

Reducing the Burden of Work-Related Injuries and Illnesses

Workers' Compensation claims in Michigan cost \$1.5 billion per year. Work-related injuries and illnesses are preventable conditions and not the inevitable cost of doing business. Nothing illustrates this better than the wide variation in the rate of injuries and illnesses between companies. The rate of workers' compensation claims and associated costs varies by industry, as some industries are more hazardous than others (e.g. foundry vs. accounting firm) and by state because of a different mix of industries in different states and differences in the level of benefits, and legal requirements between states (e.g. differences in minimum days off work required to be eligible for salary replacement). However, even within the same industry in the same state some companies have appreciably lower workers' compensation claims and costs than other companies, which do the same kind of work.

We have examined the potential reduction in workers' compensation claims in Michigan in 1999, 2000 and 2001 if each company within a given industry grouping performed as well (i.e. lower rate of claims) as the top 10% of companies in that industry. This analysis is modeled after similar analyses performed in Ontario¹.

Methods

A file of all workers' compensation claims that paid for seven or more days away from work for the years 1999, 2000 and 2001 was obtained from the Michigan Bureau of Workers' Compensation. Seven is the minimum number of days a worker must be away from work with a workplace injury or illness to be eligible for wage replacement from workers'

compensation in Michigan.

Michigan employers are required to have workers' compensation if they employ three or more employees and therefore companies with fewer than three employees were excluded from the analysis. Only companies that paid at least one claim during the three years were included in the analysis.

The rate of paid workers' compensation claims was calculated by dividing the number of paid claims by the number of employees in each company for 1999, 2000 and 2001. The 10th percentile rate of workers' compensation claims for all companies within each two-digit SIC was calculated. The expected number of compensation claims was then calculated for each company by multiplying the 10th percentile rate for the SIC by the number of employees in each company. The potential percentage reduction in paid workers' compensation claims if all companies had claims rates equivalent to the 10% of companies with the lowest claim rates in their industry type was calculated by subtracting the number of expected paid claims from the number of observed paid claims divided by the observed number of paid claims, multiplied by 100 within each SIC. This calculation was done separately for companies with less than 20 employees and those with 20 or more employees. Only the results for companies with 20 or more employees are presented.

Results

From 1999 to 2001, there were 127,508 claims paid for wage replacement for lost time of seven days or more in 47,644 companies in Michigan. Sixteen

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percent of the claims paid were in companies with less than 20 employees.

Table I shows that the number of claims paid would be reduced by 58% if companies with 20 or more employees did as well as the top 10th percentile of companies in the same SIC. The reductions are similar for companies with less than 20 employees.

Results for the individual industries with the largest number of companies with paid worker compensation claims are also shown in Table I. Manufacturers of transportation equipment, and public administration had the highest potential for reductions among the larger companies.

Discussion

If all companies did as well as the top 10 percent of companies in their industry category then there would have been 72,923 fewer lost time workers' compensation claims paid in 1999-2001 in Michigan. This is a 58% reduction for companies with 20 or more employees and 53% reduction for companies with less than 20 employees. A study in Ontario on workers' compensation data from 1998 to 2001 found a similar reduction of 60%¹.

In 2000, workers' compensation benefits as a percent of covered wages varied from .52 to 3.96%, averaging 1.04% among all states². This compares to variation in the median rate of claims from .11 to 8.1 per 100 employees between industries in Michigan, and 0 to 292 claims per 100 employees between companies in the same SIC.

There are multiple reasons why companies in the same industry category may have lower paid workers' compensation claims: 1) a company may have a lower injury and illness rate; 2) a company may manage injuries and illnesses differently by allowing/encouraging/requiring employees to return to work with accommodations prior to the minimum seven day requirement needed to be eligible for a lost work time claim; 3) a company's policy may decrease paid workers' compensation claims for lost work time by encouraging the inappropriate use of health insurance, contesting legitimate workers' compensation claims or other policies that discourage the filing of workers' compensation claims.

Ideally, one could identify primary prevention strategies that could be adopted by companies with the higher workers' compensation claim rates. If primary prevention was not feasible, then potentially secondary prevention to better treat and manage injured workers could be adopted by the companies with the higher rates.⁴ The third approach, which involves shifting of costs rather than primary or secondary prevention, would be activity that one

would want to discourage/eliminate.

A study of Michigan workers' compensation claim data from 1986 for companies with 50 or more employees found a 10 fold range in claims incidence by companies within the same SIC³. A follow-up survey of 124 firms from four industries with high and low claims found that low claim companies were more likely to have activity to promote employee health, to use modified duty, to involve the supervisor in return to work practices, and to provide work incentives such as profit sharing. The limitations of this study included only a 43% response rate on the follow-up survey and that the data was self-reported³.

