produces an annual projection of supplementary benefit and second-injury reimbursement costs as they would exist without future settlement activity. The total annual cost is projected to fall nearly in half by 2020 and to disappear by 2050.

- **The total projected cost for 2008, $56 million, is about 3.4 percent of total workers' compensation system cost.**
- The 2008 cost consists of roughly $45 million for supplementary benefits and $11 million for second injuries.
- Without settlements, supplementary benefit claims are projected to continue until 2050 and second-injury claims until 2032.
- Claim settlements will reduce future projections of these liabilities. Settlements amounted to about $4 million in fiscal year 2007.

Figure 3.7 Projected cost of supplementary benefit and second-injury reimbursement claims, fiscal claim-receipt years 2008-2050 [1]



Fiscal year of claim receipt	Projected amount claimed ($millions) Supplementary benefits	Second injuries	Total
2008	$45.4	$11.1	$56.4
2010	42.2	10.0	52.2
2020	25.2	4.3	29.5
2030	10.8	.5	11.2
2050	.0	.0	.0

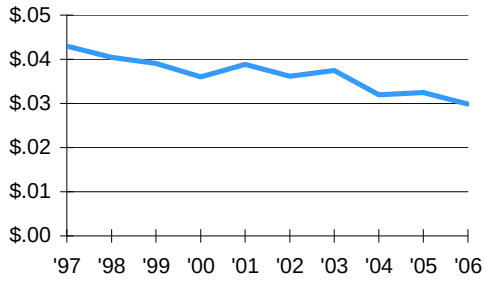
1. Projected from DLI data, assuming no future settlement activity. See Appendix C.

State agency administrative cost

State agency administrative cost has fallen as a proportion of workers' compensation covered payroll during the past several years.

- In fiscal year 2006, state agency administrative cost (see note in figure) came to 3.0 cents per $100 of payroll.
- **Administrative cost for 2006 was about $29 million, or about 1.8 percent of total workers' compensation system cost.**

Figure 3.8 Net state agency administrative cost per $100 of payroll, fiscal years 1997-2006 [1]



Fiscal year	Admin. cost per $100 of payroll
1997	$.043
2002	.036
2003	.037
2004	.032
2005	.032
2006	.030

1. Includes costs of workers' compensation functions in DLI, the Office of Administrative Hearings, the Workers' Compensation Court of Appeals and the Department of Commerce, as well as the cost of Minnesota's OSHA program. Excludes costs of benefit payments reimbursed by the Special Compensation Fund (such as supplementary and second-injury benefits). Costs are net of fees for service. Data from DLI, MWCIA and WCRA.

4

Vocational rehabilitation

This chapter provides data about vocational rehabilitation (VR) services in Minnesota's workers' compensation system.

Major findings

- Participation in vocational rehabilitation rose from 15 percent of paid indemnity claimants in 1997 to 22 percent for 2003, and is estimated at 21 percent in 2006. A projected 5,360 claimants injured in 2006 will receive VR services (Figure 4.1).
- The estimated average cost of VR services per participant was $7,600 in 2006, 22 percent higher than in 1998, after adjusting for average wage growth. The total cost of VR services for 2006, $41 million, was about 2.5 percent of workers' compensation system cost (Figure 4.2).
- The average time from injury to the start of VR services decreased 19 percent from injury year 1998 to 2006 (Figure 4.3).
- Average service duration increased slightly from 2002 to 2006 (Figure 4.4).
- The percentage of VR participants with a job at plan closure decreased from 72 percent for injury year 1998 to 62 percent in 2006 (Figure 4.6).
- The average VR participant returning to work received a wage about the same as their pre-injury wage, but this varied widely among individuals (Figure 4.7).
- For VR participants injured in 2006, about 53 percent of plan closures are projected to result from plan completion; another 46 percent are projected to result from settlement or agreement of the parties (Figure 4.8).

Background

Vocational rehabilitation is the third type of workers' compensation benefit, supplementing medical and indemnity benefits. VR services are provided to injured workers who need help in returning to work because of their injuries and whose employers are unable to offer them suitable employment.

VR services include:

- vocational evaluation;
- counseling;
- job analysis;
- job modification;
- job development;
- job placement;
- vocational testing;
- transferable skills analysis;
- job-seeking skills training;
- retraining; and
- arrangement of on-the-job training.

Except for retraining, these services are delivered by qualified rehabilitation consultants (QRCs) and job-placement vendors. These providers are registered with DLI and must follow professional conduct standards specified in Minnesota Rules.

QRCs work mostly in private-sector VR firms, and may also provide services to non-workers' compensation clients. (Some VR firms also have job-placement staff.) Some QRCs are employed by insurers and self-insured employers. Injured workers may also choose to receive services from DLI's Vocational Rehabilitation unit, which also provides VR services to injured workers whose claims are involved in primary liability disputes.

QRCs determine whether injured workers are eligible for VR services, develop VR plans for those determined eligible and coordinate service delivery under those plans. Eligibility is determined in a VR consultation, which is typically done within certain timelines or if requested by the employee, employer or DLI.

VR plan costs are generated by hourly charges for services by QRCs and vendors and the costs for certain services, such as retraining and vocational testing. Annual increases in hourly charges are limited to the lesser of the increase in the statewide average weekly wage or 2 percent. For most of 2006, the maximum hourly fee for QRCs was $85.45 and for job-placement vendors was $65.72.

Data sources and time period covered

The data in this chapter comes from VR documents filed with DLI for claims with VR activity. Injured workers may receive services from multiple VR service providers, each of whom may file VR service plans. The duration and cost of VR services reported in this chapter are the combined values from all plans involved with a particular claim. For brevity, combined plans are referred to simply as plans. The service outcomes are the outcomes of the most recent plan closure. Outcomes are not included if the claim has an open VR plan.

As in other chapters, all trend statistics in this chapter are by injury year, and are therefore developed as described in Appendix C.

Because the VR system experienced major changes in the early and middle 1990s, most figures in this chapter begin with injury year 1998 rather than 1997.

Participation

The VR participation rate increased steadily from 1997 to 2003, but fell between 2003 and 2006.

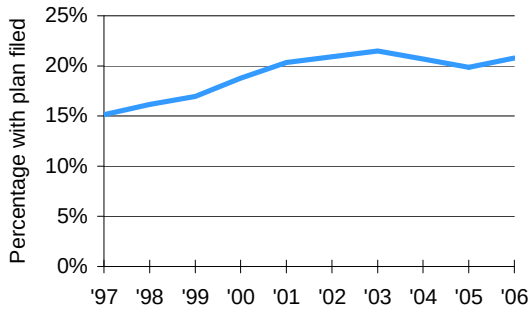
- The participation rate increased from 15 percent in 1997 to 22 percent in 2003, but fell back to 21 percent by 2006.
- The participation rate varies directly with the amount of time the worker has been off the job. For workers injured between 2002 and 2005, the proportion receiving VR services was:
  - 10 percent for workers with fewer than three months of TTD benefits;
  - 64 percent for workers with three to six months of TTD benefits;
  - 87 percent for workers with six to 12 months of TTD benefits; and
  - 91 percent for workers with more than 12 months of TTD benefits.
- About 5,360 workers injured in 2006 are expected to receive VR services. (Some of these people have not yet begun services.)

Cost

Adjusted for average wage growth, the average cost of VR services rose steeply between injury years 1998 and 2003, but was stable between 2003 and 2006.

- **Average service cost per participant for 2006 was $7,600, 22 percent higher than in 1998. Median cost rose 20 percent during the same period.**
- Average VR service cost per indemnity claim was $1,580 in 2006, a 58-percent increase from 1998 but about the same as in 2002. This was the combined effect of the trends in the participation rate (Figure 4.1) and average cost per plan (Figure 4.2).
- **The estimated total cost of VR for 2006 was $40.7 million, about 2.5 percent of total workers' compensation system cost.**

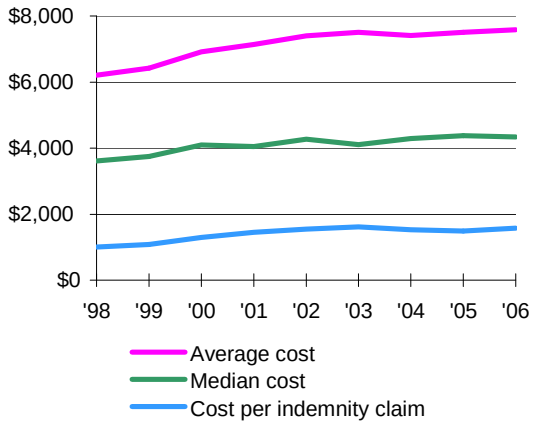
Figure 4.1 Percentage of paid indemnity claims with a VR plan filed, injury years 1997-2006 [1]



Injury year	Percentage with plan
1997	15.1%
2002	20.9
2003	21.5
2004	20.7
2005	19.9
2006	20.8

1. Developed statistics from DLI data (see Appendix C).

Figure 4.2 VR service costs, adjusted for wage growth, injury years 1998-2006 [1]



Injury year	Average cost	Median cost	Cost per indemnity claim
1998	$6,210	$3,610	$1,000
2002	7,400	4,280	1,550
2003	7,510	4,100	1,610
2004	7,410	4,290	1,530
2005	7,500	4,380	1,490
2006	7,580	4,330	1,580

1. Developed statistics from DLI data (see Appendix C). Costs are adjusted for average wage growth between the respective year and 2006.

Timing of services

The success of VR is closely linked to prompt service provision. The average time from injury to the start of VR services decreased between 1998 and 2006, with most of the decrease occurring between 1998 and 2002. The median time also fell.

- **The average time from injury to the start of VR services was 7.0 months for injury year 2006, down 19 percent from 1998. The median time was down 18 percent during the same period.**

- **Among plans closed in 2006, 35 percent of VR service starts were within three months of the date of injury.**

- Among VR participants whose plans closed in 2006, those who started receiving VR services more than one year after their injury, as compared to those starting within six months of injury, had:

  - higher VR costs by 25 percent ($8,780 vs. $7,010);[10]
  - longer VR service durations by 29 percent (16.6 months vs. 12.8 months); and
  - reduced chances of returning to work (59 percent vs. 67 percent).

Service duration

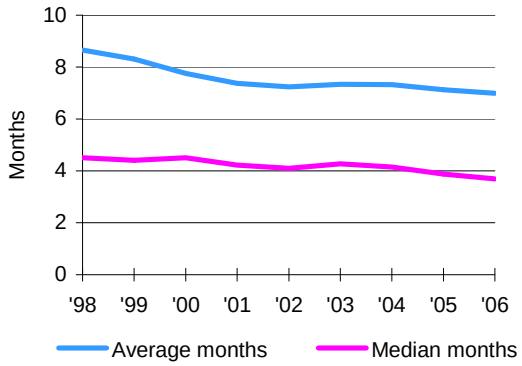
Average VR service duration showed little change between 2002 and 2006.

- **Average service duration for 2006 was 13.2 months, up from 12.8 months for 2002; median duration for 2006 was 9.0 months, the same as for 2002.**

- Among plan closures in 2006, average service duration was shortest for participants returning to work with their pre-injury employer (9.3 months); it was longest for those going to a different employer (17.4 months) and for those whose plans closed before they returned to work (17.5 months).

[10] These figures are limited to private service-providers.

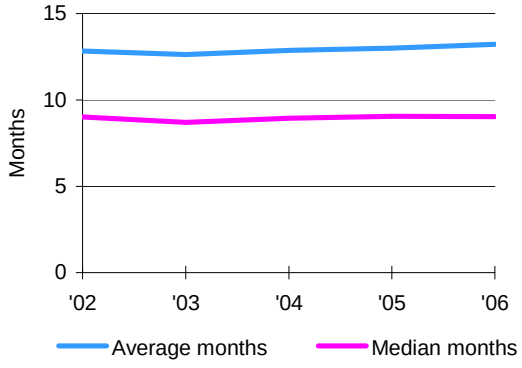
Figure 4.3 Time from injury to start of VR services, injury years 1998-2006 [1]



Injury year	Average months	Median months
1998	8.7	4.5
2002	7.2	4.1
2003	7.3	4.3
2004	7.3	4.1
2005	7.1	3.9
2006	7.0	3.7

1. Developed statistics from DLI data (see Appendix C).

Figure 4.4 VR service duration, injury years 2002-2006 [1]



Injury year	Average months	Median months
2002	12.8	9.0
2003	12.6	8.7
2004	12.9	8.9
2005	13.0	9.0
2006	13.2	9.0

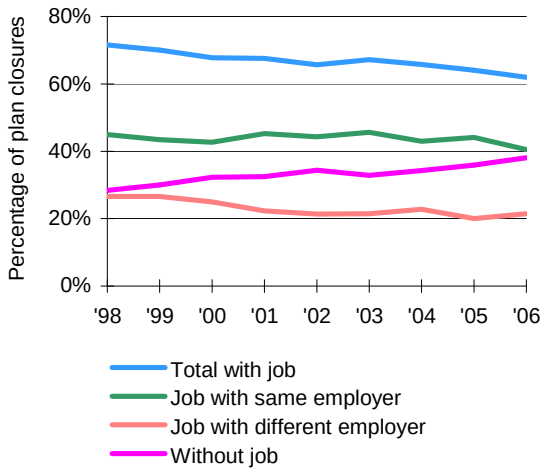
1. Developed statistics from DLI data (see Appendix C). Years prior to 2002 are not shown because of data-quality issues.

Return-to-work status: same vs. different employer

A key measure of VR performance is whether the injured workers receiving VR services return to work when the VR plans are closed. Return to work is affected by many factors, including the job market, injury severity, availability of job modifications and claim litigation. The percentage of VR participants with a job at plan closure decreased between 1998 and 2006.

- **The percentage of VR participants with a job at plan closure fell from 72 percent in 1998 to 62 percent in 2006.** This decline involved participants finding jobs with the same employer and those going to a different employer:
  - The percentage with a job at the same employer fell from 45 percent to 41 percent.
  - The percentage with a job at a different employer fell from 27 percent to 21 percent.
- Among plan closures in 2006, the average cost of VR services for participants returning to work with their pre-injury employer ($4,240) was less than half the cost for those going to a different employer ($12,000) and for those not returning to work ($9,540).[11]

Figure 4.5 Return-to-work status: same vs. different employer, injury years 1998-2006 [1]



Injury year	With job: Same employer	With job: Different employer	With job: Total with job	Without job
1998	45.0%	26.6%	71.6%	28.4%
2002	44.3	21.4	65.7	34.3
2003	45.7	21.5	67.2	32.8
2004	43.0	22.8	65.8	34.2
2005	44.1	20.0	64.1	35.9
2006	40.6	21.4	62.0	38.0

1. Developed statistics from DLI data (see Appendix C).

[11] These figures are limited to private service-providers.

Return-to-work status: type of job

Another way of viewing return-to-work status among VR participants is to consider the type of job for those employed at plan closure. The percentage of participants finding the same type of job as their pre-injury job showed little net change during the period examined, while the percentage finding a different type of job fell significantly.

- From 1998 to 2006, the percentage of participants finding a different type of job than their pre-injury job decreased from 31 percent to 23 percent.

- This decline seems to explain much of the decreasing percentage finding employment, and in this respect is similar to the decreasing percentage of participants going to a *different employer* (Figure 4.5).

  - The trends in placements *with a different employer* (Figure 4.5) and placements *in a different type of job* (Figure 4.6) are similar because most placements with a different employer are in a different type of job, while most placements with the pre-injury employer are in the same type of job (with or without modifications).

- Most placements into the same type of job as the pre-injury job involve no job modifications, and this became increasingly true between 1998 and 2006.

- Among plan closures in 2006, the average cost of VR services for injured workers returning to the same type of job *without modifications* was $3,540, less than a third of the cost for injured workers returning to a different type of job ($11,530). The average service cost for injured workers returning to the same type of job *with modifications* was $6,250.[12]

Figure 4.6 Return-to-work status: type of job, plan-closure years 1998-2006 [1]

Injury year	With job				
	Same type of job			Different type of job	Total with job
	Not Modifed	Modifed	Total		
1998	29.8%	10.8%	40.5%	31.1%	71.6%
2002	33.7	8.3	42.0	23.7	65.7
2003	36.2	7.6	43.8	23.4	67.2
2004	33.7	7.1	40.8	25.0	65.8
2005	34.3	7.0	41.3	22.8	64.1
2006	32.4	6.3	38.7	23.3	62.0

1. Developed statistics from DLI data (see Appendix C).

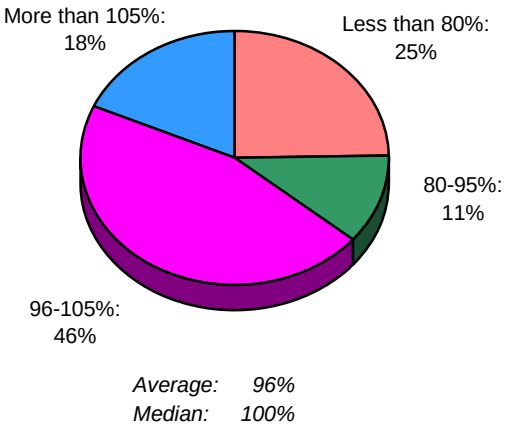
[12] These figures are limited to private service-providers.

Return-to-work wages

The average return-to-work (RTW) wage of VR participants is about the same as their pre-injury wage. However, it varies widely depending on the type of RTW job.

- In 2006, 64 percent of VR participants returning to work earned at least 96 percent of their pre-injury wage, but 25 percent earned less than 80 percent of their pre-injury wage.
- For workers having to find work with a different employer, average RTW wage fell from 94 percent in 2000 to 85 percent by 2004, but increased to 87 percent in 2006.
- For plan closures in 2006, the average RTW wage ratio was:
  - higher for participants who returned to their pre-injury employer (101 percent) than for those who went to a different employer (87 percent); and
  - higher for VR plans of shorter than six months (101 percent) than for longer service durations (e.g., 84 percent for plans longer than 18 months).

Figure 4.7 Ratio of return-to-work wage to pre-injury wage for participants returning to work, plan-closure year 2006 [1]



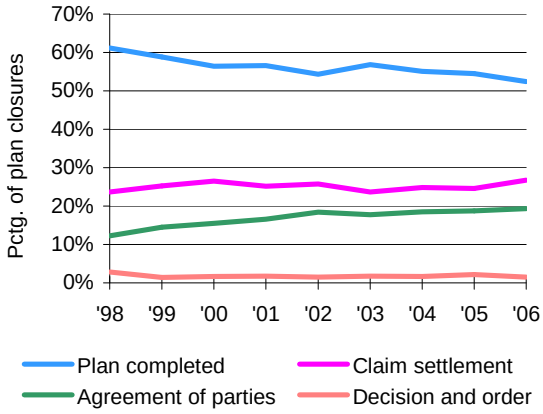
1. Data from DLI.

Reasons for plan closure

A majority of plans close because they are completed, but the percentage closing for this reason fell between 1998 and 2006.

- **The proportion of plans closed because of plan completion fell from 61 percent in injury year 1998 to 53 percent in 2006. Most of the decrease occurred between 1998 and 2002.**
- The proportion of plans closed by agreement of the parties rose from 12 percent in 1998 to slightly over 19 percent for 2006.
- Plan completion almost always involves a return to work. For plans closed for reasons other than completion in 2006, participants returned to work only 28 percent of the time.
- Plan costs vary by type of closure: among closures involving private QRCs in 2006, completed plans averaged $5,400; settlements, $12,640; decision and orders, $11,200; and agreements, $8,170.

Figure 4.8 Reason for plan closure, injury years 1998-2006 [1]



Injury year	Plan completed	Claim settlement	Agreement of parties	Decision and order
1998	61.2%	23.7%	12.3%	2.8%
2002	54.3	25.7	18.4	1.5
2003	56.8	23.7	17.8	1.8
2004	55.0	24.8	18.5	1.7
2005	54.5	24.6	18.7	2.2
2006	52.5	26.7	19.3	1.5

1. Developed statistics from DLI data (see Appendix C).

5

Disputes and dispute resolution

This chapter presents data about workers' compensation disputes and dispute resolution. At the time this report was released, statistics about dispute filings and dispute resolution activity through 2007 were available, and they are therefore included.

Major findings

- The overall dispute rate increased from 15.3 percent of filed indemnity claims in 1997 to 18.7 percent in 2006, a 22-percent increase (Figure 5.1).[13]
- After several years of relative stability, the rate of denial of filed indemnity claims fell from 16.6 percent in 2004 to 12.8 percent in 2006, a 23-pecent decrease. This decrease coincides with the initiation of the DLI denials project, in which DLI is requiring insurers that have not indicated reasons for claim denials in a manner compliant with statute and rules to do so (Figure 5.2).
- For wage-loss claims filed in 2007, the proportion with "prompt first action" (payment initiation or denial within the legal time limit) was 88 percent, an increase from 81 percent in 1997 (Figure 5.3).
- At the Benefit Management and Resolution unit of the Department of Labor and Industry:
  - Dispute certification activity rose 79 percent from 1999 to 2007, in parallel with an increase in dispute certification requests (Figures 5.4 and 5.6).
  - Resolutions by agreement of the parties (usually through informal intervention) fell from 86 percent of the total in 1999 to 77 percent in 2007. Resolutions by decision and order (usually following an administrative conference) increased from 14 percent to 23 percent (Figure 5.10).
- At the Office of Administrative Hearings, the numbers of settlement conferences, discontinuance conferences, and medical and rehabilitation conferences have fallen since 2001.[14] Hearings have increased since 2001, but are below their 1997 level (Figure 5.11).
- At the Workers' Compensation Court of Appeals, the number of cases received fell by nearly half from 1997 to 2006 (Figure 5.12).
- The percentage of paid indemnity claims with claimant attorney fees rose from 14.6 percent in 1997 to 17.9 percent in 2006, a 22-percent increase (Figure 5.13).

Background

The following basic information is necessary for understanding the figures in this chapter. See Appendix A for more detail.

Types of disputes

Disputes in Minnesota's workers' compensation system generally occur over five types of issues:[15]

- denial of primary liability;
- eligibility for and amount of monetary benefits;
- discontinuance of wage-loss benefits;
- medical issues; and
- rehabilitation issues.

[13] See note 6 on p. 9.

[14] Data is not available before 2001.

[15] Disputes also occur about miscellaneous other types of issues, such as attorney fees, which are not considered in this report.

Dispute-resolution process

Depending on the nature of the dispute and the wishes of the parties, dispute resolution may be facilitated by a dispute-resolution specialist in the Benefit Management and Resolution (BMR) unit of the Department of Labor and Industry or by a judge in the Office of Administrative Hearings (OAH). Decisions from BMR can be appealed to OAH; decisions from OAH can be appealed to the Workers' Compensation Court of Appeals (WCCA) and then to the Minnesota Supreme Court.

BMR and OAH carry out a variety of dispute-resolution activities:

DLI Benefit Management and Resolution section activities

Informal intervention — A process in which BMR provides information or assistance to prevent a potential dispute, or communicates with the parties to resolve a dispute and/or determine whether a dispute should be certified. A resolution through intervention may occur either during or after the dispute certification process. The goal is to avoid a longer, more formal and costly process.

Dispute certification — A process required by statute for a medical or rehabilitation dispute, in which BMR must certify that a dispute exists and informal intervention did not resolve the dispute before an attorney may charge for services. BMR specialists attempt to resolve the dispute informally during the certification process.

Mediation — If the parties agree to participate, a BMR specialist conducts a mediation to seek agreement on the issues. Mediation agreements are usually recorded in an "award on agreement." Any type of dispute is eligible for mediation.

Administrative conference and decision and order — An administrative conference is an expedited, informal proceeding where the parties present and discuss viewpoints in a dispute. BMR conducts administrative conferences on rehabilitation issues and on medical issues involving $7,500 or less where the issues are presented on a *Rehabilitation Request* or a *Medical Request* form.[16] The BMR specialist usually attempts to bring the parties to agreement during the conference. If agreement is not achieved, the specialist issues a "decision and order." If BMR believes a dispute under its jurisdiction does not require a conference, it may issue a "nonconference decision and order."

Office of Administrative Hearings activities

Settlement conference — OAH conducts settlement conferences in litigated cases to achieve a negotiated settlement, where possible, without a formal hearing.

Administrative conference — Where the dispute filer has requested a conference, OAH conducts administrative conferences on discontinuance disputes and on medical disputes involving more than $7,500. The OAH judge conducting the conference issues a "decision and order."

Formal hearing — OAH conducts formal hearings on disputes presented on claim petitions (see "claim petition disputes" below) and on other petitions where resolution through a settlement conference is not possible. OAH also conducts hearings on some discontinuance disputes (see "discontinuance disputes" below), disputes referred by BMR because they do not seem amenable to less formal resolution and disputes about miscellaneous issues such as attorney fees. OAH also conducts hearings *de novo* when requested by a party that disagrees with an administrative-conference or nonconference decision and order.

Counting disputes

Four "dispute" categories are used in this report:

Claim petition disputes — Disputes about primary liability and indemnity benefit issues are typically filed on a claim petition, which triggers a formal hearing or settlement conference at OAH. Some medical and vocational rehabilitation disputes are also filed on claim petitions.

[16] This threshold was increased from $1,500 by the 2005 Legislature. Issues may also be referred to OAH for other reasons, such as if a request involves surgery or primary liability, litigation is pending at OAH or the issues are unusually complex.

Discontinuance disputes — Discontinuance disputes are most often initiated when the claimant requests an administrative conference (usually by phone) in response to the insurer's declared intention to discontinue temporary total or temporary partial benefits. These disputes may also be presented on the claimant's *Objection to Discontinuance* form or the insurer's petition to discontinue benefits, either of which leads to a hearing at OAH.

Medical request disputes — Medical disputes are usually filed on a *Medical Request* form, which triggers an administrative conference at BMR or OAH after BMR certifies the dispute.

Rehabilitation request disputes — Vocational rehabilitation disputes are usually filed on a *Rehabilitation Request* form, which leads to an administrative conference at BMR after BMR certifies the dispute.

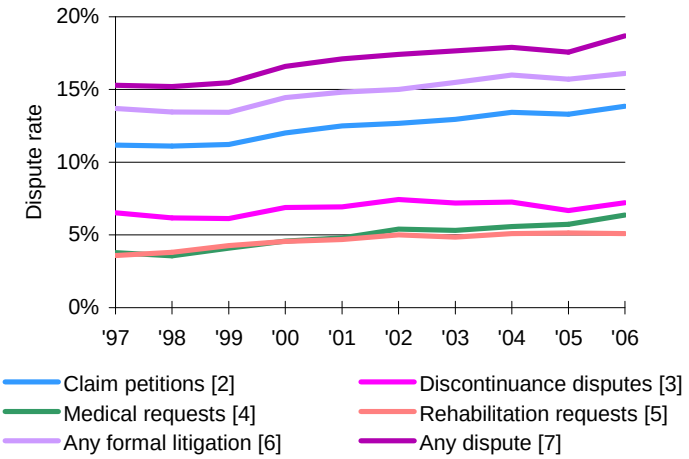
Many disputes, especially those handled by BMR through informal intervention, are not counted in these categories.

Dispute rates

After a period of stability from 1997 to 1999, the dispute rate rose sharply from 1999 to 2006.

- The overall dispute rate increased from 15.3 percent in 1997 to 18.7 percent in 2006, a 22-percent increase.[17] During the same period:
  - the rate of claim petitions rose 2.7 percentage points (24 percent);
  - the rate of discontinuance disputes rose 0.7 point (10 percent);
  - the rate of medical requests rose 2.6 points (68 percent);
  - the rate of rehabilitation requests rose 1.5 points (42 percent); and
  - the rate of formal litigation rose 2.4 points (18 percent).

Figure 5.1 Incidence of disputes, injury years 1997-2006 [1]

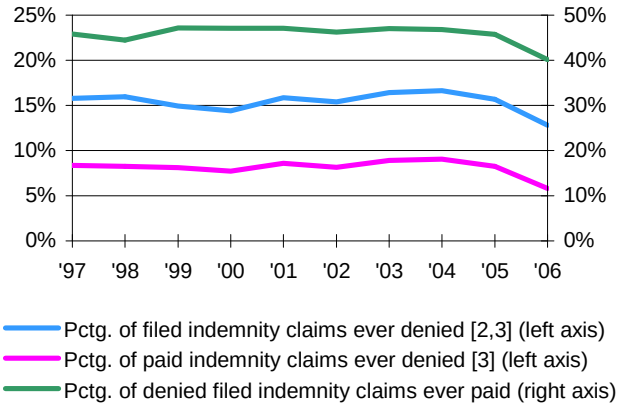


Injury year	Dispute rate: Claim petitions [2]	Discontinuance disputes [3]	Medical requests [4]	Rehabilitation requests [5]	Any formal litigation [6]	Any dispute [7]
1997	11.2%	6.5%	3.8%	3.6%	13.7%	15.3%
1999	11.2	6.1	4.1	4.3	13.4	15.5
2002	12.7	7.4	5.4	5.0	15.0	17.4
2003	12.9	7.2	5.3	4.9	15.5	17.7
2004	13.4	7.3	5.6	5.1	16.0	17.9
2005	13.3	6.7	5.7	5.1	15.7	17.6
2006	13.9	7.2	6.4	5.1	16.1	18.7

1. Developed statistics from DLI data (see Appendix C).
2. Percentage of filed indemnity claims with claim petitions. (Filed indemnity claims are claims for indemnity benefits, whether ultimately paid or not.)
3. Percentage of paid wage-loss claims with discontinuance disputes.
4. Percentage of paid indemnity claims with medical requests.
5. Percentage of paid indemnity claims with rehabilitation requests.
6. Percentage of filed indemnity claims with disputes that lead to a hearing at OAH (unless the parties settle beforehand). These disputes include claim petitions, requests for formal hearing, objections to discontinuance, petitions to discontinue benefits, petitions for permanent total disability benefits and petitions for dependency benefits.
7. Percentage of filed indemnity claims with any disputes.

[17] See note 6 on p. 9.

Figure 5.2 Indemnity claim denial rates, injury years 1997-2006 [1]



Injury year	Filed indemnity claims [2] Total	Filed indemnity claims [2] Pctg. ever denied [3]	Paid indemnity claims Total	Paid indemnity claims Pctg. ever denied [3]	Pctg. of denied filed indemnity claims ever paid
1997	38,900	15.8%	33,600	8.4%	45.8%
2000	39,800	14.4	34,800	7.7	47.1
2002	34,000	15.4	29,600	8.2	46.2
2003	31,800	16.4	27,600	8.9	47.0
2004	31,000	16.6	26,700	9.0	46.8
2005	30,900	15.7	26,800	8.3	45.7
2006	29,200	12.8	25,800	5.8	40.1

1. Developed statistics from DLI data.
2. Filed indemnity claims are claims for indemnity benefits, including claims paid and claims never paid.
3. Denied claims include claims denied and never paid, claims denied but eventually paid and claims initially paid but later denied.

Denials

Denials of primary liability are of interest because they frequently generate disputes. After several years of moderate variation with no significant upward or downward trend, the denial rate turned sharply downward in 2006.

- The rate of denial of filed indemnity claims was 12.8 percent in 2006, down 2.9 percentage points (18 percent) from 2005 and 3.8 points (23 percent) from its high point in 2004.

- The proportion of paid indemnity claims that had also been denied was roughly 8 to 9 percent from 1997 through 2005, but fell to 5.8 percent in 2006. (These include cases denied and then paid plus cases paid and then denied.)

- Among filed indemnity claims with denials, the proportion ever paid ranged from 44 to 47 percent from 1997 through 2005, but fell from 46 percent to 41 percent between 2005 and 2006.

- These sharp decreases coincide with the initiation of the DLI denials project, which began in November 2005.[18] In this project, DLI is requiring insurers that have not indicated reasons for claim denials in a manner compliant with statute and rules to do so. The pronounced decreases in the different denial rates suggest insurers may be making fewer denials believing some denials they otherwise would have made might not withstand DLI scrutiny.

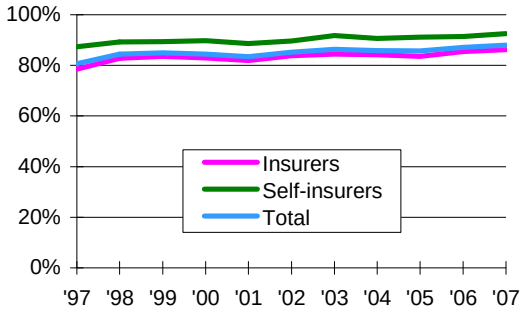
[18] See "DLI primary liability determination review process," in *CompAct*, August 2006, www.doli.state.mn.us/pdf/0806c.pdf.

Prompt first action

Insurers must either begin payment on a wage-loss claim or deny the claim within 14 days of when the employer has knowledge of the injury.[19] This "prompt first action" is important not only for the sake of the injured worker, but also because disputes are less likely if the insurer responds promptly to the claim. The prompt-first-action rate has increased since 1997.[20]

- The fiscal year 2007 prompt-first-action rate was 88 percent, a 7-percentage-point increase from 1997.
- The prompt-first-action rate is higher for self-insurers than for insurers.

Figure 5.3 Percentage of lost-time claims with prompt first action, fiscal claim-receipt years 1997-2007 [1]



Fiscal year of claim receipt	Insurers	Self-insurers	Total
1997	78.5%	87.3%	80.7%
2003	84.5	91.8	86.4
2004	84.2	90.7	85.9
2005	83.6	91.2	85.7
2006	85.5	91.4	87.1
2007	86.2	92.5	88.0

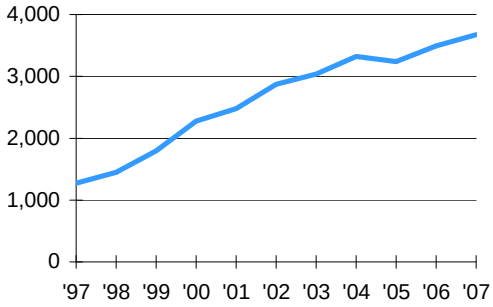
1. Computed from DLI data by DLI Benefit Management and Resolution. See DLI Benefit Management and Resolution, *2007 Prompt First Action Report.* Fiscal claim-receipt year means the fiscal year in which DLI received the claim. Fiscal years are from July 1 through June 30; for example, July 1, 2006 through June 30, 2007 is fiscal year 2007.

Dispute certification requests

The absolute numbers of disputes and of dispute certification requests are important for understanding data to be presented in Figures 5.6-5.12 about the volume of dispute resolution activity at BMR, the Office of Administrative Hearings and the Workers' Compensation Court of Appeals.

- **The number of dispute certification requests grew from about 1,300 in 1997 to 3,700 in 2007.**
- These requests constitute only part of the demand for dispute certification at BMR, because many medical and rehabilitation requests are not preceded by certification requests, but the dispute certification process still occurs in those cases.

Figure 5.4 Dispute certification requests filed, calendar years 1997-2007 [1]



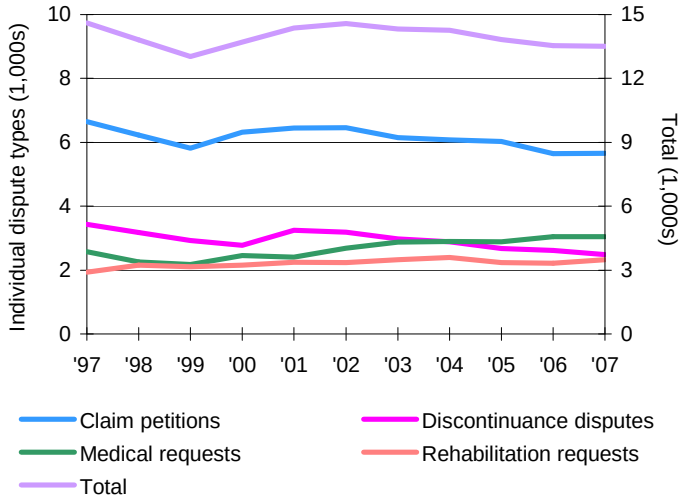
Calender year	Requests filed
1997	1,270
2003	3,040
2004	3,320
2005	3,240
2006	3,490
2007	3,680

1. Data from DLI. Numbers rounded to nearest 10.

[19] Minnesota Statutes §176.221.

[20] To improve system performance, BMR publishes the annual *Prompt First Action Report* about the prompt-first-action performance of individual insurers and self-insurers and of the overall system.

Figure 5.5 Disputes filed, calendar years 1997-2007 [1]



Calendar year filed	Claim petitions		Discontinuance disputes		Medical requests		Rehabilitation requests		Total [2]
	Number	Pctg. of total	Number	Pctg. of total	Number	Pctg. of total	Number	Pctg. of total	
1997	6,650	46%	3,430	23%	2,580	18%	1,940	13%	14,600
2003	6,150	43	2,980	21	2,880	20	2,330	16	14,330
2004	6,080	43	2,890	20	2,900	20	2,400	17	14,260
2005	6,030	44	2,680	19	2,890	21	2,230	16	13,830
2006	5,650	42	2,620	19	3,050	23	2,220	16	13,540
2007	5,650	42	2,490	18	3,050	23	2,320	17	13,510

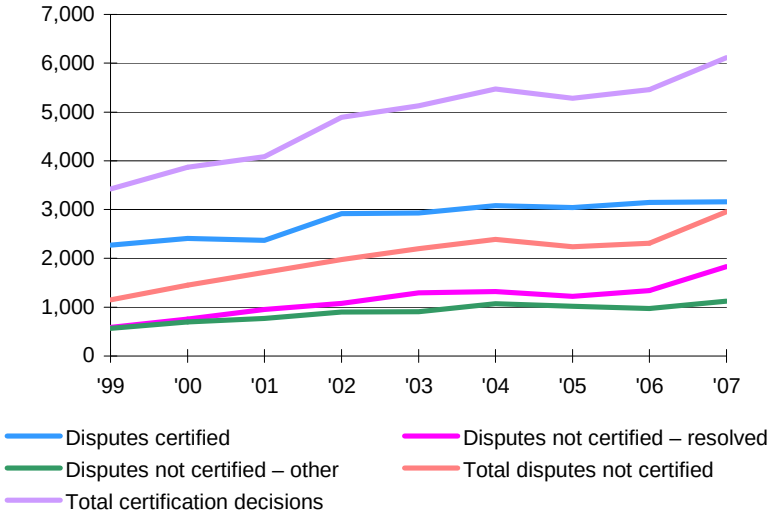
1. Data from DLI. Numbers rounded to nearest 10.
2. Total of those dispute types shown here.

Disputes filed

The numbers of claim petitions and of discontinuance disputes fell between 1997 and 2007; the numbers of medical and rehabilitation requests increased; the total number of these disputes fell.

- From 1997 to 2007:
  - claim petitions fell 15 percent;
  - discontinuance disputes fell 27 percent;
  - medical requests rose 18 percent;
  - rehabilitation requests rose 20 percent; and
  - the total number of these disputes fell 7 percent.
- In 2007, claim petitions accounted for 42 percent of all disputes filed; medical requests were the second-most-prevalent dispute type.
- These trends are the net result of higher dispute rates (Figure 5.1) and falling numbers of claims (Figure 5.2).

Figure 5.6 Dispute certification activity at DLI Benefit Management and Resolution, calendar years 1999-2007 [1]



Calendar year	Disputes certified		Disputes not certified						Total certification decisions
			Resolved		Other reasons		Total not certified		
	Number	Pctg. of total	Number	Pctg. of total	Number	Pctg. of total	Number	Pctg. of total	
1999	2,270	66%	590	17%	570	17%	1,150	34%	3,420
2003	2,930	57	1,300	25	910	18	2,200	43	5,130
2004	3,080	56	1,320	24	1,070	20	2,390	44	5,470
2005	3,040	58	1,220	23	1,020	19	2,240	42	5,280
2006	3,140	58	1,340	25	980	18	2,310	42	5,460
2007	3,160	52	1,830	30	1,120	18	2,960	48	6,110

1. Data from DLI. Data not available before 1999. Numbers rounded to nearest 10.

Dispute certification

Dispute certification activity at BMR increased from 1999 to 2007.

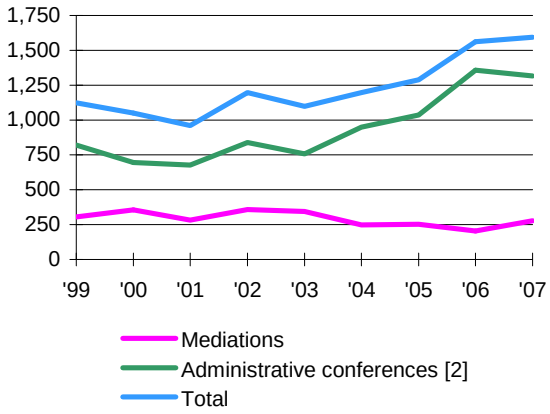
- BMR produced 6,110 certification decisions in 2007, an increase of 79 percent from 1999.
  - ➢ This parallels the increase in certification requests in Figure 5.4.
  - ➢ The number of certification decisions is greater than the number of certification requests in Figure 5.4 because many medical and rehabilitation requests are not preceded by certification requests, but dispute certification still occurs in those cases.
- Between 1999 and 2007, the percentage of disputes certified fell from 66 percent to 52 percent. This was primarily attributable to an increase in the percentage of disputes not certified because they were resolved.
- **Among the disputes not certified, the percentage resolved rose from 51 percent in 1999 to 62 percent in 2007. In the remaining cases not certified, no dispute was found to exist.**
- The sharp increase in 2007 in disputes not certified because they were resolved coincides with recent changes in BMR: earlier identification of dispute resolution opportunities, greater emphasis on early dispute resolution, and more active management of the dispute resolution process.

Mediations and administrative conferences at DLI

The number of administrative conferences at BMR has increased since 1999, while the number of mediations has recently reversed a downward trend.

- From 1999 to 2007:
  - administrative conferences rose by 500;
  - mediations fell by 20; and
  - total conferences and mediations increased by 470.[21]
- The increase in total conferences and mediations is to be expected in view of the increase in medical and rehabilitation requests during the same period (Figure 5.5). Another contributing factor is that, as mentioned above, the 2005 legislature increased the monetary threshold for referring medical requests from BMR to OAH from $1,500 to $7,500.
- Mediations increased sharply in 2007 while administrative conferences declined. This coincides with a recently increased emphasis in BMR on mediation and other early dispute resolution activities.

Figure 5.7 Mediations and administrative conferences at DLI Benefit Management and Resolution, calendar years 1999-2007 [1]



Calendar year	Mediations	Administrative conferences [2]	Total
1999	300	820	1,120
2003	340	760	1,100
2004	250	950	1,200
2005	250	1,040	1,290
2006	200	1,360	1,560
2007	280	1,320	1,590

1. Data from DLI. Data not available before 1999. Numbers rounded to nearest 10.
2. Includes conferences where agreement was reached.

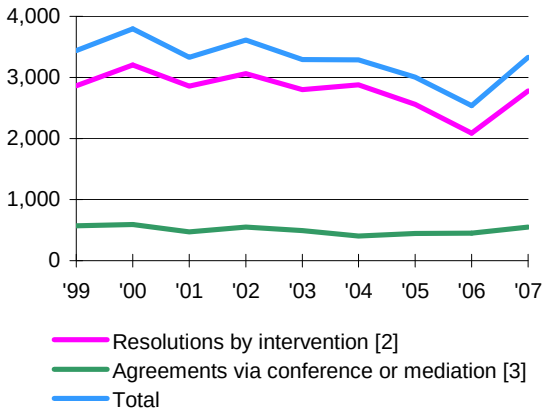
[21] Numbers do not add because of rounding.

Resolutions by agreement at DLI

After declining from 1999 to 2006, the number of resolutions by agreement at BMR turned upward sharply in 2007.

- From 1999 to 2006, the total number of resolutions by intervention fell from 2,860 to 2,090. In 2007, however, the number of these resolutions rose by nearly 700 to 2,780.
- The number of agreements via mediation or conference, by contrast, decreased from 1999 to 2004 and increased between 2004 and 2007.
- The total number of resolutions by agreement followed the same pattern as the number of resolutions by intervention.
- Recent enhancements in the BMR dispute resolution process, described on p. 32, probably explain at least some of the increase in resolutions by intervention and in agreements via mediation or conference in 2007.

Figure 5.8 Resolutions by agreement at DLI Benefit Management and Resolution, calendar years 1999-2007 [1]



Calendar year	Resolutions by intervention [2]	Agreements via mediation or conference [3]	Total
1999	2,860	570	3,440
2003	2,800	490	3,290
2004	2,880	410	3,290
2005	2,560	440	3,000
2006	2,090	450	2,540
2007	2,780	550	3,330

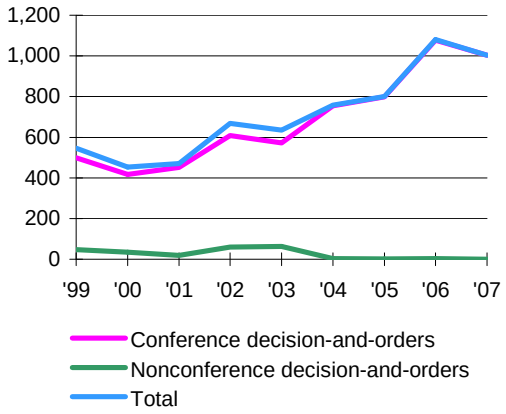
1. Data from DLI. Data not available before 1999. Numbers rounded to nearest 10.
2. These are instances in which a DLI ADR specialist, through phone or walk-in contact or correspondence, resolved a dispute prior to a mediation or conference. Many of these resolutions occur through the dispute certification process.
3. These include mediation awards and other agreements.

Resolutions by decision and order at DLI

The number of resolutions by decision and order at BMR increased from 1999 to 2006 but reversed direction in 2007.

- The total number of decision-and-orders increased from 550 to 1,080 between 1999 and 2006, but fell back to 1,000 by 2007.
- The vast majority of decision-and-orders are via conference (there were no nonconference decision-and-orders in 2007).
- The trend in conference decision-and-orders parallels the trend in administrative conferences (Figure 5.7).
- The decrease in decision-and-orders in 2007 coincides with the recently increased emphasis in BMR on mediation and other early dispute resolution activities.

Figure 5.9 Resolutions by decision and order at DLI Benefit Management and Resolution, calendar years 1999-2007 [1]



Calendar year	Conference decision-and-orders	Non-conference decision-and-orders	Total
1999	500	50	550
2003	570	60	640
2004	760	[2]	760
2005	800	[2]	800
2006	1,080	[2]	1,080
2007	1,000	0	1,000

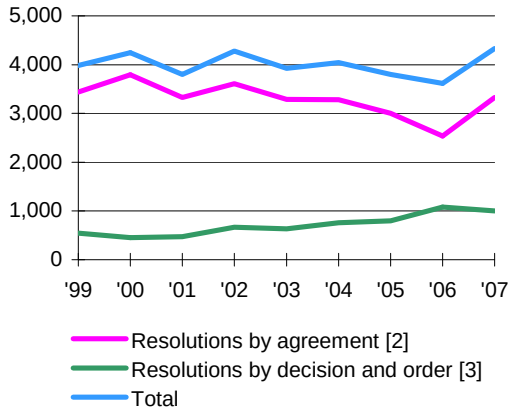
1. Data from DLI. Data not available before 1999. Numbers rounded to nearest 10.
2. Fewer than five cases.

Total resolutions at DLI

The total number of resolutions at BMR was higher in 2007 than in 1999. Resolutions by agreement were at about the same level in 2007 as in 1999, while resolutions by decision and order were higher.

- The number of resolutions by agreement fell by 900 (26 percent) from 1999 to 2006, but returned to nearly their 1999 level in 2007.
- The number of resolutions by decision and order rose by 530 (98 percent) from 1999 to 2006, but fell slightly in 2007.
- **Resolutions by agreement accounted for 77 percent of all resolutions in 2007, down from 86 percent in 1999, but up from 70 percent in 2006. As indicated in Figure 5.8, most resolutions by agreement are by intervention in disputes before they reach mediation or conference.**

Figure 5.10 Total resolutions at DLI Benefit Management and Resolution, calendar years 1999-2007 [1]



Calendar year	Resolutions by agreement [2]		Resolutions by decision and order [3]		Total
	Number	Pctg.	Number	Pctg.	
1999	3,440	86%	550	14%	3,980
2003	3,290	84	640	16	3,930
2004	3,290	81	760	19	4,040
2005	3,000	79	800	21	3,800
2006	2,540	70	1,080	30	3,620
2007	3,330	77	1,000	23	4,330

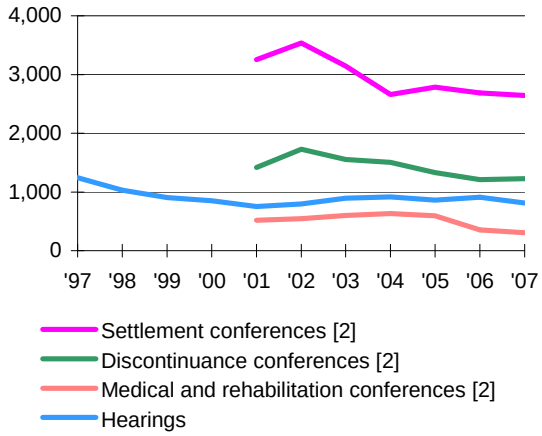
1. Data from DLI. Data not available before 1999. Number rounded to nearest 10.
2. From Figure 5.8.
3. From Figure 5.9.

Dispute resolution at OAH

At OAH, the numbers of settlement conferences, discontinuance conferences, and medical and rehabilitation conferences have fallen since 2001. Hearings have increased since that time, but are below their 1997 level.

- From fiscal year 2001 to 2007:
  - settlement conferences fell by about 610 (19 percent);
  - discontinuance conferences fell by 190 (13 percent);
  - medical and rehabilitation conferences fell by 210 (41 percent); and
  - hearings increased by 60 (8 percent).
- Hearings decreased during the late 1990s but were fairly stable from 2000 to 2007. Hearings in 2007 were down by about 430 from 1997 (34 percent).
- The trends for discontinuance conferences and hearings roughly follow the associated dispute trends in Figure 5.5.[22]
- The decrease in medical and rehabilitation conferences between 2005 and 2006 is to be expected because, as mentioned above, the 2005 legislature increased the monetary threshold for referring medical requests from BMR to OAH from $1,500 to $7,500.

Figure 5.11 Dispute resolution activity at the Office of Administrative Hearings, fiscal years 1997-2007 [1]



Fiscal year	Settlement conferences [2]	Discontinuance conferences [2]	Medical and rehab conferences [2]	Hearings
1997				1,240
2001	3,254	1,415	516	753
2003	3,143	1,551	601	895
2004	2,661	1,506	633	914
2005	2,784	1,328	595	860
2006	2,687	1,211	356	910
2007	2,643	1,224	306	814

1. Data from OAH.
2. Not available before 2001.

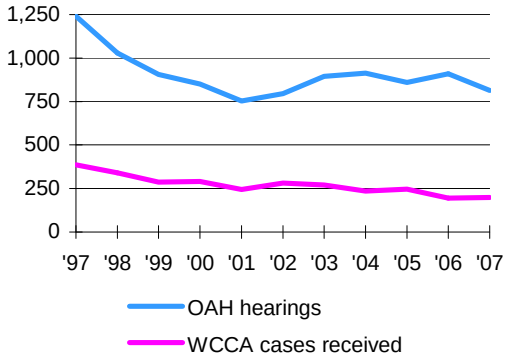
[22]Claim petitions and hearings both fell between 1997 and 2006; discontinuance disputes (most of which involve requests for conference) and discontinuance conferences both fell between 2001 and 2005; total medical and rehabilitation requests and medical and rehabilitation conferences rose between 2001 and 2006. The relationship between medical and rehabilitation requests and OAH conferences is ambiguous because many medical conferences and most rehabilitation conferences occur at BMR. The relationship between settlement conferences and disputes is also ambiguous because these conferences involve all dispute types.

OAH hearings and WCCA cases

Both OAH hearings and cases received at WCCA have declined since 1997.

- The number of cases received at WCCA fell by nearly half from 1997 to 2007, from 386 to 199.
- The number of cases received at WCCA also fell as a percentage of the number of OAH hearings, from 31 percent in 1997 to 24 percent in 2007. This indicates a reduced appeal rate.