There are two main limitations to the data. Companies with no paid workers' compensation claims for lost work time were not included in calculating the percentiles. Fifty-nine percent of the larger companies and 90% of the smaller companies had no paid workers' compensation claims. Inclusion of companies with no claims would increase the number of claims that could be prevented because for many industries, particularly for small companies, no claims would be expected if all companies did as well as the top 10% of companies in that industry.

A second limitation is that claims for medical care only without lost work time or where there were less than seven days off in a row were not included in the analysis since these claims are not computerized and could not be accessed. To obtain a complete picture of workers' compensation costs as well as to evaluate whether some of the differences in workers' compensation claims for lost time between companies are secondary to programs to accommodate injured workers one would need to also evaluate differences in workers' compensation claims paid for medical costs only.

The large differences in workers' compensation claims within a single industry in a single state highlight an issue that has not been addressed by workers' compensation "reforms". Efforts at "reforming" workers' compensation by state legislatures, which are typically initiated to reduce employer costs because of data showing that one state has higher worker compensation costs than another, reduce employee benefits or change eligibility criteria but do not address the major differences in costs between companies from the same industry.⁵ Clearly some companies are more successful than other companies in reducing workers' compensation claims. Programs that encourage companies with the highest rates to implement the preventive and disability management approaches used by the companies with the lowest rates would be true reforms that have significant health benefits in reducing both morbidity and costs.

Table I. Percentage of Companies with No Paid Workers' Compensation Claims; Number of Paid and Mean/Median Rate per 100 Employees and Percent Reduction in Paid Worker Compensation Claims if Companies had Claims Equivalent to the top 10th Percentile for Companies with > 20 employees by Industry (2 Digit SIC), Michigan 1999-2001

| Industry (SIC)* | Number of Companies | % With No Claims | Number of Paid Workers' Comp Claims | Mean/Median** Rate per 100 Employees | % Reduction In claims at 10 th percentile |
|---|---------------------|------------------|-------------------------------------|--------------------------------------|--|
| Construction | | | | | |
| Special Trades (17) | 1,584 | 25% | 5,629 | 4.8/3.9 | 56% |
| Manufacturing | | | | | |
| Rubber and Plastics (30) | 539 | 40% | 2,307 | 2.7/1.9 | 72% |
| Fabricated Metal (34) | 1,180 | 31% | 5,601 | 3.3/2.5 | 61% |
| Industrial and Commercial Mach. (35) | 1,563 | 40% | 4,274 | 3.2/2.5 | 58% |
| Transportation Equipment (37) | 597 | 36% | 12,160 | 4.2/1.5 | 84% |
| Wholesale Trade | | | | | |
| Durable Goods (50) | 1,891 | 59% | 2,728 | 3.3/2.6 | 54% |
| NonDurable Goods (51) | 876 | 52% | 2,764 | 3.2/2.5 | 71% |
| Retail Trade | | | | | |
| General Merchandise (53) | 716 | 63% | 2,379 | 1.4/0.7 | 52% |
| Food Stores (54) | 1,199 | 60% | 1,836 | 2.8/1.9 | 52% |
| Auto Dealer & Gasoline Stations (55) | 1,083 | 48% | 1,559 | 2.8/2.2 | 46% |
| Eating and Drinking (58) | 4,745 | 73% | 2,920 | 2.5/2.1 | 57% |
| Miscellaneous Retail (59) | 1,308 | 81% | 851 | 2.7/1.9 | 55% |
| Services | | | | | |
| Business (73) | 2,445 | 63% | 5,789 | 3.1/1.6 | 73% |
| Health (80) | 2,031 | 60% | 8,038 | 2.2/1.4 | 59% |
| Educational (82) | 2,715 | 78% | 5,490 | 2.7/1.1 | 43% |
| Membership Organizations (87) | 1,163 | 75% | 1,183 | 2.9/1.8 | 74% |
| Public Organizations | | | | | |
| Executive, Legislative and General (91) | 523 | 24% | 4,759 | 2.7/2.1 | 89% |
| Total*** | 39,213 | 59% | 106,872 | 3.2/2.2 | 58% |

*Results of individual SICs are only shown for SICs with 500 or more companies.

**Mean/Median rate is calculated only for companies with at least one paid claim, the employees of companies without paid claims are not included in the denominator.

***The total includes all SICs.

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