Figure 5.12 Hearings at the Office of Administrative Hearings and cases received at the Workers' Compensation Court of Appeals, fiscal years 1997-2007 [1]



Fiscal year	OAH hearings [2]	WCCA cases received [3]	WCCA cases as percentage of OAH hearings
1997	1,240	386	31%
2001	753	245	33
2003	895	271	30
2004	914	236	26
2005	860	247	29
2006	910	196	22
2007	814	199	24

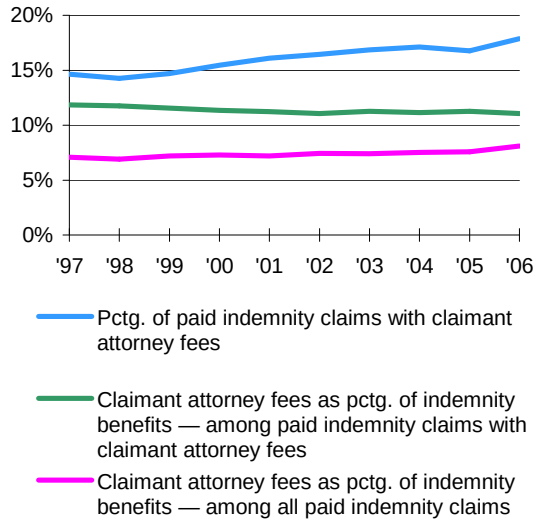
1. Data from OAH and WCCA.
2. From Figure 5.11.
3. Includes cases with and without hearings. Both types of cases are usually disposed of by decisions but sometimes by settlement. Statistics are unavailable about the number of hearings at WCCA. Currently, about 75 percent of cases received have hearings. This percentage has risen over time.

Claimant attorney involvement

Claimant attorney involvement has increased since 1997.

- From 1997 to 2006, the percentage of paid indemnity claims with claimant attorney fees[23] rose from 14.6 percent to 17.9 percent, a 22-percent increase.[24] This parallels a similar increase in the dispute rate (Figure 5.1).
- Among paid indemnity claims with claimant attorney fees, the ratio of attorney fees to indemnity benefits fell from 11.8 percent to 11.0 percent during the same period.
- Among all paid indemnity claims, claimant attorney fees accounted for 7 to 8 percent of indemnity benefits during the period shown.
- **Total claimant attorney fees are estimated at $31 million for injury year 2006. This represents 1.9 percent of total workers' compensation system cost for that year.**
- Among paid indemnity claims that closed in 2006, 66 percent of claimant attorney fees were accounted for by claims with vocational rehabilitation services.

Figure 5.13 Claimant attorney fees paid with respect to indemnity benefits, injury years 1997-2006 [1]



Injury year	Percentage of paid indemnity claims with claimant attorney fees	Claimant attorney fees as percentage of indemnity benefits: Among paid indemnity claims with claimant attorney fees	Claimant attorney fees as percentage of indemnity benefits: Among all paid indemnity claims
1997	14.6%	11.8%	7.1%
2002	16.5	11.1	7.4
2003	16.9	11.3	7.4
2004	17.1	11.1	7.5
2005	16.8	11.2	7.6
2006	17.9	11.0	8.1

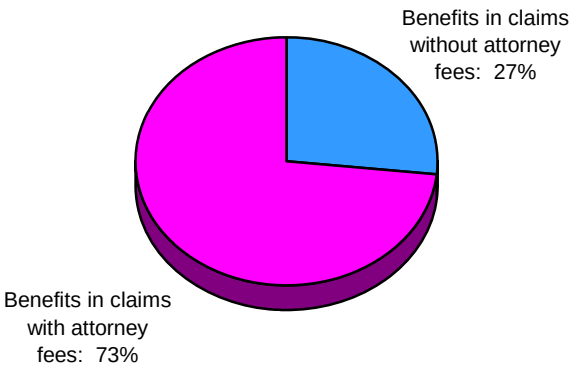
1. Developed statistics from DLI data. Includes claimant attorney fees determined as a percentage of indemnity benefits plus additional amounts awarded to the claimant attorney upon application to a judge. See Appendix C.

Indemnity benefits affected by claimant attorney involvement

Claims with claimant attorney involvement accounted for 73 percent of all indemnity benefits for injury year 2006.

- This is even though these claims accounted for only 18 percent of all paid indemnity claims (Figure 5.13).
- The reason is that claims with attorney involvement had an average of $62,000 in indemnity benefits as opposed to $15,000 for all paid indemnity claims.

Figure 5.14 Indemnity benefits in paid indemnity claims with and without claimant attorney fees, injury year 2006 [1]



1. Data from DLI.

[23] See note 1 in figure.
[24] See note 6 on p. 9.

6

Medical cost detail

An important finding from Chapter 2 is that between policy years 1997 and 2005, average medical benefits per insured claim grew 70 percent after adjusting for wage growth (corrected from first release of this report). This chapter presents additional statistics about medical costs. DLI Policy Development, Research and Statistics (PDRS) computed these statistics from detailed Minnesota workers' compensation medical cost data from a large insurer. The experience of this insurer is not necessarily a close representation of Minnesota's overall workers' compensation system. For example, partly because of active cost-control measures taken by this insurer (see p. 48), its medical cost increases have been less than those of the overall system. However, this insurer has still experienced large cost increases for some types of services and providers, and its experience should provide insight into many of the factors driving the state's workers' compensation medical costs.

The chapter presents analyses by service group and provider group.

Major findings

The following findings emerge from this insurer's data for injury years 1997 to 2006:

From the analysis by service group:

- **After adjusting for average wage growth, per-claim expenditures increased 63 percent for outpatient facility services, 43 percent for inpatient hospital facility services and 41 percent for drugs (Figure 6.3).**

- Of the $374 increase in total medical cost per claim, outpatient facility services accounted for $128 (32 percent), inpatient hospital facility services $68 (17 percent) and radiology $51 (13 percent) (Figure 6.3).

- The average cost of service per claim with service increased for all service groups (except "other" services). By contrast, the percentage of claims with service increased for some service groups and fell for others (Figure 6.4).

- The average nightly cost of inpatient hospital rooms rose 48 percent (Figure 6.5).

- Almost all service categories and subgroups showed an increase in the expensiveness of service mix. This was most pronounced for radiology (Figure 6.5).

- **Service and provider groups not subject to the fee schedule[25] showed the largest increases in cost per unit. A majority of the service and provider groups subject to the fee schedule showed decreases in unit cost (Figure 6.5).**

From the analysis by provider group:

- After adjusting for average wage growth, per-claim expenditures increased 20 percent for nonfacility providers and 19 percent for facility providers (Figure 6.7).

- In-state nonfacility providers contributed $214 (57 percent) of the overall increase of $374, while facility providers contributed $155 (41 percent) (Figure 6.7).[26]

- **The average cost of outpatient services fell 21 percent for large hospitals but increased 18 percent for small hospitals.**

[25] The term "fee schedule" in this report excludes the pharmacy reimbursement formula.

[26] The remaining 4 percent of the overall increase was from out-of-state providers.

The average cost of inpatient services rose 37 percent for large hospitals and 57 percent for small hospitals. Averaged over all claims, costs for small-hospital services rose 37 percent but for large-hospital services were the same in 2006 as in 1997 (Figures 6.7 and 6.8).

General consideration:

- These findings are strongly influenced by cost-control measures initiated or enhanced in recent years by the insurer concerned; these measures have primarily affected facility providers.

Background

Current cost-control mechanisms

The current mechanisms for controlling medical costs in Minnesota's workers' compensation system came about largely in the 1992 law changes and in rules following those changes. The three most important cost-control mechanisms (apart from procedures established by individual insurers) are the medical fee schedule, treatment parameters and the authorization to use certified managed care organizations.

Fee schedule — The fee schedule sets reimbursement limits for a range of medical services in nonhospital and outpatient large-hospital settings.[27] The schedule covers evaluation and management, surgery, radiology, pathology and laboratory services, physical medicine and rehabilitation, chiropractic manipulations and "other medicine."[28] It is a "relative value" schedule. It uses "relative value units" (RVUs) from Medicare adapted for Minnesota. The reimbursement limit for each service is the product of the RVU for that service and a "conversion factor" (CF) indicating the amount of allowable reimbursement per RVU. By law, the CF is adjusted each year by no more than the percent increase in the statewide average weekly wage (SAWW). From 1993 through 2001, the CF was adjusted by the percent increase in the SAWW; beginning in 2002, it has been adjusted by the percent change in the producer price index for physicians.[29]

A separate formula applies to reimbursement of pharmacy charges for nonhospital providers and for large hospitals in outpatient settings.[30] *The term "fee schedule" in this report excludes the pharmacy reimbursement formula.*

Generally, nonhospital services not covered by the fee schedule or pharmacy formula are reimbursed at 85 percent of the provider's "usual and customary charge" (U&C) for the service. All large-hospital inpatient services and those large-hospital outpatient services not covered by the schedule or pharmacy formula are also reimbursed at 85 percent of U&C. All small-hospital services are reimbursed at 100 percent of U&C. For services not covered by the fee schedule or pharmacy formula where the provider is not a small hospital, insurers may instead pay 85 percent of "prevailing charge." Prevailing charge must be computed from charges of similar in-state providers for the same service according to standards in rule.

Treatment parameters — The treatment parameters are guidelines for the treatment of low back pain, neck pain, thoracic back pain and upper extremity disorders. They cover diagnosis (including diagnostic imaging procedures),

[27] Large hospitals are those with more than 100 licensed beds.

[28] "Other medicine" includes certain services not in the above categories but with Current Procedural Terminology (CPT) codes (trademark of the American Medical Association). These include, among others, immunization, psychiatry, ophthalmology, cardiovascular and pulmonary tests and procedures, and neurology and neuromuscular tests and procedures.

[29] The fee schedule distinguishes among four service and provider groups: medical/surgical, physical medicine, pathology and laboratory, and chiropractic. Through Sept. 30, 2005, the RVUs for these groups were scaled relative to one another to bring about reimbursement levels mandated by the 1992 legislature. By a law change effective Oct. 1, 2005, this is achieved instead through different conversion factors for the four groups.

[30] With two exceptions, the maximum reimbursement for drugs in nonhospital and outpatient large-hospital settings is the average wholesale price (AWP) plus a $5.14 dispensing fee (not to exceed the provider's retail price or usual and customary charge). Under a 2005 law change, insurers and self-insurers may negotiate rates with a pharmacy network through which the injured worker must fill prescriptions if the network includes a pharmacy within 15 miles of his or her home. Under a rule change effective April 2006, if electronic billing and payment occur according to standards, the maximum reimbursement in nonhospital and outpatient large-hospital settings is the lowest of 88 percent of AWP plus a $3.65 dispensing fee, the allowable reimbursement under the medical assistance program plus a $3.65 dispensing fee, or the provider's usual and customary charge.

conservative (nonsurgical) treatment, surgical treatment, inpatient hospitalization and chronic management.[31] The rules allow for treatments outside of the parameters if circumstances warrant. Insurers may deny payment for medical services outside of the parameters.[32]

Certified managed care organizations (CMCOs) — Employers and insurers may require workers (with certain exceptions) to obtain medical care for work injuries from providers in a CMCO network. CMCOs are certified by DLI on the basis of statutory criteria. Currently, there are three CMCOs in Minnesota.

Research data

The research data, from a large insurer, includes details about claimant characteristics, injury diagnosis, and medical treatment and cost.

A comparison of the research data with DLI claims data (representing the overall population of claims) shows a general similarity between the two with regard to broad industry group, claimant gender and age, and type of injury. However, compared to the overall population of claims, the research data has somewhat higher proportions of men, younger workers and claims in the construction and retail sectors. Some of these differences disappear when self-insured claims (in the overall claim population) are removed from the comparison.[33]

Analytical approach

To analyze the major contributing factors to medical cost and to medical cost increases, this study first employs a service categorization and then a provider categorization.

The following categories are used in the analysis by service group:

- evaluation and management (e.g., office visits, consultations, emergency room visits, visits with hospital patient);
- surgery;
- anesthesia;
- radiology;
- pathology and laboratory services;
- chiropractic manipulations;
- physical medicine;[34]
- drugs (prescription and nonprescription drugs for use at home or in patient-care settings);
- equipment and supplies;
- inpatient hospital facility services (those not included in the above categories);
- outpatient facility services (those not included in the above categories); and
- other services.[35]

Inpatient hospital facility services and outpatient facility services are limited to services not listed separately, such as the use of the facility itself. Although other services listed may sometimes be provided by the facility (as opposed to an outside provider performing the service in the facility), they are not "facility services" *per se*. Outpatient facilities include hospital outpatient facilities and ambulatory surgical centers (ASCs).

Each service group encompasses all services of the indicated type regardless of provider. For most service groups, the analysis considers relevant subcategories usually relating to provider type. For service groups included in the fee schedule, providers are split into those subject to the schedule and those not. Providers subject to the schedule include all nonhospital providers (including ASCs) other than nursing homes, plus large hospitals where the service is provided in an outpatient setting. Providers not subject to the schedule include small hospitals, large hospitals where the service is provided in an inpatient setting and nursing homes. For drugs, providers are divided into those subject to the drug reimbursement formula and those not.[36]

For service groups not covered by the fee schedule, the analysis distinguishes between facility and nonfacility providers, where facilities include hospitals and ASCs. For outpatient facility services, hospitals and ASCs are considered separately. For inpatient hospital

[31] The parameters concerning chronic management, some hospitalizations and some imaging procedures apply to all injuries.

[32] Medical providers may appeal a denial of payment.

[33] Details available upon request from DLI PDRS.

[34] Includes physical therapy and occupational therapy regardless of provider. Osteopathic manipulations are included in "other services."

[35] Includes "other medicine" (see note 28) and several miscellaneous services such as transportation and dentistry. "Other medicine" and "other services" were treated as separate categories in last year's report, but are now combined.

[36] See note 30.

facility services, the analysis distinguishes between overnight room and other services.

The following categories are used in the analysis by provider group:

- in-state nonfacility providers;
- in-state facility providers; and
- out-of-state providers.

In-state and out-of-state providers are distinguished because the latter are not subject to Minnesota workers' compensation cost-control provisions. Facility providers are divided into large and small hospitals (and further into inpatient vs. outpatient settings), ASCs and nursing homes. Services provided by nonfacility providers and in large-hospital outpatient settings are further divided into those covered by the fee schedule and those not.

The analysis presents data by year of injury for injury years 1997 to 2006 (the most recent year in the research data).[37] It uses 1997 as the base year because 1997 is the earliest year in a period of relatively low medical costs in both the overall insurance data and the research data.

As elsewhere in the report, the statistics are presented at a uniform maturity to be comparable over time. In this chapter, the uniform maturity is five and a half years after the date of injury. For injury years too recent for this level of maturity to have been actually attained, the statistics are "developed," meaning they contain projection factors based on observed data for older claims to transform them to the specified maturity level (see Appendix C).

Because the composition of claims changes over time with respect to gender, age and injury type, all statistics are adjusted for changes in these factors. In addition, as throughout the report, trends in cost per claim are adjusted for average wage growth.[38] Because of these adjustments, the statistics in this chapter show how medical cost and service utilization would have changed during the period examined if gender, age and injury type had remained constant, and they show the degree to which costs have increased faster than general wage growth. Thus, the statistics do not exactly represent trends in actual cost and utilization. Instead, they represent trends due to factors other than changing gender, age and injury type and, where costs are concerned, trends relative to general wage growth.

Terminology

The cost numbers in this chapter do not represent full medical cost for the claims in question, because the numbers are based on payments only, as opposed to payments plus reserves, and the numbers are developed only to a moderate maturity (five and a half years). However, this chapter uses the term "medical cost" for consistency with the remainder of the report.

Throughout the analysis, a distinction is made between the average cost of a type of service *for claims with that service* and the average cost of the service *for all claims*. The latter is important for understanding the contribution of the service group to total medical cost. It is the product of the percentage of claims with the service and the average cost of the service for claims with the service. For convenience, the discussion refers to the average cost of a service for all claims as the cost of the service "per total claim." The same distinction and terminology are used in the analysis by provider group.

[37] See definition of injury year data in Appendix A.

[38] See "Adjustment of cost data for wage growth" in Chapter 1 for rationale. See Appendix C for computational details.

Overall medical cost trend in research data

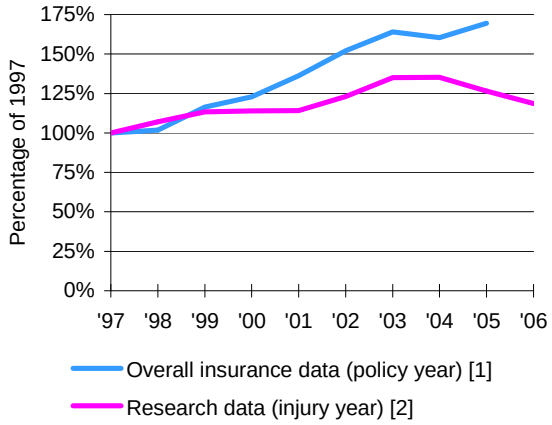
Average workers' compensation medical cost per claim was lower and grew more slowly in the research data than in the overall insurance data (Figure 6.1).

- In the overall insurance data, average medical cost per claim grew by 70 percent from 1997 to 2005 (corrected from first release of this report); in the research data it grew by 27 percent during the same period. Allowing for the decrease in 2006, average medical cost per claim in the research data was 19 percent higher in that year than in 1997.

- For two reasons, the comparison between the research data and the overall insurance data should be viewed with caution:

  - The research data reflects payments only, while the overall insurance data reflects payments plus reserves set aside by insurers to cover expected future costs of the claims concerned. This adds to the average cost per claim in the overall insurance data, and could affect the rate of change in cost per claim in the overall insurance data as well.
  - As previously indicated, the trends in the research data are statistically adjusted to remove the effects of changes in age, gender and injury mix over time; this is not true of the overall insurance data. If, for example, an aging claimant population tends to increase average medical cost, this would be reflected in the overall insurance data but not in the research data.[39]

Figure 6.1 Average medical cost per claim: overall insurance data and research data, 1997-2006



Policy or injury year	Overall insurance data (policy year) [1]		Research data (injury year) [2]	
	Amount per claim	Pctg. of 1997	Amount per claim	Pctg. of 1997
1997	$2,470	100.0%	$2,010	100.0%
1998	2,520	101.8	2,160	107.1
1999	2,880	116.4	2,280	113.4
2000	3,040	122.8	2,290	113.9
2001	3,370	136.2	2,300	114.2
2002	3,760	152.1	2,480	123.2
2003	4,060	164.0	2,720	135.1
2004	3,970	160.4	2,720	135.2
2005 [4]	4,200	169.6	2,550	126.5
2006	[3]	[3]	2,390	118.6

1. From Figure 2.4.
2. Developed statistics computed from data from a large insurer with fixed weights for gender, age and type of injury. Costs are adjusted for average wage growth between the respective year and 2006. (See text.)
3. Not yet available.
4. The 2005 figures for the overall insurance data are corrected versions of those that appeared in the first release of this report.

[39] When alternative computations are done on the research data allowing age and gender to vary in the same manner as for all insured claims (as indicated by DLI data), average adjusted medical cost per claim in the insurance data increases 36 percent from 1997 through 2005 and 28 percent from 1997 through 2006, as opposed to 27 percent and 19 without this modification. This is expected because average claimant age increases during the period. Even with this modification, however, the cost increases in the research data are substantially less than in the overall insurance data.

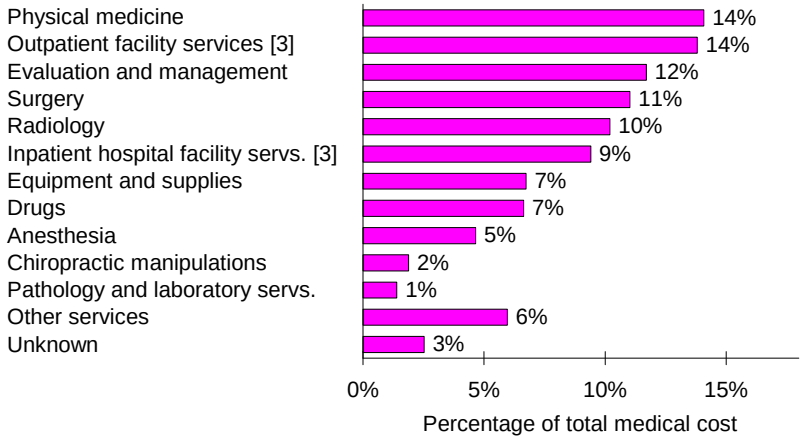
Service group analysis: current cost distribution

The cost of each service group per total claim is the product of (1) the percentage of claims with that type of service and (2) the average cost of that service per claim with the service.

The largest components of total medical cost for injury year 2006 were outpatient facility services and physical medicine (Figure 6.2).

- Physical medicine and outpatient facility services each accounted for 14 percent of total medical cost for 2006.
- The most prevalent types of service (according to the percentage of claims with the service) were evaluation and management (85 percent of claims), drugs (47 percent) and radiology (43 percent).
- **The types of service with the greatest average cost (per claim with the service) were inpatient hospital facility services ($13,100), anesthesia ($1,750) and physical medicine ($1,340).**
- For some service groups, the cost per claim with service varies widely by provider type. This may occur because of differences in quantity of service per claim, complexity of service or cost per unit of service.
  - ➢ Notably, outpatient facility services cost $3,510 per claim with service for ASCs, compared to $750 for outpatient hospital facilities. Determining the meaning of this

Figure 6.2 Medical cost per claim by service group, injury year 2006 [1]



Service group [2]	Pctg. of claims w/ service	Cost per claim w/ service	Cost per total claim	Pctg. of total cost
Physical medicine	25%	$1,340	$340	14%
Providers subject to fee sched. —				
Nonchiropractic providers	*16*	*1,370*	*210*	*9*
Chiropractic providers	*8*	*340*	*30*	*1*
Providers not subj. to fee sched.	*5*	*1,880*	*100*	*4*
Outpatient facility services [3]	33	990	330	14
Outpatient hospital facilities	*32*	*750*	*240*	*10*
Ambulatory surgical centers	*3*	*3,510*	*90*	*4*
Evaluation and management	85	330	280	12
Providers subject to fee schedule	*82*	*320*	*270*	*11*
Providers not subj. to fee schedule	*6*	*240*	*10*	*0.6*
Surgery	32	810	260	11
Providers subject to fee schedule	*31*	*800*	*240*	*10*
Providers not subj. to fee schedule	*2*	*800*	*20*	*0.8*
Radiology	43	560	240	10
Providers subject to fee schedule	*40*	*430*	*170*	*7*
Providers not subj. to fee schedule	*9*	*750*	*70*	*3*
Inpatient hospital facility services [3]	2	13,100	220	9
Overnight room [4]	*2*	*4,750*	*80*	*3*
Other	*2*	*8,920*	*150*	*6*
Equipment and supplies	32	510	160	7
Nonfacility providers	*20*	*260*	*50*	*2*
Facility providers	*17*	*650*	*110*	*5*
Drugs	47	340	160	7
Providers subj. to reimb. formula [5]	*41*	*260*	*100*	*4*
Providers not subj. to formula [5]	*10*	*530*	*50*	*2*
Anesthesia	6	1,750	110	5
Nonfacility providers	*6*	*1,310*	*80*	*3*
Facility providers	*4*	*860*	*30*	*1*
Chiropractic manipulations	9	470	40	2
Pathology and laboratory services	8	400	30	1
Other services	26	550	140	6
Unknown	22	280	60	3
Total	100%	$2,390	$2,390	100%

1. Computed from data from a large insurer (see Appendix C).
2. See text (p. 42) for additional detail about service groups and subcategories.
3. The costs of "facility services" shown here are only for use of the facility and do not include costs of other services (e.g., evaluation and management, radiology, anesthesia) provided by the facilities concerned, and are therefore less than the costs attributed to facility providers in Figure 6.6.
4. Excludes intensive care unit.
5. See note 30 in text.

difference will require further analysis.[40]

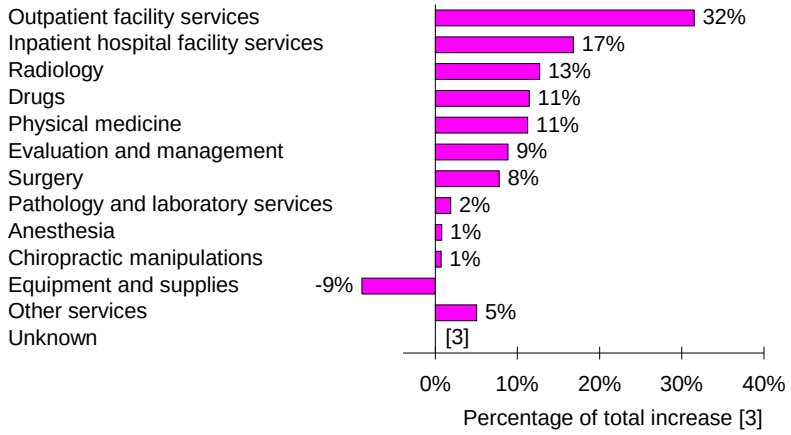
Service group analysis: major contributors to cost increase

Outpatient facility services, inpatient hospital facility services and drugs showed the largest *percent increases* in cost per total claim from 1997 to 2006. Outpatient facility services and inpatient hospital facility services contributed the largest *amounts* to the overall increase in cost per total claim (Figure 6.3).

- After adjusting for average wage growth, cost per total claim increased 63 percent for outpatient facility services, 43 percent for inpatient hospital facility services and 41 percent for drugs.

- Of the $374 increase in total medical cost per claim, outpatient facility services accounted for $128 (32 percent), inpatient hospital facility services $68 (17 percent) and radiology $51 (13 percent). These contributions to the increase in cost per total claim depend on both the *percent increase* in the cost of the service per total claim (column one of Figure 6.3) and the *percentage of total cost* accounted for by the service in 1997, the base year of the analysis period

Figure 6.3 Contributions of service groups to overall change in total medical cost per total claim between injury years 1997 and 2006 [1]



Service group [2]	Percent change in cost per total claim	Amount of change in cost per total claim	Percentage of total cost increase [3]
Outpatient facility services	63%	$128	32%
Outpatient hospital facilities	*27*	*50*	*12*
Ambulatory surgical centers	*479*	*77*	*19*
Inpatient hospital facility services	43	68	17
Overnight room [4]	*19*	*12*	*3*
Other	*61*	*56*	*14*
Radiology	27	51	13
Providers subject to fee schedule	*24*	*34*	*8*
Providers not subj. to fee schedule	*34*	*18*	*4*
Drugs	41	46	11
Providers subj. to reimb. formula [5]	*48*	*34*	*8*
Providers not subj. to formula [5]	*30*	*12*	*3*
Physical medicine	16	46	11
Providers subject to fee sched. —			
Nonchiropractic providers	*11*	*21*	*5*
Chiropractic providers	*-8*	*-2*	*-1*
Providers not subj. to fee sched.	*39*	*27*	*7*
Evaluation and management	15	36	9
Providers subject to fee schedule	*17*	*39*	*10*
Providers not subj. to fee schedule	*-20*	*-3*	*-1*
Surgery	14	31	8
Providers subject to fee schedule	*13*	*27*	*7*
Providers not subj. to fee schedule	*30*	*4*	*1*
Pathology and laboratory services	30	8	2
Anesthesia	3	3	1
Nonfacility providers	*36*	*20*	*5*
Facility providers	*-33*	*-17*	*-4*
Chiropractic manipulations	7	3	1
Equipment and supplies	-18	-36	-9
Nonfacility providers	*4*	*2*	*0*
Facility providers	*-26*	*-38*	*-9*
Other services	17	20	5
Unknown	-34	-31	[3]
Total	19%	$374	100%

1. Developed statistics computed from data from a large insurer with fixed weights for gender, age and type of injury. Costs are adjusted for average wage growth between 1997 and 2006 (see Appendix C).
2. See text (p. 42) for more detail about service groups and provider subcategories.
3. The percent contribution to the total cost change is computed over services with reported (known) type.
4. Excludes intensive care unit.
5. See note 30 in text.

[40] Part of the difference may relate to the complexity of the surgical procedures. For example, 37 percent of the procedures at outpatient hospital facilities were simple wound repairs, as opposed to less than one percent at ASCs.

cost is in column four of Figure 6.2).

- Under outpatient facility services, cost per total claim increased 479 percent for ASCs as opposed to 27 percent for outpatient hospital facilities.[41] ASCs contributed 19 percent of the total cost increase, as compared with 12 percent for outpatient hospital facilities.

- For radiology, cost per total claim increased 34 percent for providers not subject to the fee schedule as opposed to 24 percent for providers subject to the fee schedule.

- For drugs, cost per total claim increased 48 percent for providers subject to the reimbursement formula as opposed to 30 percent for providers not subject to the formula. As noted below, this difference at least partly reflects cost-control measures taken by the insurer concerned with respect to facility providers.[42]

Service group analysis: sources of cost change per total claim

The change in the cost of a type of service per total claim (column 1 of Figure 6.3) can be expressed as the product of two components: (1) the change in the percentage of claims with that service and (2) the change in the average cost of the service for claims with the service (the latter is analyzed more fully below). Figure 6.4 presents these statistics in summary form; Figure 6.4-A, at the end of this chapter, shows the associated annual trends.

The relative importance of the two components in explaining the change in the cost of a service per total claim varies with the service group and with the provider subcategory within the service group.

- The average cost of service per claim with service increased for all service groups (except "other" services), combining provider types. By contrast, the percentage of claims with service increased for some service groups and fell for others.

  - For outpatient hospital facility services, radiology, drugs, evaluation and management and surgery, the increase in cost per total claim resulted from increases in both the percentage of claims with service and average cost per claim with service.
  - For inpatient hospital facility services, physical medicine and some other services, the increase in cost per total claim (or decrease for equipment and supplies) was the combined effect of an increase in average cost per claim with service and a decrease in the percentage of claims with service.

- Significant variation occurs by provider type.

  - Within outpatient facility services, ASCs showed a far larger increase than did outpatient hospital facilities in the percentage of claims with service (324 percent vs. 22 percent) and in the cost of service per claim with service (36 vs. 4 percent). The large percent increase in the percentage of claims with ASC facility services occurred primarily because only 0.6 percent of claims had ASC facility services in 1997.[43]
  - Within anesthesia, nonfacility providers showed a 32-percent increase in average cost per claim with service, while facility providers showed a 23-percent *decrease.* Largely as a result, cost per total claim rose 36 percent in the one category but fell 33 percent in the other.

- These figures are strongly affected by cost-control measures taken in recent years by the insurer concerned. As shown in Figure 6.4-A (at the end of this chapter), the cost of service per claim with service either turned sharply downward or halted a rapid increase in injury year 2004 or 2005 for outpatient facility services, inpatient hospital facility services (other than overnight room), radiology (noncovered providers), drugs (providers not subject to reimbursement formula), physical

[41] As shown in Figure 6.4, the increase for ASCs resulted primarily from an increase in the proportion of claims using ASCs.

[42] As previously indicated, the pharmacy reimbursement formula applies to nonhospital providers and large hospitals in outpatient settings. Providers not subject to the formula consist of large hospitals in inpatient settings and small hospitals.

[43] The 3-percent figure for 2006 (Figure 6.2) is a rounded version of the more exact number, 2.7 percent, which is 324 percent greater than the 1997 figure of 0.6 percent.

Figure 6.4 Components of change in cost per total claim by service group between injury years 1997 and 2006 [1]

Service group [2]	Change in percentage of claims with service	Change in cost of service per claim with service	Change in cost of service per total claim [3]
Outpatient facility services (32%)	27%	29%	63%
Outpatient hospital facilities (12%)	*22%*	*4%*	*27%*
Ambulatory surgical centers (19%)	*324% [8]*	*36%*	*479% [8]*
Inpatient hospital facility services (17%)	-14%	68%	43%
Overnight room (3%) [4]	*-17%*	*43%*	*19%*
Other (14%)	*-12%*	*83%*	*61%*
Radiology (13%)	8%	18%	27%
Providers subject to fee schedule (8%)	*6%*	*17%*	*24%*
Providers not subj. to fee sched. (4%)	*10%*	*22%*	*34%*
Drugs (11%)	25%	13%	41%
Provs subj to reimb formula (8%) [5]	*29%*	*15%*	*48%*
Provs not subj to reimb formula (3%) [5]	*16%*	*12%*	*30%*
Physical medicine (11%)	-6%	22%	16%
Providers subject to fee sched. —			
Nonchiropractic providers (5%)	*-5%*	*17%*	*11%*
Chiropractic providers (-1%)	*-8%*	*0%*	*-8%*
Providers not subj. to fee sched. (7%)	*-7%*	*49%*	*39%*
Evaluation and management (9%) [6]	3%	12%	15%
Surgery (8%) [7]	10%	4%	14%
Pathology and laboratory servs. (2%)	-4%	36%	30%
Anesthesia (1%)	-2%	5%	3%
Nonfacility providers (5%)	*3%*	*32%*	*36%*
Facility providers (-4%)	*-12%*	*-23%*	*-33%*
Chiropractic manipulations (1%)	-5%	13%	7%
Equipment and supplies (-9%)	-22%	5%	-18%
Nonfacility providers (0%)	*-27%*	*42%*	*4%*
Facility providers (-9%)	*-17%*	*-10%*	*-26%*
Other services (5%)	71%	-32%	17%
Total (100%)	0%	19%	19%

1. Developed statistics computed from data from a large insurer with fixed weights for gender, age and type of injury. Costs are adjusted for average wage growth between 1997 and 2006 (see Appendix C).
2. See text (p. 42) for more detail about service groups and provider subcategories. Percent contribution to overall cost increase per total claim (from Figure 6.3) is in parentheses.
3. Equal to the "product" of the first two columns. Technically, col. 3 = (1 + col. 1) x (1 + col. 2) - 1. An approximation (when the percentages are small) is that column 3 is roughly equal to the sum of the first two columns.
4. Excludes intensive care unit.
5. See note 30 in text.
6. Provider groups are not shown under evaluation and management because providers not subject to the fee schedule in this group accounted for only 0.6 percent of total medical cost in 2006 (Figure 6.2).
7. Provider groups are not shown under surgery because providers not subject to the fee schedule in this group accounted for only 0.8 percent of total medical cost in 2006 (Figure 6.2).
8. A bar is not shown here because its length is out of the range for other services and subcategories.

medicine (noncovered providers), pathology and laboratory services, anesthesia (especially facility providers), and equipment and supplies. In addition, the percentage of claims with service turned downward for inpatient hospital facility services (overnight room and other) and anesthesia (especially facility providers). Around the time of these changes, the insurer concerned initiated or expanded several cost-control measures for facility providers, including bill review,[44] use of networks and application of prevailing charge.[45]

[44] Bill review seeks to confirm the reasonableness and necessity of services provided and the appropriateness of service coding and reported quantity of service by examining medical records and other information.

[45] As previously indicated, prevailing charge may be used for non-fee-scheduled services with providers other

Service group analysis: sources of cost change per claim with service

The change in the average cost of a service per claim with that service (second column of bars in Figure 6.4) is the product of the changes in (1) average units of service per claim with the service, (2) average cost per unit (for a given service mix) and (3) the expensiveness of the service mix. Changes in average service costs were divided into these components for those service groups for which it was feasible (see Appendix C). Figure 6.5 shows the results; Figure 6.5-A presents the associated annual trends.

A note on service mix: Each service group encompasses a range of particular services that vary widely in cost because of complexity, skill demands, and use of time and other resources. The expensiveness of the service mix measures the degree to which the services provided tend to be the more costly ones within the group.[46]

- For inpatient hospital rooms, a 48-percent increase in unit cost (cost per night) was mildly counteracted by a 3-percent decrease in average units per claim, resulting in a net 43-percent increase in cost per claim with service.

- For radiology, an increasingly expensive service mix was almost entirely responsible for the increase in cost per claim with service. Service mix became 33 percent more expensive, but this was counteracted by a 15-percent decrease in cost per unit of service.

- For physical medicine, a 12-percent increase in units of service per claim with service accounted for about half of the 22-percent increase in cost per claim with service.

- For evaluation and management (E&M) overall, a majority of the 12-percent increase in cost per claim with service came from a more expensive service mix.

  - Major variation occurred within E&M. New-patient office visits per claim with any E&M service fell by 31 percent, while the other three E&M subgroups showed increases of 9 to 24 percent in their frequency per claim with E&M service.[47] In absolute terms, new-patient office visits decreased by about the same frequency by which established-patient visits increased.[48] Since reimbursement limits are lower for established-patient visits than for new-patient visits, this change may have resulted from increased compliance with rules for coding the two types of visits.
  - The 8-percent increase in service mix expensiveness for E&M overall reflects changes in service mix both within and across the four subgroups. Office consultations are the most expensive of the four subgroups, followed by emergency department visits, new-patient office visits and established-patient office visits.[49] Thus, the increased use of consultations and emergency department visits tends to increase the expensiveness of the overall E&M service mix, while the shift from new-patient to established-patient office visits tends to decrease it.

- For anesthesia, a 21-percent increase in cost per unit of service was partly counteracted by a decrease in units of services per claim with service.

- Almost all service categories and subgroups showed an increase in the expensiveness of service mix. This was most pronounced for radiology.

- Significant variation occurred by provider type.

  - **Services and provider groups not subject to the fee schedule showed the largest increases in unit cost. The largest unit cost increase for a category *subject* to the fee schedule was 8 percent (adjusting for average wage growth), for physical medicine services provided by chiropractors. By contrast, unit cost increased from 21 to 48 percent for services and providers**

than small hospitals. Data for applying prevailing charge has only recently become commercially available.

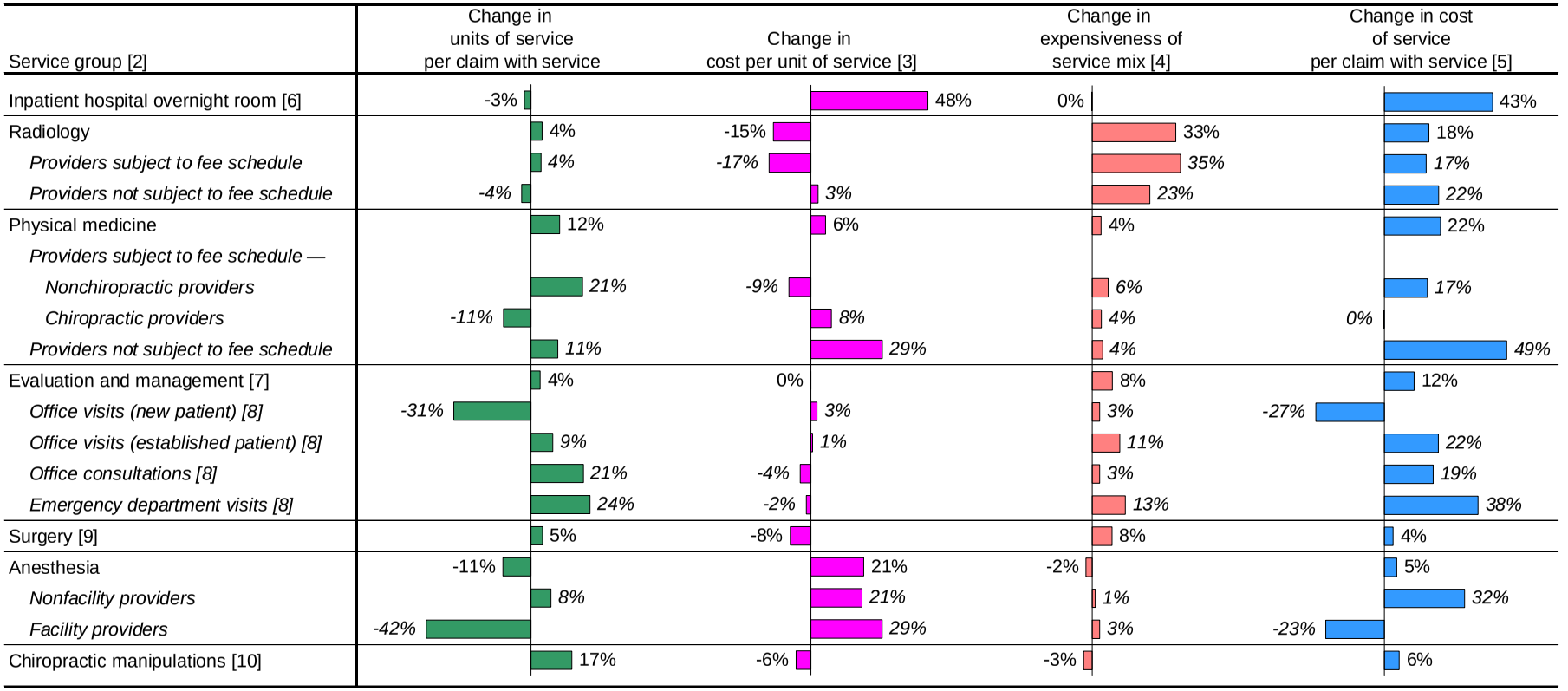
[46] See note 4 in Figure 6.5.

[47] See note 8 in Figure 6.5.

[48] The percent change for established-patient visits is smaller than for new-patient visits because of higher initial frequency for established-patient visits.

[49] This is based on computations of the data.

Figure 6.5 Components of change in cost per claim with service, for selected service groups between injury years 1997 and 2006 [1]



Service group [2]	Change in units of service per claim with service	Change in cost per unit of service [3]	Change in expensiveness of service mix [4]	Change in cost of service per claim with service [5]
Inpatient hospital overnight room [6]	-3%	48%	0%	43%
Radiology	4%	-15%	33%	18%
Providers subject to fee schedule	*4%*	*-17%*	*35%*	*17%*
Providers not subject to fee schedule	*-4%*	*3%*	*23%*	*22%*
Physical medicine	12%	6%	4%	22%
Providers subject to fee schedule —				
Nonchiropractic providers	*21%*	*-9%*	*6%*	*17%*
Chiropractic providers	*-11%*	*8%*	*4%*	*0%*
Providers not subject to fee schedule	*11%*	*29%*	*4%*	*49%*
Evaluation and management [7]	4%	0%	8%	12%
Office visits (new patient) [8]	*-31%*	*3%*	*3%*	*-27%*
Office visits (established patient) [8]	*9%*	*1%*	*11%*	*22%*
Office consultations [8]	*21%*	*-4%*	*3%*	*19%*
Emergency department visits [8]	*24%*	*-2%*	*13%*	*38%*
Surgery [9]	5%	-8%	8%	4%
Anesthesia	-11%	21%	-2%	5%
Nonfacility providers	*8%*	*21%*	*1%*	*32%*
Facility providers	*-42%*	*29%*	*3%*	*-23%*
Chiropractic manipulations [10]	17%	-6%	-3%	6%

1. Developed statistics computed from data from a large insurer. Results are adjusted to reflect a fixed distribution of claims by gender, age and type of injury over time. Costs are adjusted for average wage growth between 1997 and 2006 (see Appendix C).
2. See text (p. 42) for additional detail about service groups and subcategories.
3. Computed for a fixed service mix within the service group (see Appendix C).
4. The "expensiveness of the service mix" is the average cost per unit of service for the overall service group as affected by changes in the service mix within the group, holding constant the cost per unit of particular services (see Appendix C).
5. Equal to the "product" of the first three columns. Technically, col. 4 = (1 + col. 1) x (1 + col. 2) x (1 + col. 3) - 1. An approximation (when the percentages are small) is that column 4 is roughly equal to the sum of the first three columns.
6. Excludes intensive care unit. Service mix for this category pertains to the mix between private and semiprivate rooms.
7. Provider groups are not shown under evaluation and management because providers not subject to the fee schedule in this group accounted for only 0.6 percent of total medical cost in 2006 (Figure 6.2).
8. For the four subgroups under evaluation and management, units of service per claim with service and cost per claim with service (and the associated changes) are expressed relative to the number of claims with any evaluation and management services.
9. Provider groups are not shown under surgery because providers not subject to the fee schedule in this group accounted for only 0.8 percent of total medical cost in 2006 (Figure 6.2).
10. The changes for chiropractic manipulations refer to 1998 to 2006 because service coding changes prevent comparisons before 1998.

***not subject* to the schedule — inpatient hospital overnight rooms, physical medicine (providers not subject to the fee schedule), and anesthesia (facility and nonfacility providers).**

- A majority of the service and provider groups subject to the fee schedule showed decreases in average cost per unit (the most notable exception being physical medicine provided by chiropractors). At least part of the reason for this lies with the conversion factor, which converts the RVUs in the fee schedule to maximum payment amounts per unit of service. Until Oct. 1, 2002, DLI increased the conversion factor annually by the percent change in the SAWW, the maximum allowed by law. Beginning Oct. 1, 2002, DLI began increasing the conversion factor according to the producer price index for physicians' services, which has increased more slowly than the SAWW.[50] This has tended to produce decreases in cost per unit in Figure 6.5 because the changes shown are relative to changes in the SAWW.[51]

[50] This index is published by the U.S. Bureau of Labor Statistics.

[51] Another possible factor is that DLI introduced new RVUs effective Jan. 1, 2001. Determining the effect of this will require further analysis.

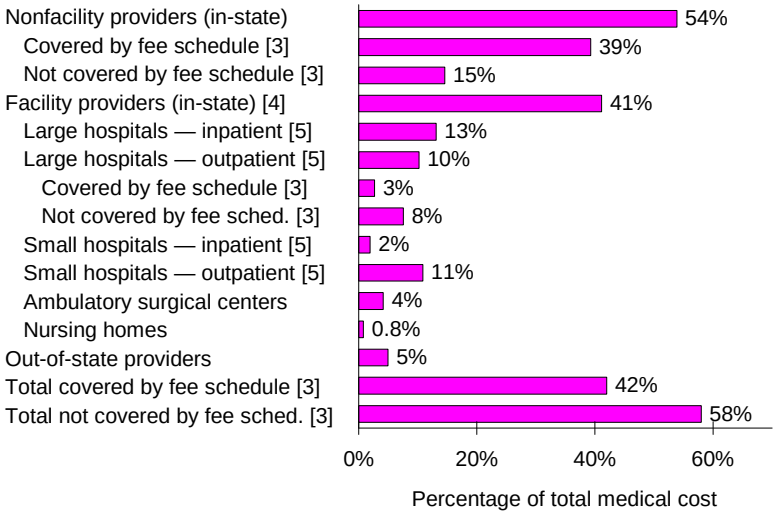
Provider group analysis: current cost distribution

The average cost for each provider type per total claim is the product of (1) the percentage of claims involving that provider type and (2) the average cost for that provider type per claim with that provider type.

Nonfacility providers accounted for a larger share of total medical cost for injury year 2006 than did facility providers. A majority of costs were not covered by the medical fee schedule (Figure 6.6).

- In-state nonfacility providers (e.g., doctors' offices, clinics, nonhospital pharmacies, equipment vendors) accounted for 54 percent of total medical cost for 2006, in-state facility providers 41 percent and out-of-state providers 5 percent.
- Within the facility category, large hospitals accounted for 23 percent of total cost, small hospitals 13 percent and ambulatory surgical centers (ASCs) 4 percent.
  - Somewhat more than half of large-hospital costs were for inpatient services, while most small-hospital costs were for outpatient services.
- About 42 percent of all costs were covered by the fee schedule.
  - Most costs involving nonfacility providers were covered by the fee schedule; for large-hospital outpatient services, the opposite was true. While large-

Figure 6.6 Medical cost per claim by provider group, injury year 2006 [1]



Provider group [2]	Pctg. of claims w/ service	Cost per claim w/ service	Cost per total claim	Pctg. of total cost
In-state providers	99%	$2,290	$2,270	95%
Nonfacility providers	96	1,340	1,290	54
Covered by fee schedule [3]	95	990	940	39
Not covered by fee schedule [3]	42	840	350	15
Facility providers [4]	40	2,470	980	41
Hospitals [5]	38	2,250	860	36
Large hospitals	23	2,420	560	23
Inpatient	1	21,350	310	13
Outpatient	22	1,090	240	10
Covered by fee schedule [3]	18	360	60	3
Not cov'd by fee sched. [3]	20	900	180	8
Small hospitals	17	1,750	310	13
Inpatient	0.3	16,520	50	2
Outpatient	17	1,490	260	11
Ambulatory surgical centers	3	3,700	100	4
Nursing homes	0.4	5,010	20	0.8
Out-of-state providers	5	2,190	120	5
Total covered by fee schedule [3]	96	1,050	1,000	42
Total not covered by fee sched. [3]	68	2,040	1,380	58
Total	100%	$2,390	$2,390	100%

1. Computed from data from a large insurer (see Appendix C).
2. See text (p. 43) for additional detail about provider groups and subcategories.
3. All drugs, including those covered by the pharmacy reimbursment formula, are counted as not covered by the fee schedule. That is, the "covered" category is limited to services with maximum fees determined by relative value units and a conversion factor.
4. The costs attributed to facility providers here include both "facility services" (i.e., use of the facility) and other services (e.g., evaluation and management, radiology, anesthesia) provided by the facilities, and are therefore greater than the costs of facility services shown in Figure 6.2.

hospital outpatient services are subject to the fee schedule, only a minority of these services (counting by cost) are actually in the schedule. Many of these services, instead, are "facility services."

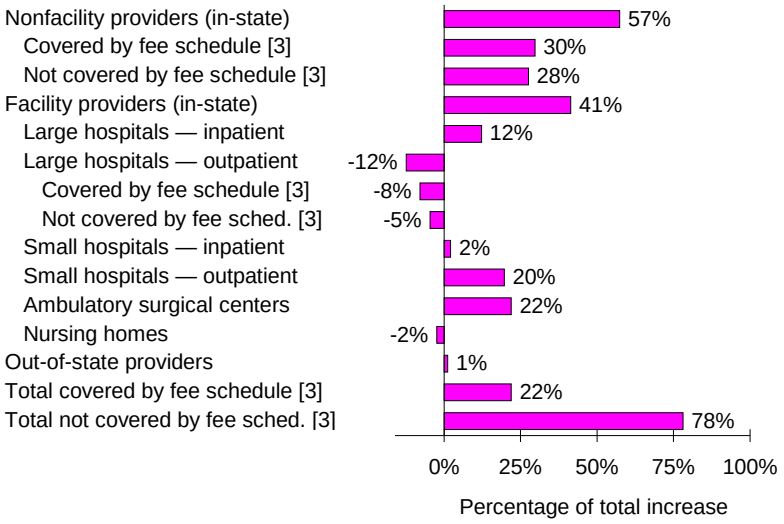
Provider group analysis: major contributors to cost increase

Facility and nonfacility providers showed about the same percent increase in cost per total claim from 1997 to 2006. However, nonfacility providers accounted for a larger share of the overall cost increase than did facility providers. Services not covered by the fee schedule showed a larger percent increase in cost per total claim than did covered services, and accounted for a far larger share of the overall cost increase (Figure 6.7).

- After adjusting for average wage growth, cost per total claim increased 20 percent for nonfacility providers from 1997 to 2006 and 19 percent for facility providers. However, because nonfacility providers represented a larger share of total cost in 1997 (the base year of the analysis period) than did facility providers (53 percent vs. 41 percent), nonfacility providers contributed $214 (57 percent) of the overall increase of $374, while facility providers contributed $155 (41 percent).

  - This is a change from the result for 1997-2005 in the prior *Minnesota Workers' Compensation*

Figure 6.7 Contributions of provider groups to overall change in total medical cost per claim between injury years 1997 and 2006 [1]



Provider group [2]	Percent change in cost per total claim	Amount of change in cost per total claim	Percentage of total cost increase [3]
In-state providers	19%	$369	99%
Nonfacility providers	20	214	57
Covered by fee schedule [3]	13	111	30
Not covered by fee sched. [3]	42	103	28
Facility providers	19	155	41
Hospitals	10	82	22
Large hospitals	0	0	0
Inpatient	17	46	12
Outpatient	-16	-46	-12
Covered by fee schedule [3]	-31	-29	-8
Not covered by fee sched. [3]	-9	-17	-5
Small hospitals	37	82	22
Inpatient	21	8	2
Outpatient	40	74	20
Ambulatory surgical centers	469	82	22
Nursing homes	-31	-9	-2
Out-of-state providers	4	4	1
Total covered by fee schedule [3]	9	82	22
Total not covered by fee sched. [3]	27	292	78
Total	19%	$374	100%

1. Computed from data from a large insurer (see Appendix C).
2. See text (p. 43) for additional detail about provider groups and subcategories.
3. All drugs, including those covered by the pharmacy reimbursment formula, are counted as not covered by the fee schedule. That is, the "covered" category is limited to services with maximum fees determined by relative value units and a conversion factor.

System Report,[52] that facility providers had accounted for a majority of the increase for that period. The change occurred because the cost-control measures recently undertaken by the insurer concerned have primarily affected facility providers.[53]

- Among facility providers, the percent increase in cost per total claim was largest for ASCs (469 percent) and small hospitals (primarily outpatient services, 40 percent). Because of the very large increase for ASCs, those providers contributed 22 percent of the overall increase in medical cost even though they accounted for only 0.9 percent of total cost in 1997. (As shown in the next figure, most of this increase came from an increase in the frequency of use of ASCs.)

- Cost per total claim increased 27 percent during the analysis period for services not covered by the fee schedule, as compared with 9 percent for services not covered by the schedule. Given this, and that services not covered by the fee schedule accounted for 54 percent of total cost in 1997, these services contributed 78 percent of the overall cost increase ($292 of the total $374 per claim), as opposed to 22 percent for covered services.

Provider group analysis: sources of cost change per total claim

The change in cost per total claim related to a particular provider type (column 1 of Figure 6.7) can be expressed as the product of two components: (1) the change in the percentage of claims with services from that provider type and (2) the change in the average cost for that provider type per claim with that provider type. Figure 6.8 presents these statistics in summary form; Figure 6.8-A, at the end of the chapter, shows the associated annual trends.

The relative importance of the two components of change varies by provider group.

- For nonfacility providers, most of the 20-percent increase in cost per total claim came from an increase in the average cost of service per claim with service from that provider type. For facility providers, most of the 19-percent increase in cost per total claim came from an increase in the percentage of claims with services from facility providers.

  - This overall pattern for facility providers also held true for hospitals (overall) and ASCs. For ASCs, the 469-percent overall increase came primarily from a 260-percent increase in the percentage of claims with ASC services. However, a large component also came from a 58-percent increase in the average cost of ASC services per claim with these services.

- The experience of large and small hospitals differed.

  - Both hospital types showed increases in the percentage of claims using their services (9 percent for large hospitals, 18 percent for small hospitals). However, large hospitals showed an 8-percent decrease in the average cost per claim with service, while small hospitals showed a 16-percent increase. The net result was that large hospitals showed no change in average cost per total claim while small hospitals showed a 37-percent increase.
  - As measured by the percentage of claims with service, the use of outpatient services increased for both large and small hospitals while the use of inpatient services decreased for both hospital types.
  - The cost of inpatient services per claim with service rose substantially for both hospital types. By contrast, the cost of outpatient services per claim with service rose for small hospitals (18 percent) but fell for large hospitals (21 percent).

- Experience was different for services covered by the fee schedule and those not. As previously indicated, costs increased 27 percent for services not covered by the fee schedule as opposed to 9 percent for covered services. Most of this difference occurred because the percentage of claims with service

[52] *Minnesota Workers' Compensation System Report, 2005.* Minnesota Department of Labor and Industry, Policy Development, Research and Statistics, January 2008. www.doli.state.mn.us/pdf/wcfact05.pdf.

[53] See p. 48 and Figure 6-8A.

Figure 6.8 Components of change in cost per total claim by provider group between injury years 1997 and 2006 [1]

Provider group [2]	Change in percentage of claims with service	Change in cost of service per claim with service	Change in cost of service per total claim [3]
Nonfacility providers (in-state) (57%)	2%	17%	20%
Covered by fee schedule (30%) [4]	3%	10%	13%
Not covered by fee sched. (28%) [4]	11%	27%	42%
Facility providers (in-state) (41%)	16%	2%	19%
Hospitals (22%)	14%	-3%	10%
Large hospitals (0%)	9%	-8%	0%
Inpatient (12%)	-15%	37%	17%
Outpatient (-12%)	7%	-21%	-16%
Covered by fee sched. (-8%) [4]	-3%	-29%	-31%
Not cov'd by fee sched. (-5%) [4]	10%	-17%	-9%
Small hospitals (22%)	18%	16%	37%
Inpatient (2%)	-23%	57%	21%
Outpatient (20%)	18%	18%	40%
Ambulatory surgical centers (22%)	260% [5]	58%	469% [5]
Out-of-state providers (1%)	-8%	13%	4%
Total covered by fee schedule (22%) [4]	2%	7%	9%
Total not cov'd by fee sched. (78%) [4]	17%	8%	27%
Total (100%)	0%	19%	19%

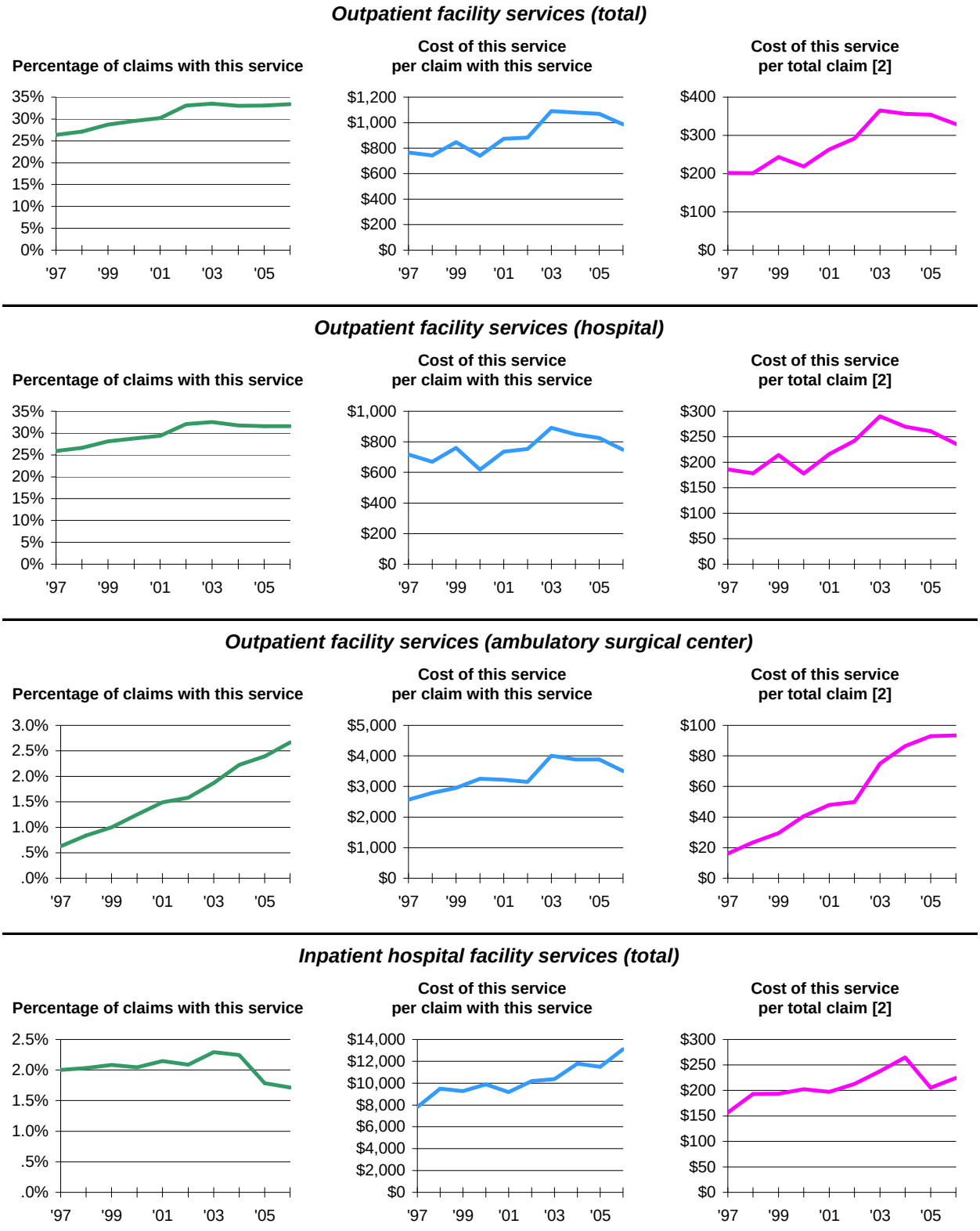
1. Developed statistics computed from data from a large insurer with fixed weights for gender, age and type of injury. Costs are adjusted for average wage growth between 1997 and 2006 (see Appendix C).
2. See text (p. 43) for additional detail about provider groups and subcategories. Percent contribution to overall cost increase per total claim (from Figure 6.6) is in parentheses. Nursing homes are excluded because they accounted for only 0.8 percent of total medical cost for 2006 and a negative two percent of the total medical cost increase (Figures 6.6 and 6.7).
3. Equal to the "product" of the first two columns. Technically, col. 3 = (1 + col. 1) x (1 + col. 2) - 1. An approximation (when the percentages are small) is that column 3 is roughly equal to the sum of the first two columns.
4. All drugs, including those covered by the pharmacy reimbursment formula, are counted as not covered by the fee schedule. That is, the "covered" category is limited to services with maximum fees determined by relative value units and a conversion factor.
5. A bar is not shown here because its length is out of the range for other services and subcategories.

rose 17 percent for services not covered by the schedule as opposed to 2 percent for covered services. In contrast with results for 1997-2005 in the previous *Workers' Compensation System Report*, the cost of service per claim with service rose by roughly the same amount for these two groups for 1997-2006. This reflects the heightened cost-control measures recently undertaken by the insurer concerned, which have primarily affected facility providers, most of whose services are not covered by the fee schedule.

- **The largest increases in cost per claim with service were for providers and settings not covered by the fee schedule — ASCs (58 percent), small-hospital inpatient services (57 percent), large-hospital inpatient services (37 percent) and nonfacility providers not covered by the fee schedule (27 percent).**

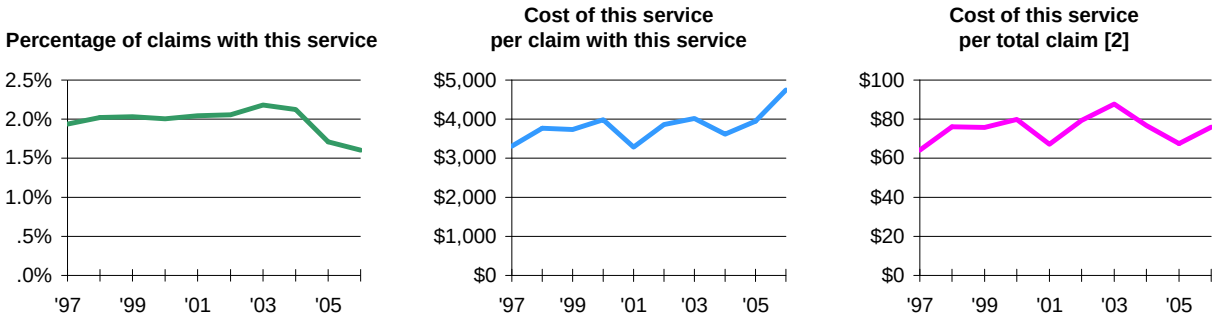
- As previously indicated, the medical cost changes are substantially influenced by cost-control measures taken in recent years by the insurer concerned. In the provider-group classification, as shown in Figure 6.8-A (at the end of this chapter), the cost of service per claim with service turned sharply downward in 2005 for large hospitals and in 2004 for small hospitals. Around the time of these changes, the insurer concerned initiated or expanded several cost-control measures for facility providers, including bill review, use of networks and application of prevailing charge.

Figure 6.4A Components of medical cost per total claim by service group, injury years 1997-2006 [1]

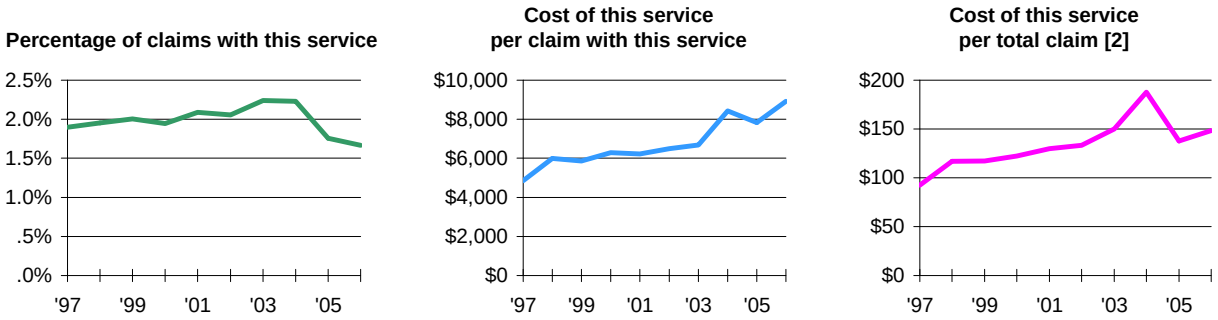


(Notes at end of figure.)

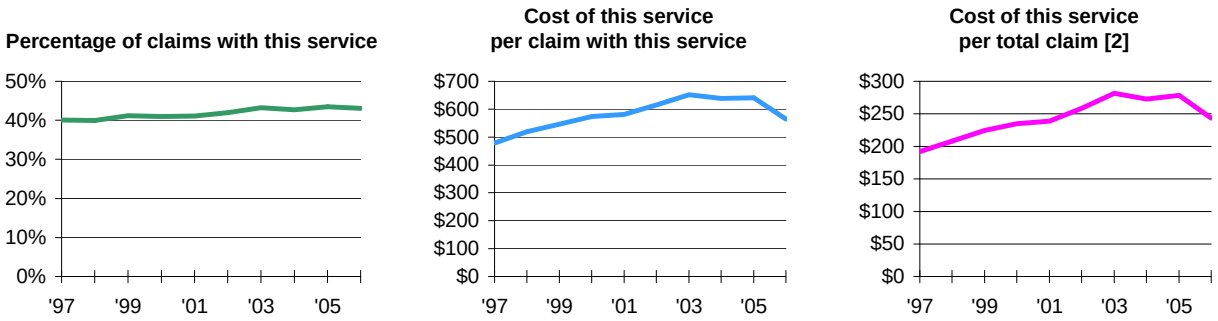
Inpatient hospital facility services (overnight room) [3]



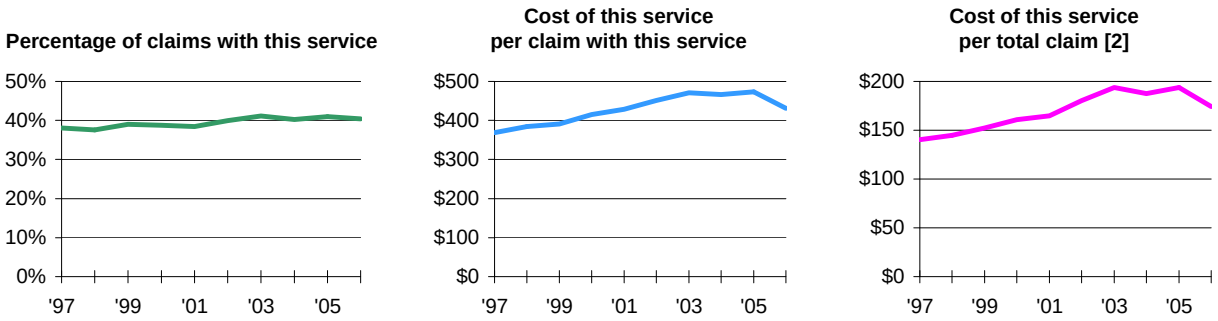
Inpatient hospital facility services (other)



Radiology (total)

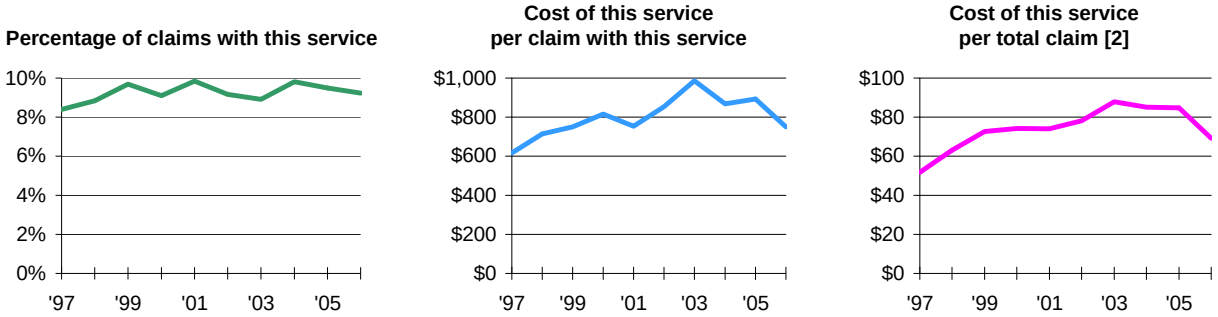


Radiology (providers subject to fee schedule)

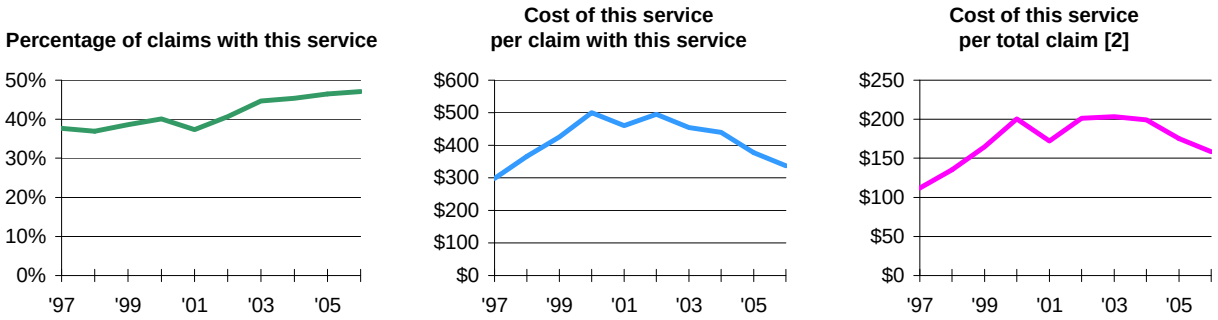


(Notes at end of figure.)

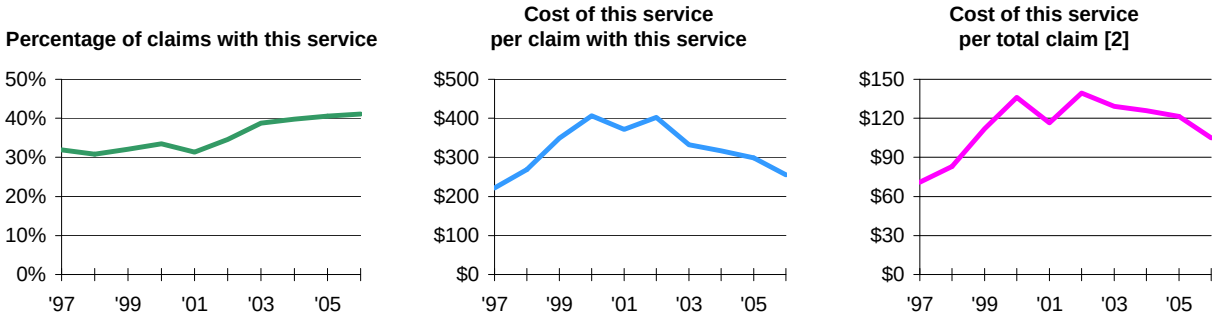
Radiology (providers not subject to fee schedule)



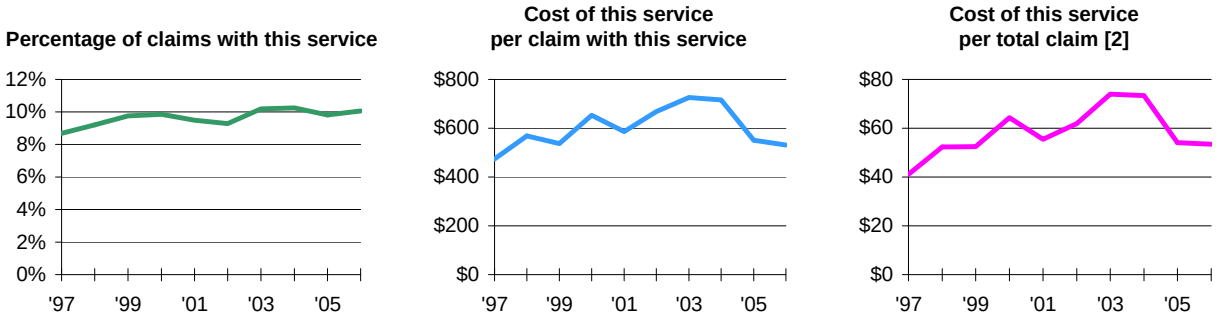
Drugs (total)



Drugs (providers subject to reimbursement formula) [4]

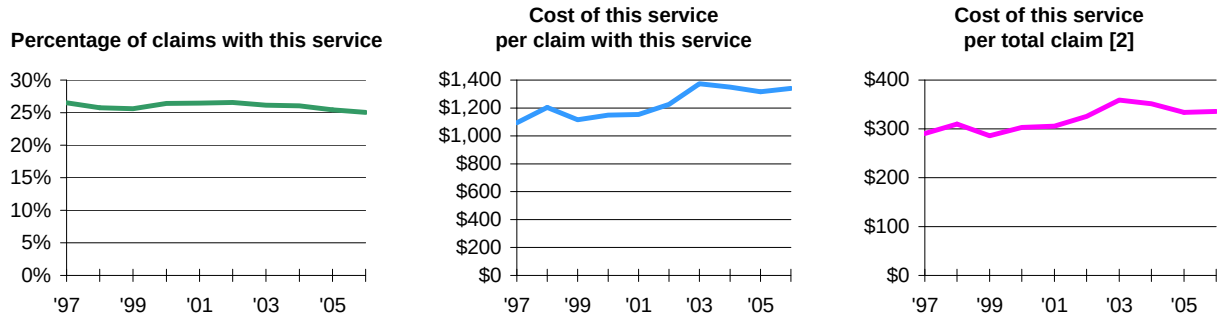


Drugs (providers not subject to reimbursement formula) [4]

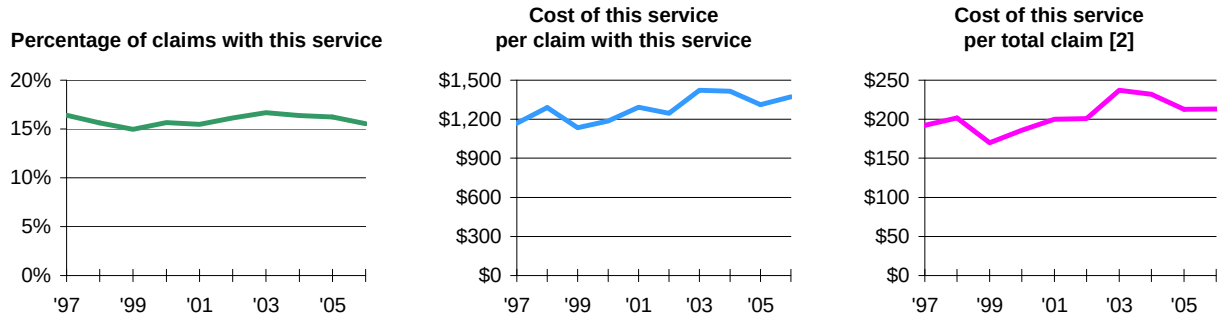


(Notes at end of figure.)

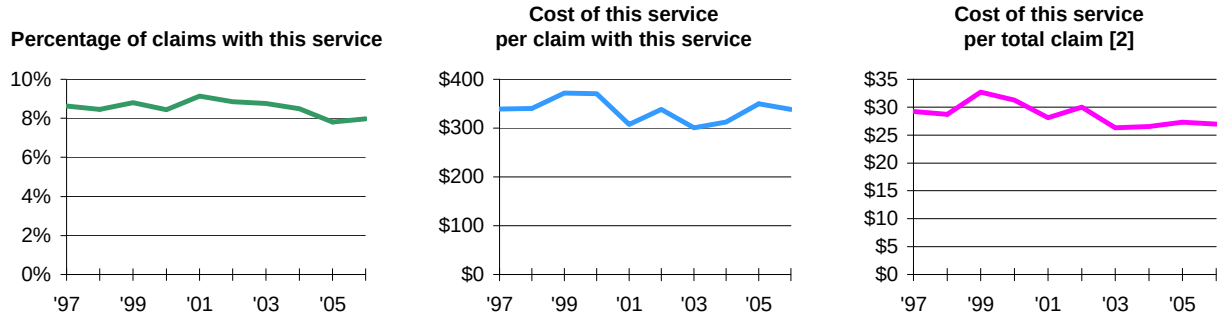
Physical medicine (total)



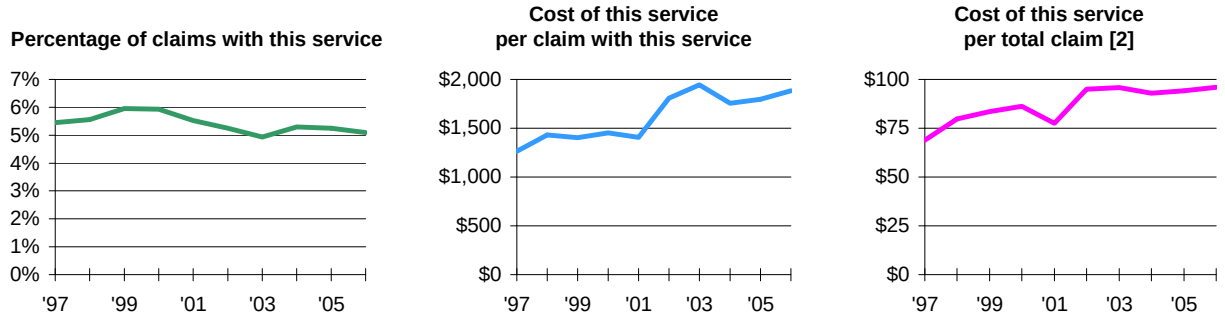
Physical medicine (providers subject to fee schedule — except chiropractors)



Physical medicine (providers subject to fee schedule — chiropractors)

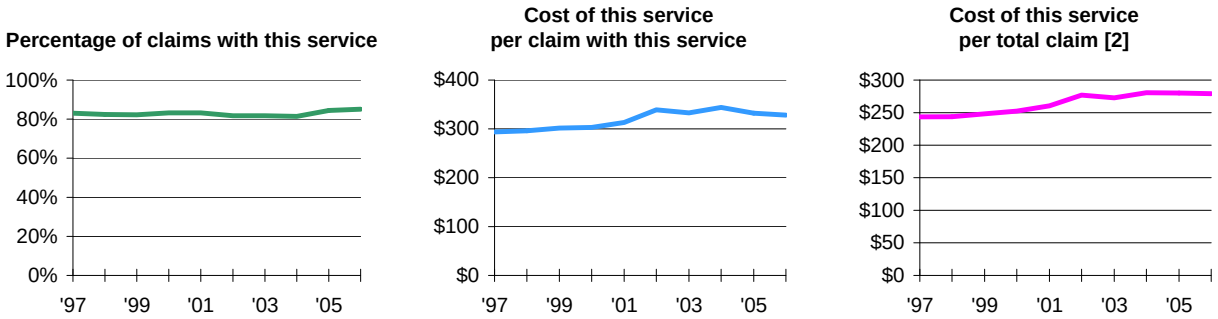


Physical medicine (providers not subject to fee schedule)

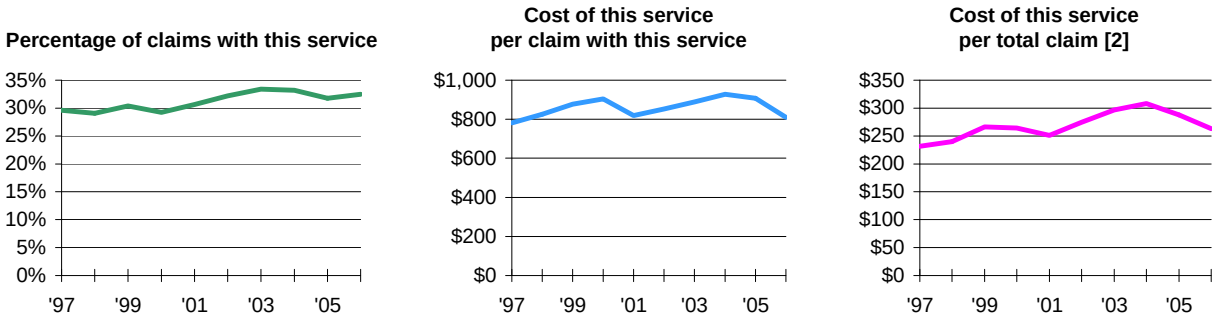


(Notes at end of figure.)

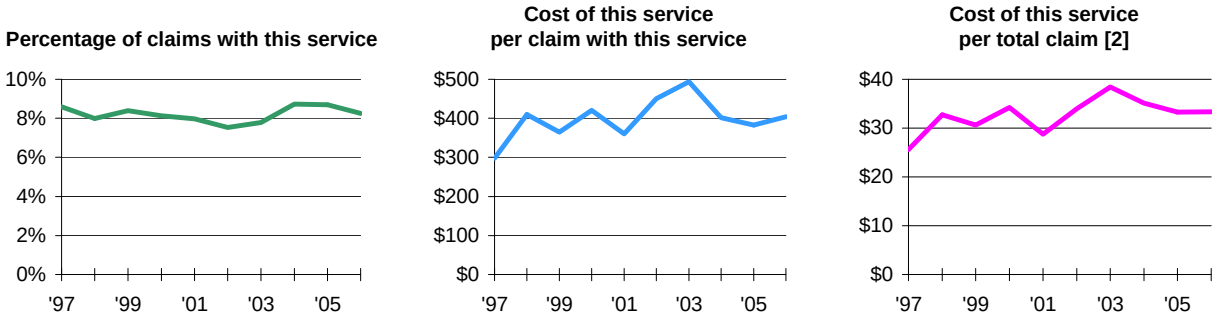
Evaluation and management (total) [5]



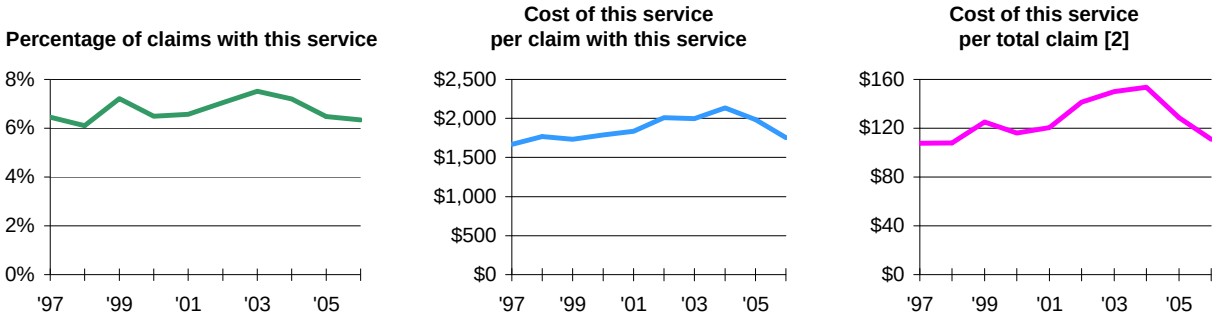
Surgery (total) [6]



Pathology and laboratory services



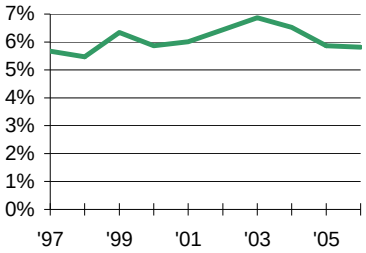
Anesthesia (total)



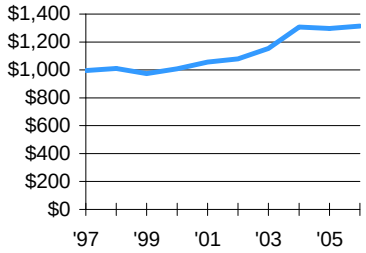
(Notes at end of figure.)

Anesthesia (nonfacility providers)

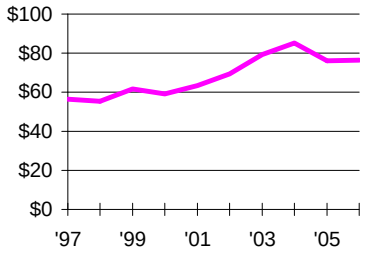
Percentage of claims with this service



Cost of this service per claim with this service

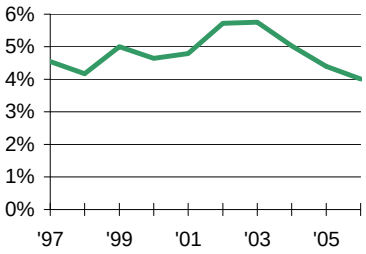


Cost of this service per total claim [2]

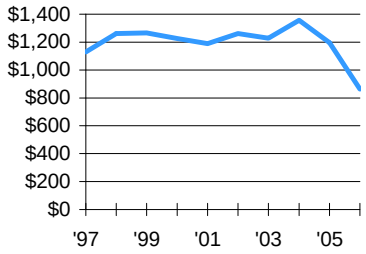


Anesthesia (facility providers)

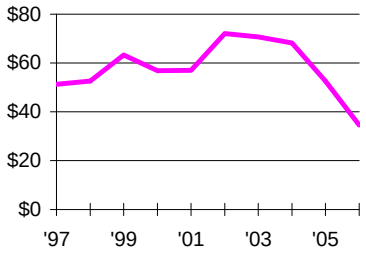
Percentage of claims with this service



Cost of this service per claim with this service

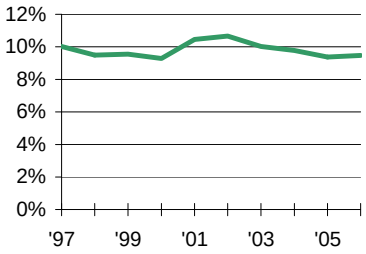


Cost of this service per total claim [2]

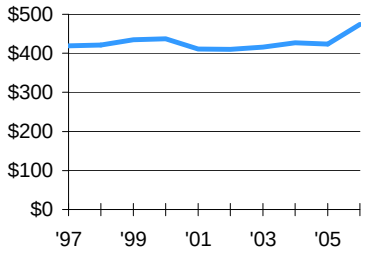


Chiropractic manipulations

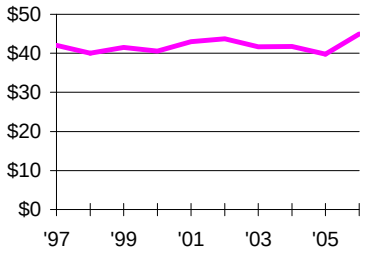
Percentage of claims with this service



Cost of this service per claim with this service

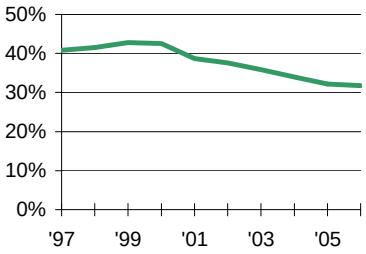


Cost of this service per total claim [2]

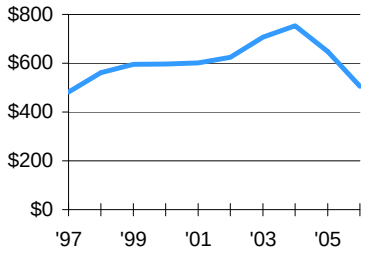


Equipment and supplies (total)

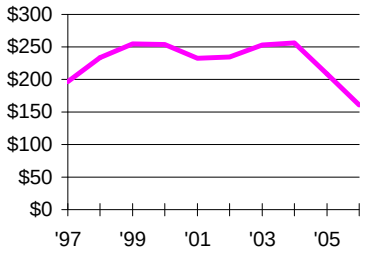
Percentage of claims with this service



Cost of this service per claim with this service



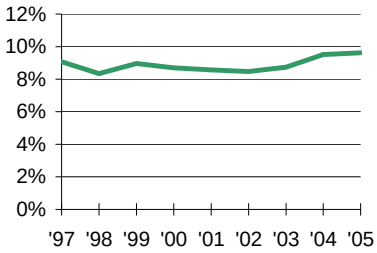
Cost of this service per total claim [2]



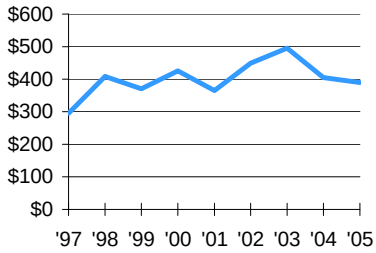
(Notes at end of figure.)

Pathology and laboratory services

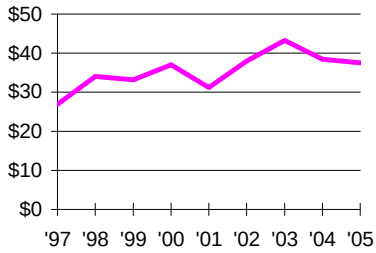
Percentage of claims with this service



Cost of this service per claim with this service

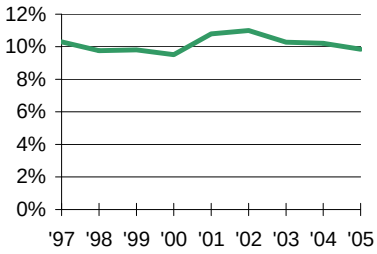


Cost of this service per total claim [2]

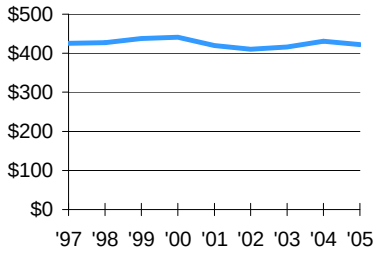


Chiropractic manipulations

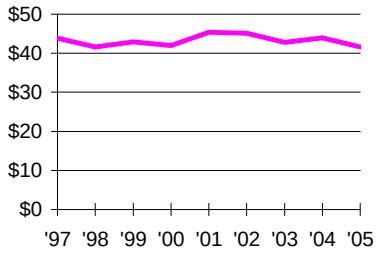
Percentage of claims with this service



Cost of this service per claim with this service

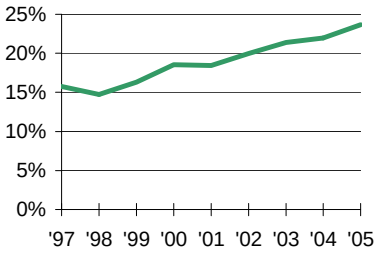


Cost of this service per total claim [2]

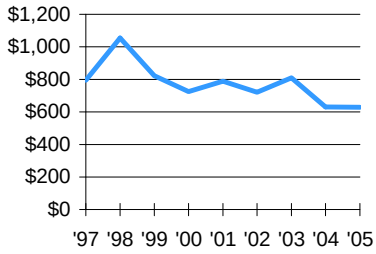


Other services

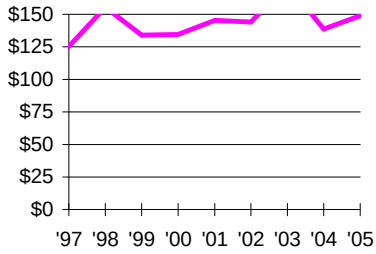
Percentage of claims with this service



Cost of this service per claim with this service

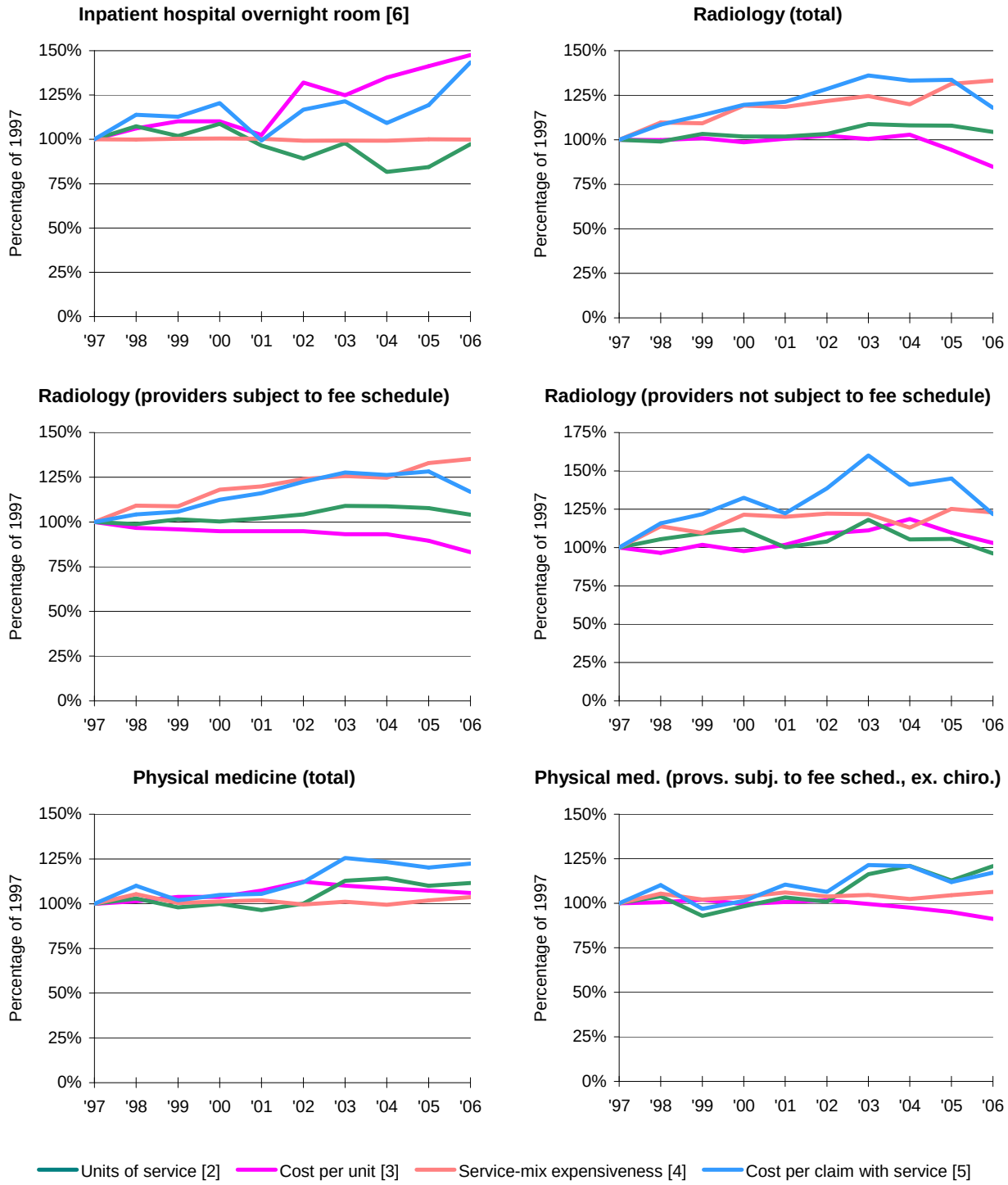


Cost of this service per total claim [2]

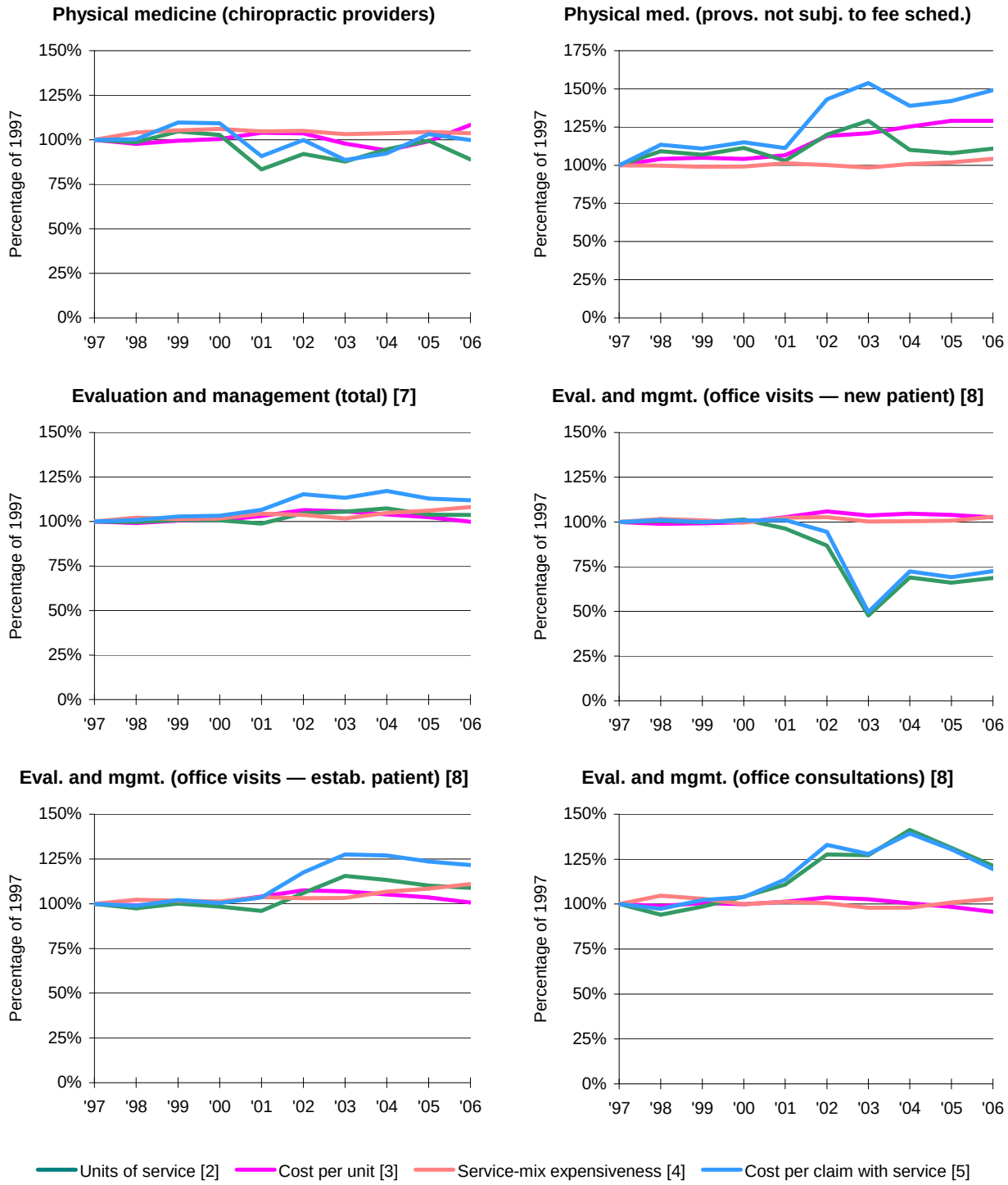


1. Developed statistics computed from data from a large insurer with fixed weights for gender, age and type of injury. Costs are adjusted for average wage growth between the respective year and 2005 (see Appendix C). Service categories are shown in the same order as in Figures 6.3 and 6.4. See Chapter 6 for explanation of service categories and provider groups.
2. Equal to the product of the first two trends for each service group.
3. See note 15 in text.
4. Provider groups are not shown for surgery because providers in this service group that were not subject to the fee schedule accounted for only 0.6 percent of total medical cost in 2005 (Figure 6.2).
5. Provider groups are not shown for evaluation and management because providers in this service group that were not subject to the fee schedule accounted for only 0.6 percent of total medical cost in 2005 (Figure 6.2).
6. Excludes intensive care unit.

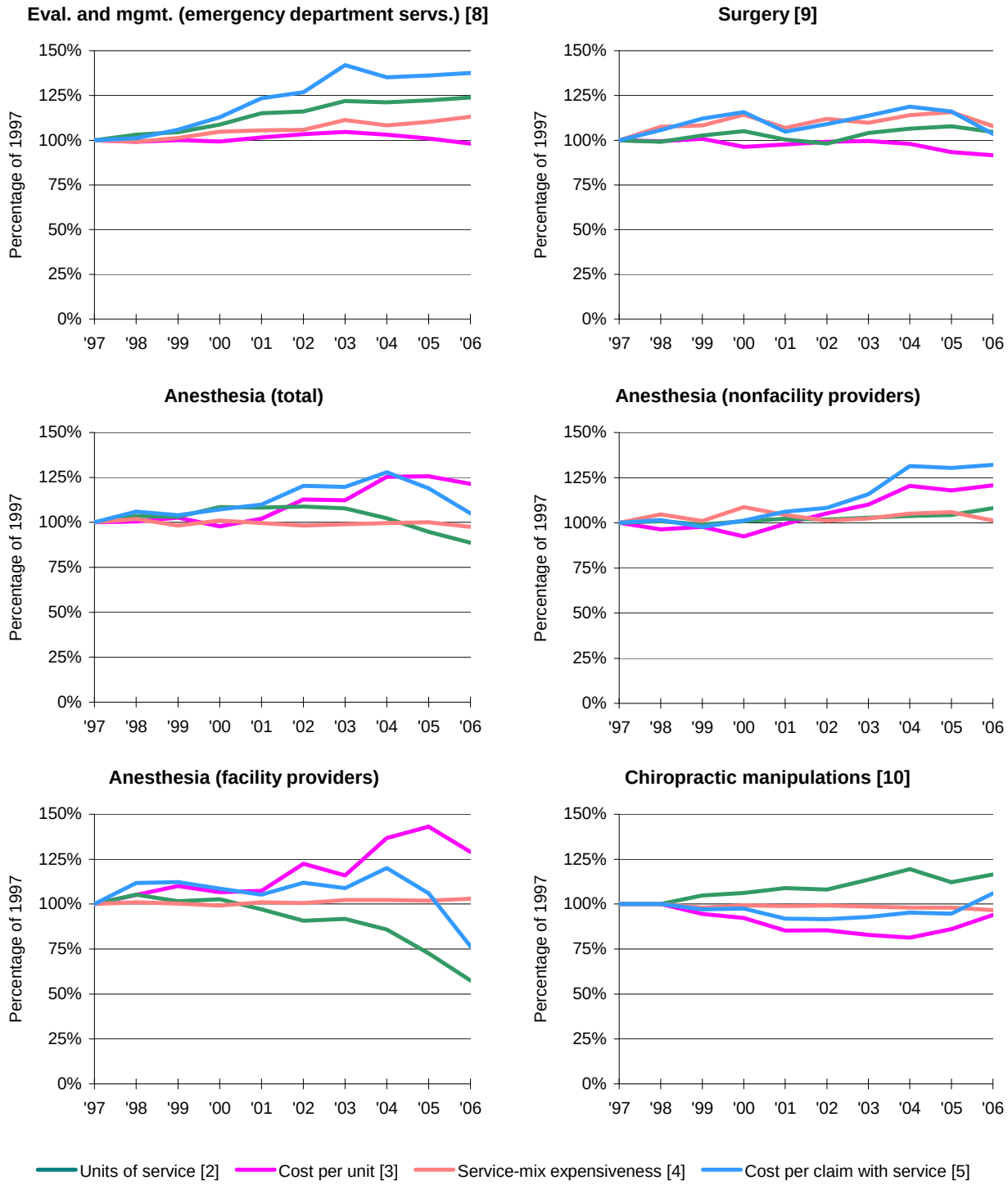
Figure 6.5A Quantity, unit-cost and service-mix indices, injury years 1997-2006 [1]



(Notes at end of figure.)



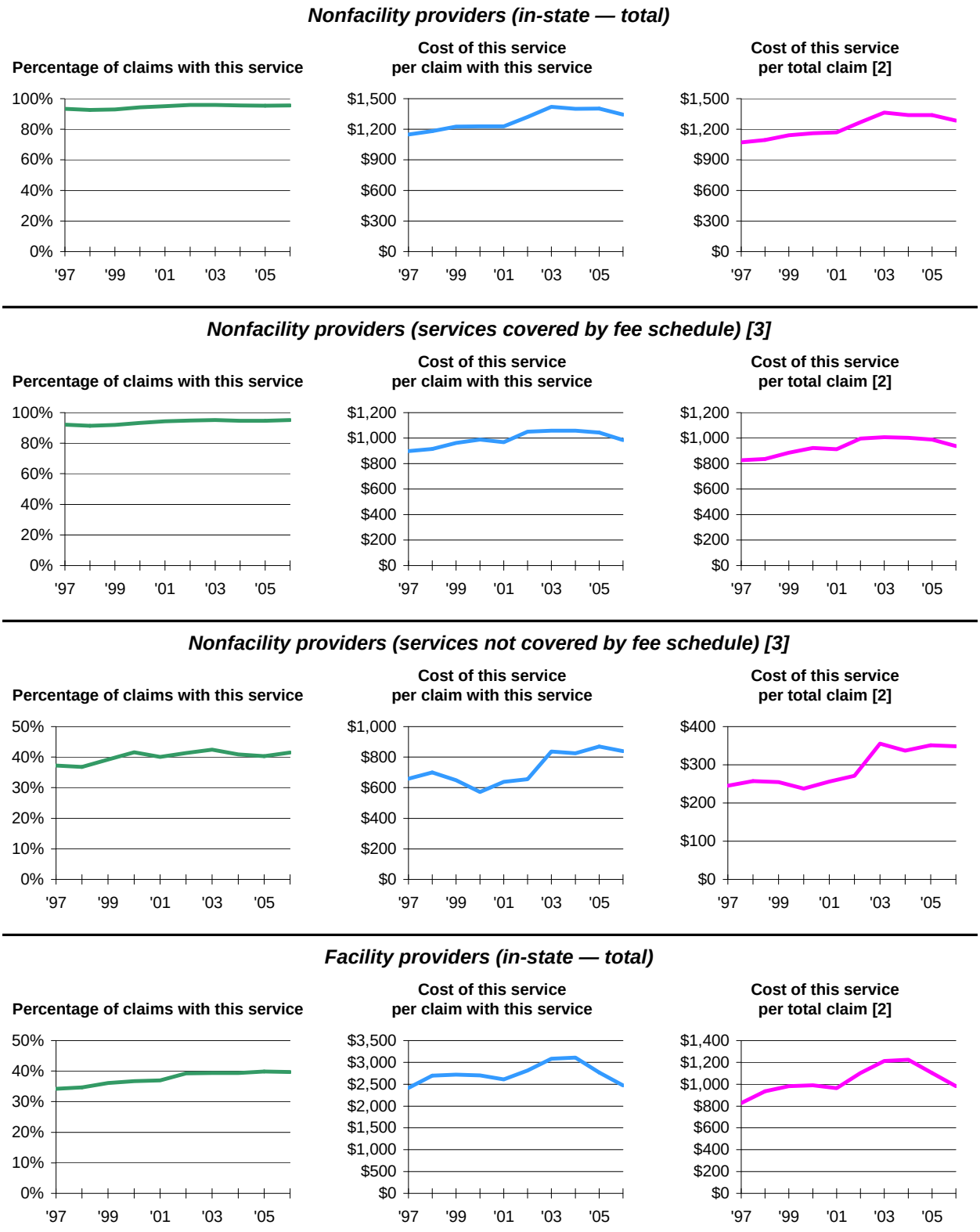
(Notes at end of figure.)



(Notes at end of figure.)

1. Developed statistics computed from data from a large insurer with fixed weights for gender, age and type of injury. Service groups are shown in the same order as in Figure 6.5. Only some service groups are represented because the service codes (for individual types of service within the group) do not allow the computation of these indices for all service groups (see Appendix C).
2. Units of service per claim with service.
3. Average cost per unit of service, holding constant the service mix within the service group. Adjusted for average wage growth (see Appendix C).
4. Average cost per unit of service as affected by changes in the service mix within the service group, holding constant the average costs of particular types of service (see Appendix C).
5. Cost of the service per claim with service, adjusted for average wage growth (see Appendix C). Equal to the product of the indices of units of service, cost per unit and service mix expensiveness. An approximation (when the percent changes are small) is that the percent change in the cost of the service per claim with the service is roughly equal to the sum of the percent changes in the three component indices.
6. Excludes intensive care unit. Service mix for this category pertains to the mix between private and semiprivate rooms.
7. Provider groups (providers subject and not subject to fee schedule) are not shown for evaluation and management because providers of this service group that were not subject to the fee schedule accounted for only 0.6 percent of total medical cost in 2006 (Figure 6.2).
8. For the four subgroups under evaluation and management, units of service and cost per claim with service are expressed relative to the number of claims with any evaluation and management services.
9. Provider groups (nonfacility and facility providers) are not shown for surgery because facility providers of this service group accounted for only 0.8 percent of total medical cost in 2006 (Figure 6.2).
10. The indices for chiropractic manipulations begin with 1998 because service-coding changes prevent comparisons with earlier years.

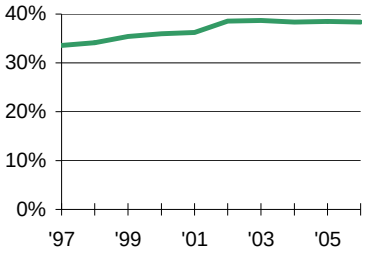
Figure 6.8A Components of medical cost per total claim by provider group, injury years 1997-2006 [1]



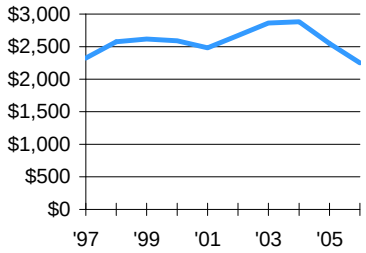
(Notes at end of figure.)

Hospitals (total)

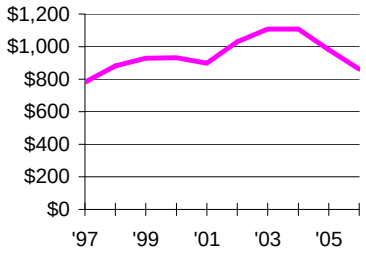
Percentage of claims with this service



Cost of this service per claim with this service

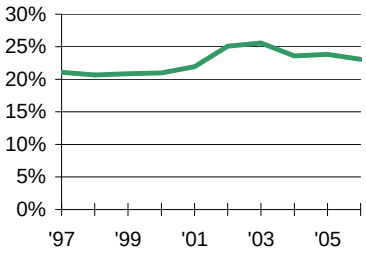


Cost of this service per total claim [2]

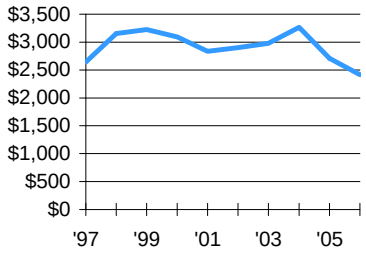


Large hospitals

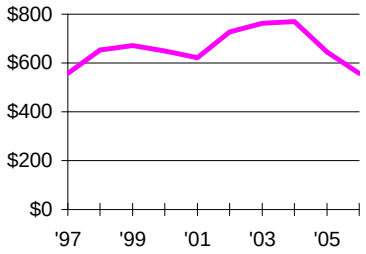
Percentage of claims with this service



Cost of this service per claim with this service

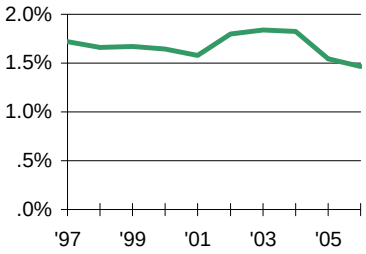


Cost of this service per total claim [2]

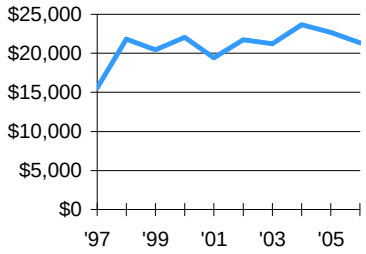


Large hospitals (inpatient services)

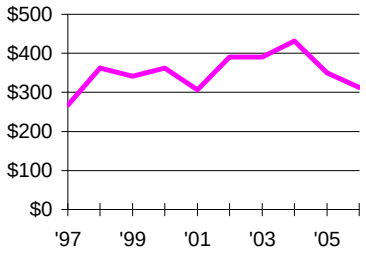
Percentage of claims with this service



Cost of this service per claim with this service

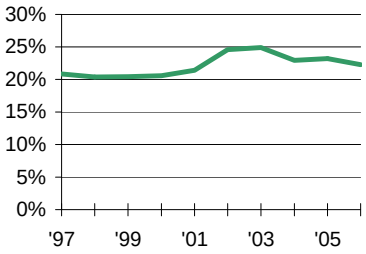


Cost of this service per total claim [2]

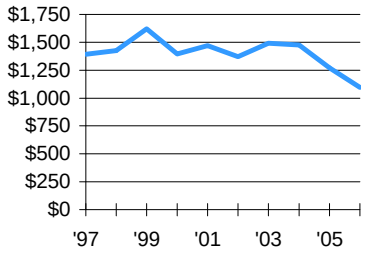


Large hospitals (outpatient services — total)

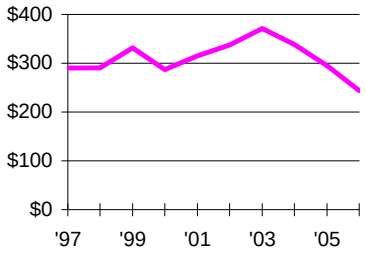
Percentage of claims with this service



Cost of this service per claim with this service

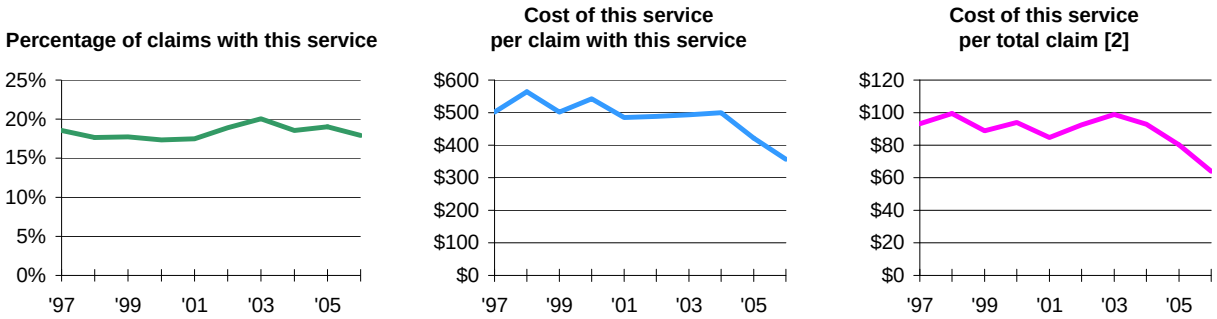


Cost of this service per total claim [2]

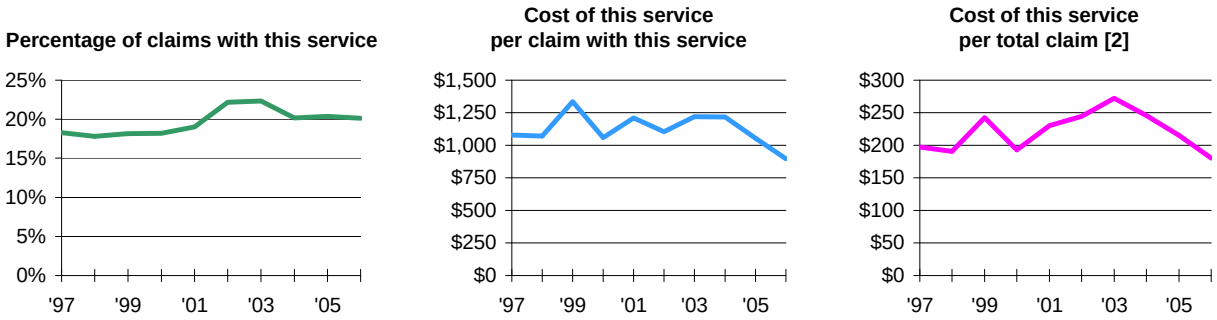


(Notes at end of figure.)

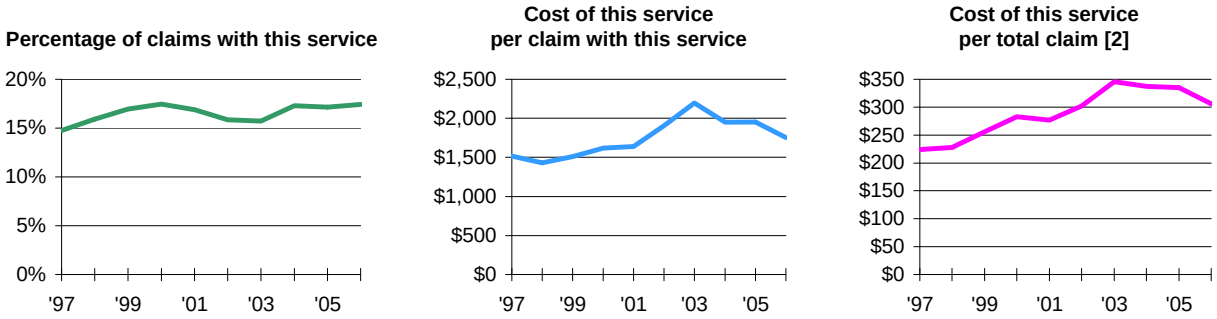
Large hospitals (outpatient services covered by fee schedule [3])



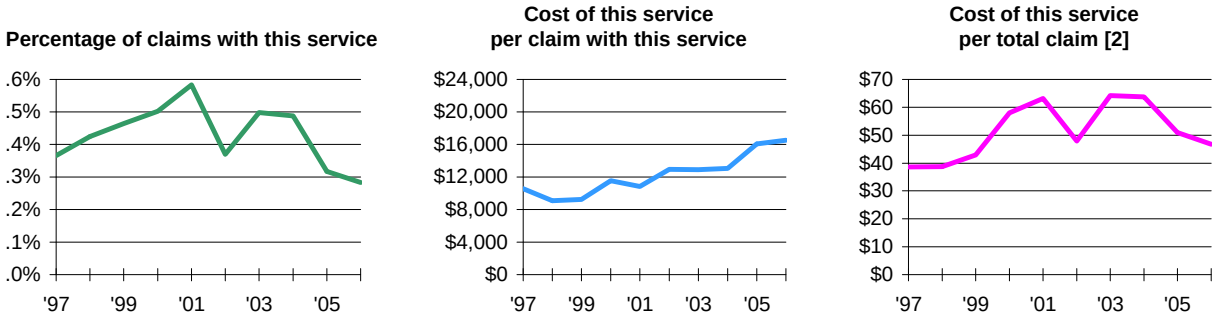
Large hospitals (outpatient services not covered by fee schedule [3])



Small hospitals



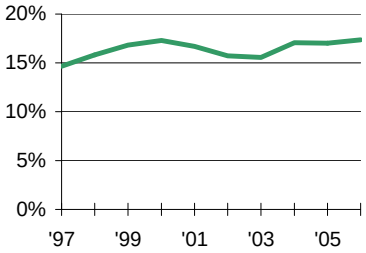
Small hospitals (inpatient services)



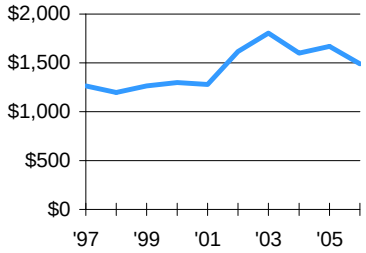
(Notes at end of figure.)

Small hospitals (outpatient services)

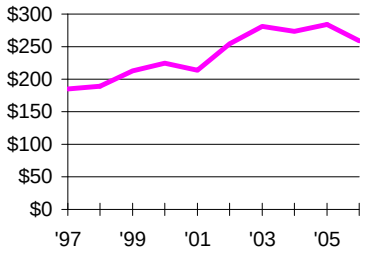
Percentage of claims with this service



Cost of this service per claim with this service

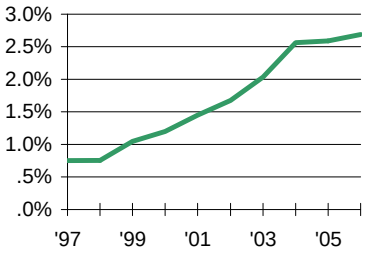


Cost of this service per total claim [2]

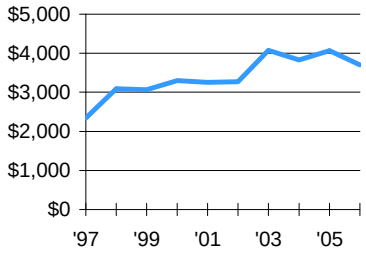


Ambulatory surgical centers

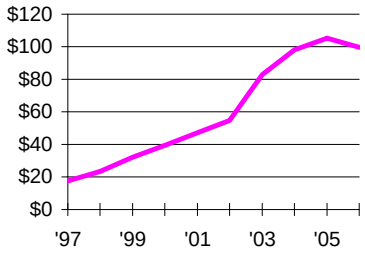
Percentage of claims with this service



Cost of this service per claim with this service

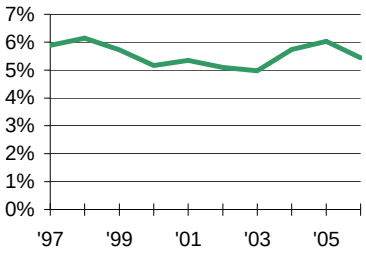


Cost of this service per total claim [2]

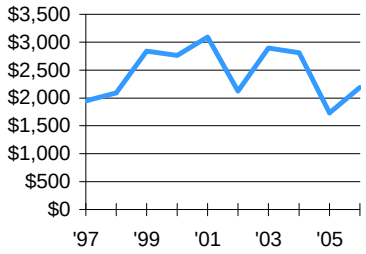


Out-of-state providers

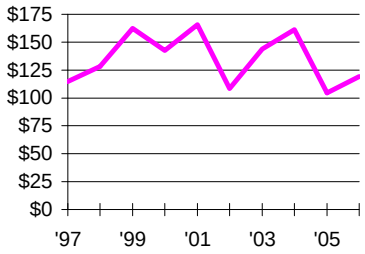
Percentage of claims with this service



Cost of this service per claim with this service

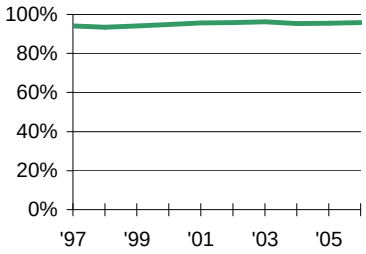


Cost of this service per total claim [2]

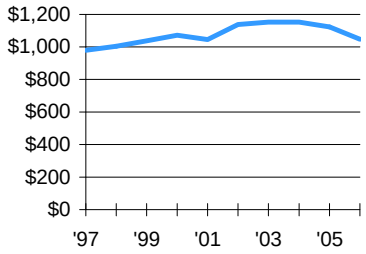


Total covered by fee schedule [3]

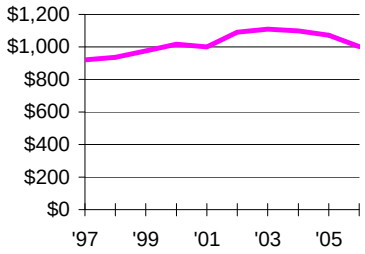
Percentage of claims with this service



Cost of this service per claim with this service



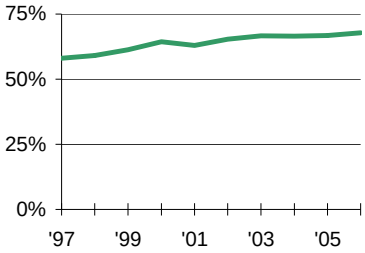
Cost of this service per total claim [2]



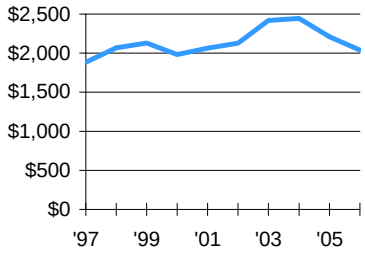
(Notes at end of figure.)

Total not covered by fee schedule [3]

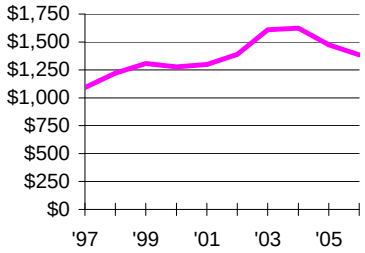
Percentage of claims with this service



Cost of this service per claim with this service



Cost of this service per total claim [2]



1. Developed statistics computed from data from a large insurer with fixed weights for gender, age and type of injury. Costs are adjusted for average wage growth between the respective year and 2006 (see Appendix C). Service categories are shown in the same order as in Figures 6.7 and 6.8. See Chapter 6 for explanation of service categories and provider groups.
2. Equal to the product of the first two trends for each provider group.
3. All drugs, including those covered by the pharmacy reimbursement formula, are counted as not covered by the fee schedule. That is, the "covered" category is limited to services with maximum fees determined by relative value units and a conversion factor.

Appendix A

Glossary

Accident year — The year in which the accident or condition occurred giving rise to the injury or illness. In accident year data, all claims and costs are tied to the year in which the accident occurred. Accident year, used with insurance data, is equivalent to injury year, used with Department of Labor and Industry data.

Administrative conference — An expedited, informal proceeding where parties present and discuss viewpoints in a dispute. If agreement is not achieved, a "decision and order" is issued which is binding unless a dispute party requests a formal hearing. Administrative conferences are conducted on medical issues presented on a *Medical Request,* vocational rehabilitation issues presented on a *Rehabilitation Request,* and on discontinuance disputes presented by a claimant's request for an administrative conference. Currently, medical conferences are conducted at the Department of Labor and Industry's Benefit Management and Resolution (BMR) unit if the disputed amount is $7,500 or less;[54] otherwise they are conducted at the Office of Administrative Hearings (OAH). However, BMR may refer a medical dispute of $7,500 or less to OAH if it involves surgery or highly complex issues or litigation is pending at OAH. Rehabilitation conferences are usually conducted at BMR, though sometimes at OAH. Discontinuance conferences are conducted at OAH.

Assigned Risk Plan (ARP) — Minnesota's workers' compensation insurer of last resort, which insures employers unable to insure themselves in the voluntary market. The ARP is necessary because all non-exempt employers are required to have workers' compensation insurance or self-insure. The Department of Commerce operates the ARP through contracts with private companies for administrative services. The Department of Commerce sets the ARP premium rates, which are different from the voluntary market rates.

Benefit Management and Resolution (BMR) — A unit in the Department of Labor and Industry that provides information and clarification about workers' compensation statutes, rules and procedures; carries out a variety of dispute-prevention activities; conducts informal dispute-resolution activities, including mediations; and holds administrative conferences about some issues. See "administrative conference."

Claim petition — A form by which the injured worker contests a denial of primary liability or requests an award of indemnity, medical or rehabilitation benefits. In response to a claim petition, the Office of Administrative Hearings generally schedules a settlement conference or formal hearing.

Cost-of-living adjustment — An annual adjustment of temporary total disability, temporary partial disability, permanent total disability or dependents' benefits computed from the annual change in the statewide average weekly wage (SAWW). The percent adjustment is equal to the proportion by which the SAWW in effect at the time of the adjustment differs from the SAWW in effect one year earlier, not to exceed a statutory limit. For injuries on or after Oct. 1, 1995, the cost-of-living adjustment is limited to 2 percent a year and delayed until the fourth anniversary of the injury.

Dependents' benefits — Benefits paid to dependents of a worker who has died from a work-related injury or illness. These benefits are equal to a percentage of the worker's gross pre-injury wage and are paid for a specified period of time, depending on the dependents concerned.

[54] See note 3.

Developed statistics — Estimates of what claim statistics (e.g., number of claims, average claim cost, dispute rate, vocational rehabilitation participation rate) will be at a given claim maturity. Developed statistics are relevant for accident year, policy year and injury year data. They are obtained by applying development factors, based on historical rates of development of the statistic in question, to tabulated numbers.

Development — The change over time in a claim statistic (e.g., number or cost of claims) for a particular accident year, policy year or injury year. The reported numbers develop both because of the time necessary for claims to mature and, in the case of Department of Labor and Industry data, because of reporting lags.

Discontinuance dispute — A dispute about the discontinuance of wage-loss benefits, most often initiated when the claimant requests an administrative conference (usually by phone) in response to the insurer's declared intention to discontinue temporary total or temporary partial benefits. The conference is conducted at the Office of Administrative Hearings (OAH). A discontinuance dispute may also be presented on the claimant's *Objection to Discontinuance* or the insurer's petition to discontinue benefits, either of which triggers a hearing at OAH.

Discontinuance of wage-loss benefits — The insurer may propose to discontinue wage-loss benefits (temporary total, temporary partial or permanent total disability) if it believes one of the legal conditions for discontinuance have been met. See "Notice of Intention to Discontinue," "Request for Administrative Conference," "Objection to Discontinuance" and "petition to discontinue benefits."

Dispute certification — A process required by statute in which, in a medical or rehabilitation dispute, the Department of Labor and Industry's Benefit Management and Resolution (BMR) unit must certify that a dispute exists and that informal intervention did not resolve the dispute before an attorney may charge for services. BMR specialists attempt to resolve the dispute informally during the certification process.

Experience modification factor — A factor computed by an insurer to modify an employer's premium on the basis of the employer's recent loss experience relative to the overall experience for all employers in the same payroll class. For statistical reliability reasons, the "mod" more closely reflects the employer's own experience for larger employers than for smaller employers.

Full-time-equivalent (FTE) covered employment — An estimate of the number of full-time employees who would work the same number of hours during a year as the actual workers' compensation covered employees, some of whom work part-time or overtime. It is used in computing workers' compensation claims incidence rates.

Hearing — A formal proceeding on a disputed issue or issues in a workers' compensation claim, conducted at the Office of Administrative Hearings (OAH), after which the judge issues a decision that is binding unless appealed. OAH conducts formal hearings on disputes presented on claim petitions and other petitions where resolution through a settlement conference is not possible. OAH also conducts hearings on some discontinuance disputes (those where there is an *Objection to Discontinuance* or a petition to discontinue benefits), disputes referred by the Department of Labor and Industry's Benefit Management and Resolution (BMR) unit because they do not seem amenable to less formal resolution, and disputes about miscellaneous issues such as attorney fees. Finally, OAH conducts hearings *de novo* when a party disagrees with an administrative-conference or nonconference decision and order from either BMR or OAH.

Indemnity benefit — A benefit to the injured or ill worker or survivors to compensate for wage loss, functional impairment or death. Indemnity benefits include temporary total disability, temporary partial disability, permanent partial disability and permanent total disability benefits; supplementary benefits; dependents' benefits; and, in insurance industry accounting, vocational rehabilitation benefits.

Indemnity claim — A claim with paid indemnity benefits. Most indemnity claims involve more than three days of total or partial disability, since this is the threshold for qualifying for temporary total or temporary partial disability benefits, which are paid on most of these claims. Indemnity claims typically include medical costs in addition to indemnity costs.

Injury year — The year in which the injury occurred or the illness began. In injury year data, all claims, costs and other statistics are tied to the year in which the injury occurred. Injury year, used with Department of Labor and Industry data, is essentially equivalent to accident year, used with insurance data.

Intervention — An instance in which the Department of Labor and Industry's Benefit Management and Resolution unit provides information or assistance to prevent a potential dispute, or communicates with the parties to resolve a dispute and/or determine whether a dispute should be certified. A dispute resolution through intervention may occur either during or after the dispute certification process. (This is different from the intervention process in which an interested person or entity not originally involved in the dispute becomes a party to the dispute.)

Mediation — A voluntary, informal proceeding conducted by the Department of Labor and Industry's Benefit Management and Resolution unit to facilitate agreement among the parties in a dispute. If agreement is reached, its terms are formally recorded. A mediation occurs when one party requests it and the others agree to participate. This often takes place after attempts at resolution by phone and correspondence have failed.

Medical cost — The cost of medical services and supplies provided to the injured or ill worker, including payments to providers and certain reimbursements to the worker. Workers' compensation covers all reasonable and necessary medical costs related to the injury or illness, subject to a maximum-fee schedule.

Medical-only claim — A claim with paid medical costs and no indemnity benefits.

Medical dispute — A dispute about a medical issue, such as choice of providers, nature and timing of treatments or appropriate payments to providers.

Medical Request — A form by which a party to a medical dispute requests assistance from (te Department of Labor and Industry (DLI) in resolving the dispute. The request may lead to mediation or other efforts toward informal resolution by DLI's Benefit Management and Resolution (BMR) unit or to an administrative conference at BMR or the Office of Administrative Hearings (see administrative conference).

Minnesota Workers' Compensation Insurers Association (MWCIA) — Minnesota's workers' compensation data service organization (DSO). State law specifies the duties of the DSO and the Department of Commerce designates the entity to be the DSO. Among other activities, the MWCIA collects data about claims, premium and losses from insurers, and annually produces pure premium rates.

Nonconference decision and order — A decision issued by The Department of Labor and Industry's Benefit Management and Resolution unit, without an administrative conference, in a dispute for which it has administrative conference authority (see "administrative conference"), when it has sufficient information without conducting a conference. The decision is binding unless a dispute party requests a formal hearing.

Notice of Intention to Discontinue (NOID) — A form by which the insurer informs the worker of its intention to discontinue temporary total disability or temporary partial disability benefits. In contrast with a petition to discontinue benefits, the NOID brings about benefit termination if the worker does not contest it.

Objection to Discontinuance — A form by which the injured worker requests a formal hearing to contest a discontinuance of wage-loss benefits (temporary total, temporary partial or permanent total disability) proposed by the insurer by means of a *Notice of Intention to Discontinue* or a petition to discontinue benefits. The hearing is conducted at the Office of Administrative Hearings.

Office of Administrative Hearings (OAH) — An executive branch body that conducts hearings in administrative law cases. One section is responsible for workers' compensation cases; it conducts administrative conferences, settlement conferences and hearings.

Permanent partial disability (PPD) — A benefit that compensates for permanent functional impairment resulting from a work-related injury or illness. The benefit is based on the worker's

impairment rating, which is a percentage of whole-body impairment determined on the basis of health care providers' assessments according to a rating schedule in rules. The PPD benefit is calculated under a schedule specified in law, which assigns a benefit amount per rating point with higher ratings receiving proportionately higher benefits. The scheduled amounts per rating point were fixed for injuries from 1984 through September 2000, but were raised in the 2000 law change for injuries on or after Oct. 1, 2000. The PPD benefit is paid after temporary total disability (TTD) benefits have ended. For injuries from October 1995 through September 2000, it is paid at the same rate and intervals as TTD until the overall amount is exhausted. For injuries on or after Oct. 1, 2000, the PPD benefit may be paid as a lump sum, computed with a discount rate not to exceed 5 percent.

Permanent total disability (PTD) — A wage-replacement benefit paid if the worker sustains a severe work-related injury specified in law. Also paid if the worker, because of a work-related injury or illness in combination with other factors, is permanently unable to secure gainful employment, provided that, for injuries on or after Oct. 1, 1995, the worker has a PPD rating of at least 13 to 17 percent, depending on age and education. The benefit is equal to two-thirds of the worker's gross pre-injury wage, subject to minimum and maximum weekly amounts, and is paid at the same intervals as wages were paid before the injury. For injuries on or after Oct. 1, 1995, benefits end at age 67 under a rebuttable presumption of retirement. Also for injuries on or after Oct. 1, 1995, weekly benefits are subject to a minimum of 65 percent of the SAWW. The maximum weekly benefit amount is indicated in Appendix B. Cost-of-living adjustments are described in this appendix.

Petition to discontinue benefits — A document by which the insurer requests a formal hearing to allow a discontinuance of wage-loss benefits (temporary total disability (TTD), temporary partial disability (TPD) or permanent total disability (PTD)). The hearing is conducted at the Office of Administrative Hearings for TTD or TPD benefits or at the Workers' Compensation Court of Appeals for PTD benefits.

Policy year — The year of initiation of the insurance policy covering the accident or condition that caused the injury or illness. In policy year data, all claims and costs are tied to the year in which the applicable policy took effect. Since policy periods often include portions of two calendar years, the data for a policy year includes claims and costs for injuries occurring in two different calendar years.

Primary liability — The overall liability of the insurer for any costs associated with a claim once the injury is determined to be compensable. An insurer may deny primary liability (deny that the injury is compensable) if it has reason to believe the injury did not arise out of and in the course of employment or is not covered under Minnesota's workers' compensation law.

Pure premium — A measure of expected losses, equal to the sum, over all insurance classes, of payroll times the class-specific pure premium rates, adjusted for individual employers' prior loss experience. It is different from (and somewhat lower than) the actual premium charged to employers, because actual premium includes other insurance company costs plus taxes and assessments.

Pure premium rates — Rates of expected indemnity and medical losses a year per $100 of covered payroll, also referred to as "loss costs." Pure premium rates are determined annually by the Minnesota Workers' Compensation Insurers Association for approximately 560 insurance classes in the voluntary market. They are based on insurer "experience" and statutory benefit changes. "Experience" refers to actual losses relative to pure premium for the most recent report periods. The pure premium rates are published with documentation in the annual *Minnesota Ratemaking Report* subject to approval by the Department of Commerce.

Rehabilitation Request — A form by which a party to a vocational rehabilitation dispute requests assistance from DLI in resolving the dispute. The request may lead to mediation or other efforts toward informal resolution by The Department of Labor and Industry's Benefit Management and Resolution (BMR) unit or to an administrative conference, usually at BMR but occasionally at the Office of Administrative Hearings.

Request for Administrative Conference — A form by which the injured worker requests an

administrative conference to contest a discontinuance of wage-loss benefits (temporary total, temporary partial or permanent total disability) proposed by the insurer on the *Notice of Intention to Discontinue.* Requests for a discontinuance conference are usually done by phone.

Reserves — Funds that an insurer or self-insurer sets aside to pay expected future claim costs.

Second-injury claim — A claim for which the insurer (or self-insured employer) is entitled to reimbursement from the Special Compensation Fund because the injury was a subsequent (or "second") injury for the worker concerned. The 1992 law eliminated reimbursement (to insurers) of second-injury claims for subsequent injuries occurring on or after July 1, 1992.

Self-insurance — A mode of workers' compensation insurance in which an employer or employer group insures itself or its members. To do so, the employer or employer group must meet financial requirements and be approved by the Department of Commerce.

Settlement conference — A proceeding at the Office of Administrative Hearings to resolve issues when it appears possible to do so without a formal hearing. If a settlement is reached, it typically includes an agreement by the claimant to release the employer and insurer from future liability for the claim other than for medical treatment.

Special Compensation Fund (SCF) — A fund within the Department of Labor and Industry (DLI) that, among other things, pays uninsured claims and reimburses insurers (including self-insured employers) for supplementary and second-injury benefit payments. (The supplementary benefit and second-injury provisions only apply to older claims, because they were eliminated by the law changes of 1995 and 1992, respectively.) Revenues come primarily from an assessment on insurers and self-insured employers. The SCF also funds the operations of DLI, the workers' compensation portion of the Office of Administrative Hearings, the Workers' Compensation Court of Appeals and workers' compensation functions in the Department of Commerce.

Statewide average weekly wage (SAWW) — The average wage used by insurers and the Department of Labor and Industry to adjust certain workers' compensation benefits. This report uses the SAWW to adjust average benefit amounts for different years so they are all expressed in constant (2006) wage dollars. The SAWW, from the Department of Employment and Economic Development, is the average weekly wage of nonfederal workers covered under unemployment insurance.

Stipulated benefits — Indemnity and medical benefits specified in a "stipulation for settlement," which states the terms of settlement of a claim among the affected parties. A stipulation usually occurs in the context of a dispute, but not always. The stipulation may be incorporated into a mediation agreement, or may be reached in a settlement conference or associated preparatory activities, in which case it must be approved by a workers' compensation judge. Stipulated benefits are usually paid in a lump sum.

Supplementary benefits — Additional benefits paid to certain workers receiving temporary total disability (TTD) or permanent total disability (PTD) benefits for injuries prior to October 1995. These benefits are equal to the difference between 65 percent of the statewide average weekly wage and the TTD or PTD benefit. The Special Compensation Fund reimburses insurers (and self-insured employers) for supplementary benefit payments. Supplementary benefits were repealed for injuries on or after Oct. 1, 1995.

Temporary partial disability (TPD) — A wage-replacement benefit paid if the worker is employed with earnings that are reduced because of a work-related injury or illness. (The benefit is not payable for the first three calendar days of total or partial disability unless the disability lasts, continuously or intermittently, for at least 10 days.) The benefit is equal to two-thirds of the difference between the worker's gross pre-injury wage and his or her gross current wage, subject to a maximum weekly amount, and is paid at the same intervals as wages were paid before the injury. For injuries on or after Oct. 1, 1992, TPD benefits are limited to a total of 225 weeks and to the first 450 weeks after the injury (with an exception for approved retraining). The maximum weekly benefit amount is indicated in Appendix B. An

additional limit is that the weekly TPD benefit plus the employee's weekly wage earned while receiving TPD benefits may not exceed 500 percent of the SAWW. Cost-of-living adjustments are described in this appendix.

Temporary total disability (TTD) — A wage-replacement benefit paid if the worker is unable to work because of a work-related injury or illness. (The benefit is not payable for the first three calendar days of total or partial disability unless the disability lasts, continuously or intermittently, for at least 10 days.) The benefit is equal to two thirds of the worker's gross pre-injury wage, subject to minimum and maximum weekly amounts, and is paid at the same intervals as wages were paid before the injury. Currently, TTD stops if the employee returns to work; the employee withdraws from the labor market; the employee fails to diligently search for work within his or her physical restrictions; the employee is released to work without physical restrictions from the injury; the employee refuses an appropriate offer of employment; 90 days have passed after the employee has reached maximum medical improvement or completed an approved retraining plan; the employee fails to cooperate with an approved vocational rehabilitation plan or with certain procedures in the development of such a plan; or 104 weeks of TTD have been paid (with an exception for approved retraining). Minimum and maximum weekly benefit provisions are described in Appendix B. Cost-of-living adjustments are described in this appendix.

Vocational rehabilitation (VR) dispute — A dispute about a VR issue, such as whether the employee should be evaluated for VR eligibility, whether he or she is eligible, whether certain VR plan provisions are appropriate or whether the employee is cooperating with the plan.

Vocational rehabilitation plan — A plan for vocational rehabilitation services developed by a qualified rehabilitation consultant (QRC) in consultation with the employee and the employer and/or insurer. The plan is developed after the QRC determines the injured worker to be eligible for rehabilitation services, and is filed with the Department of Labor and Industry and provided to the affected parties. The plan indicates the vocational goal, the services necessary to achieve the goal and their expected duration and cost.

Voluntary market — The workers' compensation insurance market associated with policies issued voluntarily by insurers. Insurers may choose whether to insure a particular employer. See "Assigned Risk Plan."

Workers' Compensation Court of Appeals (WCCA) — An executive branch body that hears appeals of workers' compensation decisions from the Office of Administrative Hearings. WCCA decisions may be appealed to the Minnesota Supreme Court.

Workers' Compensation Reinsurance Association (WCRA) — A nonprofit entity created by law to provide reinsurance to workers' compensation insurers (including self-insurers) in Minnesota. Every workers' compensation insurer must purchase "excess of loss" reinsurance (reinsurance for losses above a specified limit per event) from the WCRA. Insurers may obtain other forms of reinsurance (such as aggregate coverage for total losses above a specified amount) through other means.

Written premium — The entire "bottom-line" premium for insurance policies initiated in a given year, regardless of when the premium comes due and is paid. Written premium is "bottom-line" in that it reflects all premium modifications in the pricing of the policies.

Appendix B

2000 workers' compensation law change

This appendix summarizes those components of the 2000 workers' compensation law change relevant to trends presented in this report.

The following provisions took effect for injuries on or after Oct. 1, 2000:

Temporary total disability (TTD) minimum benefit — The minimum weekly TTD benefit was raised from $104 to $130, not to exceed the employee's pre-injury wage.

Temporary total disability (TTD), temporary partial disability (TPD) and permanent total disability (PTD) maximum benefit — The maximum weekly TTD, TPD and PTD benefit was raised from $615 to $750.

Permanent partial disability (PPD) benefits — Benefit amounts were raised for all impairment ratings. In addition, the PPD award may be paid as a lump sum, computed with a discount rate not to exceed five percent. Previously, PPD benefits were only payable in installments at the same interval and amount as the employee's temporary total disability (TTD) benefits.

Death cases — A $60,000 minimum total benefit was established for dependency benefits. In death cases with no dependents, a $60,000 payment to the estate of the deceased was established and the $25,000 payment to the Special Compensation Fund was eliminated. The burial allowance was increased from $7,500 to $15,000.

Appendix C

Data sources and estimation procedures

This appendix describes data sources and estimation procedures for those figures where additional detail is needed. Two general procedures are used throughout the report — "development" of statistics to incorporate the effects of claim maturation beyond the most current data and adjustment of benefit and cost data for wage growth to achieve comparability over time. After a general description of these procedures, additional detail for individual figures is provided as necessary. See Appendix A for definitions of terms.

Developed statistics — Many statistics in this report are by accident year or policy year (insurance data) or by injury year (Department of Labor and Industry (DLI) data) (see Appendix A for definitions). For any given accident, policy or injury year, these statistics grow, or "develop," over time because of claim maturation and reporting lags. This affects a range of statistics, including claims, costs, dispute rates, attorney fees and others. Statistics from the DLI database develop constantly as the data is updated from insurer reports received daily. With the insurance data, insurers submit annual reports to the Minnesota Workers' Compensation Insurers Association (MWCIA) giving updates about prior accident and policy years along with initial data about the most recent year. If the DLI and insurance statistics were reported without adjustment, time series data would give invalid comparisons, because the statistics would be progressively less mature from one year to the next.

The MWCIA uses a standard insurance industry technique to produce "developed statistics." In this technique, the reported numbers are adjusted to reflect expected development between the current report and future reports. The adjustment uses "development factors" derived from historical rates of growth (from one report to the next) in the statistic in question. The result is a series of statistics developed to a constant maturity, e.g., to a "fifth-report" or "eighth-report" basis. The developed insurance statistics in this report are computed by the DLI Policy Development, Research and Statistics (PDRS) unit using tabulated numbers and associated development factors from the MWCIA.

PDRS has adapted this technique to DLI data. It tabulates statistics at regular intervals from the DLI database, computes development factors representing historical development for given injury years and then derives developed statistics by applying the development factors to the most recent tabulated statistics. In this manner, the annual numbers in any given time series are developed to a constant maturity, e.g., a 23-year maturity for the claim and cost statistics in Chapters 2 and 3 because the DLI database extends back to injury year 1983 for claim and cost data. An example: In Figure 2.1, the developed number of indemnity claims for injury year 2006 (in the numerator of the indemnity claim rate) is 25,800 (rounded to the nearest hundred). This is equal to the tabulated number as of Oct. 1, 2007, 23,098, times the appropriate development factor, 1.1160.

All developed statistics are estimates, and are, therefore, revised each year in light of the most current data.

Adjustment of cost data for wage growth — For reasons explained in Chapter 1, all costs in this report (except those expressed relative to payroll) are adjusted for average wage growth. The cost number for each year is multiplied by the ratio of the 2006 statewide average weekly wage (SAWW) to the SAWW for that year, using the SAWW reflecting wages paid during the respective year. Thus, the numbers for all

years represent costs expressed in 2006 wage-dollars.

Figure 2.1 — The developed number of paid indemnity claims for each year is calculated from the DLI database. The annual number of medical-only claims is estimated by applying the ratio of medical-only to indemnity claims for insured employers to the total number of indemnity claims. (The ratio is unavailable for self-insured employers.) The MWCIA, through special tabulations, provides this ratio by injury year for compatibility with the injury-year indemnity claims numbers.

The number of full-time-equivalent (FTE) workers covered by workers' compensation is estimated as total nonfederal unemployment insurance (UI) covered employment from the Department of Employment and Economic Development (DEED) times average annual hours per employee (from the annual Survey of Occupational Injuries and Illnesses, conducted jointly by the U.S. Bureau of Labor Statistics and state labor departments) divided by 2,000 (annual hours per full-time worker). Nonfederal UI-covered employment is used because there is no data about workers'-compensation-covered employment.

Figure 2.2 — For insured employers, total cost is computed as written premium adjusted for deductible credits, minus paid policy dividends. Written premium and paid dividends for the voluntary market are obtained from the Department of Commerce. Written premium for the Assigned Risk Plan (ARP) is obtained from the Park Glen National Insurance Company, the plan administrator. (There are no policy dividends in the ARP.)

Written premium is adjusted upward by the amount of premium credits granted with respect to policy deductibles, to reflect that portion of cost for insured employers that falls below deductible limits. Deductible credit data through policy year 2005 is available from the MWCIA. The 2006 figure was estimated by applying the ratio of deductible credits to written premium for 2005 to the 2006 premium figure. When the actual amount becomes available for 2006, that year's total cost figure will be revised.

For self-insured employers, the primary component of estimated total cost is pure premium from the Minnesota Workers' Compensation Reinsurance Association (WCRA). A second component is administrative cost, estimated as 10 percent of pure premium. The final component is the total assessment paid to the Special Compensation Fund (SCF), net of the portion used to pay claims from defaulted self-insurers, since this is already reflected in pure premium.

Total workers' compensation covered payroll is computed as the sum of insured payroll, from the MWCIA, and self-insured payroll, from the WCRA. Insured payroll was not yet available for 2006. This figure was extrapolated from actual figures using the trend in nonfederal UI-covered payroll (from DEED) and the trend in the relative insured and self-insured shares of total pure premium (from the WCRA).

Figure 2.3 — Market-share percentages are taken from undeveloped counts of paid indemnity claims from the DLI database. Using undeveloped rather than developed claim counts has little effect on the percentages, because the number of indemnity claims develops at nearly the same rate for the different insurance arrangements.

Figure 2.4 — Claim and loss data is from the MWCIA's *2008 Minnesota Ratemaking Report.* This data comes from insurance company reports about claim and loss experience for individual policies for the voluntary market and the ARP. The reported losses include paid losses plus case-specific reserves. Data is developed to a fifth-report basis using the development factors in the *Ratemaking Report,* which produces statistics at an average maturity of 5.5 years from the injury date; the statistics are then adjusted for average wage growth.

Figures 2.6 and 2.7 — Following the procedure in the MWCIA's ratemaking report, Figures 2.6 and 2.7 are based on "paid plus case reserve" losses. The data is from financial reports to the MWCIA by voluntary market insurers only. "Paid plus case reserve" losses are developed to a uniform maturity of eight years (an "eighth-report basis") using the selected development factors in the 2008 ratemaking report. Payroll data for Figure 2.6 is from insurer reports about policy experience.

Figure 3.1 — Statistics are derived in the same manner as for Figure 2.4, with one modification. Figure 3.1 presents data by claim type. For permanent total disability (PTD) and death cases, the number of claims and their average cost fluctuate widely from one policy year to the next because of small numbers of cases. Therefore, to produce more meaningful comparisons among claim types, PTD and death claims and losses were estimated by applying respective percentages of claims and losses (relative to the total) during the most recent three years to total claims and losses for 2004.

Figures 3.2, 3.6 and 5.14 — These figures include statistics about claims with stipulated benefits and with attorney fees. A modified procedure was used to compute these statistics, for the following reason:

In computing developed statistics, historical rates of development are used to project relatively immature data for recent injury years to a greater level of maturity than it has yet attained. The accuracy of the projection depends on the extent to which the immature data for these years will actually develop to the same degree as projected. In general, there is more room for error where relatively little actual development has occurred and the developed statistics contain relatively large projected components.

This is the case with developed statistics relating to stipulated benefits and claimant attorney fees for recent injury years. Data about these items is usually not established until fairly late in a claim, most commonly after a settlement conference or hearing has occurred at the Office of Administrative Hearings (OAH). Consequently, insurers report this data at a later point in the claim than they do most other data. This may impair the reliability of the associated developed statistics for recent injury years.

Therefore, a modified procedure was used to compute these statistics. In particular, the percentages of claims with stipulated benefits and with claimant attorney fees for the two most recent injury years (2005 and 2006) was projected from their 2004 values using the growth rate in the percentage of claims with disputes. The latter percentage was used for this projection because the percentages of claims with stipulated benefits and attorney fees closely follow the percentage of claims with disputes.

Figures 6.1 to 6.7, 6.4-A, 6.5-A and 6.8-A — The statistics in these figures were calculated from detailed claim data supplied by a large insurer. To remove the effects of changing claim composition with respect to gender, age and injury type, the statistics in these figures were computed as fixed-weight averages over gender, age and injury groups.[55] In this technique, the first step is to compute each statistic (e.g., the percentage of claims with evaluation and management services) for each year for each of several groups defined by gender, age and injury type.[56] Then the statistic for each year is computed as the average of that statistic over the gender, age and injury groups, using fixed weights for these different groups. This means the weight given to each group is the same for each year, so that changes in the relative sizes of the groups have no effect on the statistics. In these computations, the fixed weights were equal to the percentages of claims in the respective groups for the whole analysis period.

The statistics in these figures and appendices were computed by injury year at an average maturity of 5.5 years after the date of injury. Specifically, for the claims that arise in each year, medical services and costs were counted through Dec. 31 of the fifth year following the year of injury. For injury years 2003 to 2006, data of this maturity was not yet available.[57] Therefore, the figures for those years were projected to the same level of maturity as for previous years, using development factors computed from earlier injury years.

One challenge in analyzing this data is the presence of a few very high-cost claims which,

[55] Changing claim composition is an issue not only because it occurs in the general population of claims. It is particularly an issue in this instance because of possible changes in the employer clientele of the insurer supplying the data.

[56] The age groups were 14-29, 30-39, 40-49 and 50+. The injury groups were musculoskeletal injuries of the back, musculoskeletal injuries of limbs, other musculoskeletal injuries, rheumatic and orthopedic injuries, internal and late-effect injuries, burns, contusion and crushing injuries, disease, fractures, lacerations and amputations, multiple injuries and complex injuries (the last two categories involve different combinations of the other categories). There were 96 weighting groups (2 gender x 4 age x 12 injury type).

[57] DLI received the data in April 2008.

if simply left in the data, would introduce random fluctuations in the trends that would obscure the underlying tendencies that are of interest. This issue was dealt with in three steps. First, a small number of very high-cost claims were removed from the data using a service-group-specific cost threshold adjusted for cost growth over time.[58] Second, all calculations were performed on the data remaining after removing these claims. Third, the removed claims were recombined with the aggregate results from the second step, by distributing their numbers and costs by year, service group, and provider group, according to the numbers of claims and average claim cost by service and provider group by year in the pared-down data. This way, the high-cost claims are reflected in the results, but effectively as a layer of risk on top of the numbers that would result from the pared-down database alone.

For selected service groups, the change in the average cost of the service group per claim with services in the group was decomposed into (1) the change in average number of units of service per claim, (2) the change in average cost per unit of service (with a fixed service mix) and (3) the change in expensiveness of the service mix (Figures 6.5 and 6.5-A). This was only done for selected service groups because it requires well-defined codes for all types of service within the group, which was not the situation for all service groups. The first of the three components is self-explanatory. The last two were calculated as follows:

Change in average cost per unit of service (fixed service mix) — For each pair of adjacent years, the average cost per unit of service was computed for each year using *the average payment per unit for each type of service for the year in question* along with *the average service mix for the two years combined*.[59] The index of change for the two-year interval was then computed as the percent change between the two years in average cost per unit so computed. Thus, this index reflects only changes in the costs of particular services, not changes in service mix.

Change in expensiveness of service mix — For each pair of adjacent years, the average cost per unit of service was computed for each year using the service mix for the year in question along with the average payment per unit for each type service for the two years combined.[60] The index of change for the two-year interval was then computed as the percent change between the two years in average cost per unit so computed. Thus, this index reflects only changes in service mix, not changes in the costs of particular services.

[58] The threshold was 1.5 times the cost of the 10th-most-expensive claim by service category, combining claims from all years and adjusting cost by average cost growth within the service category.

[59] This is a simplified version of the computation. More detail is available upon request.

[60] This is a simplified version of the computation. More detail is available upon request.