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## Aligning Technology With Workers Compensation Results

The Katie School of Insurance at Illinois State University has recently completed a year-long study examining the effect of technology on workers' compensation claims. The study targeted risk managers of Fortune 1000 companies, claim management at insurance carriers with more than \$10 million in workers' compensation premium, and third party administrators (TPAs). Overall 108 organizations participated in the study. The study began in July 2003 with extensive, structured interviews of people in all of the target segments, at all levels in the organization. From these interviews a pilot survey was developed and finally a national survey was conducted early this year.

This national survey captured information on the following six parts:

- A. Key Problems and Concerns
- B. Classification of responder (including experience for companies and combined ratio for carriers.)
- C. Perceived usefulness and utilization of 30 different claims technologies
- D. Outcomes and benefits realized from technology implementation
- E. Barriers and obstacles to implementing claim technology
- F. Workers' compensation claims management technology decision-making

Participants responded to multiple questions within each of these parts.

### **Points of Pain: Key Problems and Concerns**

Part A of the survey asked respondents to rank 30 different claims issues on a scale of 0 to 10. 10 signified that a problem was *critical*, 5 indicated the problem was *significant*. The findings indicated that risk managers, carriers, and TPAs were most concerned with finding technology solutions to address the following top five problems:

1. Rising medical costs (7.75)
2. Getting workers back to work (6)
3. Lack of data standards (5.3)
4. Establishing accurate reserves (4.9) and
5. Lack of ability of system to measure items that improve performance (4.8)

Perceptions of problems and concerns varied by type of organization. TPAs viewed lack of data standards as a much higher concern than the others (7.0) compared to (5.5) for carriers and (4.7) for risk managers. Insurance carriers rated late claim reporting as more of a problem than risk managers (5.0) compared to (3.2).

### **Perceived Utilization and Usefulness of Technologies**

Part C of the survey probed the perceived usefulness and utilization of thirty different claim technologies asking respondents to rate technologies on a scale of 0 to 10 with 10 being "*absolutely essential*" on usefulness and 10 being "*fully utilized*" on the utilization scale. Perhaps not surprisingly given rising medical cost, the top rated technology in both terms of usefulness (8.4) and utilization (6.3) was Automated Medical Bill Review. Other technologies that were rated highly in usefulness were Timely, Detailed Loss Analysis (8.3), Loss Forecasting (7.8), and Ad hoc Exception Reports (7.6). Integrated Incident Intake and Reporting was rated high by all types (7.4) and Data Conversion ranked high by all targets but especially TPAs (8.1). TPAs also rated EDI and Electronic Payment and Reconciliation over 9.0 in usefulness. Carriers also valued Customer Loss Reporting, and Automated Forms and Letter Generator technologies.

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### **THIS ISSUE'S CONTRIBUTOR**

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### **THE TECHNOLOGY PARADOX**

Given all the variables and factors which can influence loss costs, return-to-work results, and even administrative costs it was thought that finding a statistically significant correlation between any one technology and these results would be remarkable. Surprisingly, nine technologies did show such correlations and some of the correlations were quite strong. Electronic submissions by medical providers showed reductions in both loss costs and loss severity. Electronic best practices library showed improvements in claim audit productivity, return-to-work, and settlement times. Electronic legal bill audits, automatic adjuster scorecard, and total cost of risk analysis showed correlations to reduced administrative costs.

Despite the positive correlations of these technologies to workers compensation results, there was no overall correlation between technological sophistication and results. Firms were given a score of between 0 and 300 based on the number of technologies they had and their level of utilization of these technologies. Some technologically sophisticated organizations reported excellent returns while others at the same level did not. On average, there was a positive correlation between technological sophistication and results up to a mid-range of sophistication (120 out of a score of 300). Beyond that point the correlations ceased.

Several explanations have been offered to explain this phenomenon, such as poor systems integration, already maximized returns on mature technologies, and adjuster turnover, but to date no explanation has fully explained this paradox.

Overall utilization of technology was higher by TPAs than by carriers or risk managers. Utilization of technology by carriers was significantly higher with larger carriers (over \$300 million in premium) than with smaller and medium sized carriers. Interestingly a number of technologies, especially newer technologies showed wide gaps between usefulness and utilization. Some of the newer technologies showing wide gaps between perceived usefulness and actual utilization include (in order of gap size):

1. Electronic submission of medical bill by provider
2. Automated adjustor scorecard
3. Best practices library
4. Automated fraud indicators
5. Loss prevention report & exposure mapping
6. Total cost of risk analysis
7. Automated reserve tracking
8. Electronic legal bill audit

As explained in the sidebar on the Technology Paradox, many of these newer technologies showed strong correlations to improvements in workers compensation results and seem to offer considerable potential.

**Technology and Workers Compensation Results**

Overall respondents reported a wide range of results from implementation of technology. Nearly 45 percent of respondents reported improvements between 5 and 15 percent in *loss costs*. As indicated in Table 1 below, reductions in *administrative expenses* ranged from under 5 percent to greater than 30 percent.

Perhaps one of the most revealing findings relates to return-to-work results. As Table 2 indicates, some organizations achieved remarkable results, while others achieved little. This finding indicates the importance of two truths. One is that technology effectiveness is influenced by the environment, systems and processes surrounding it. The second is that technology is only as effective as the people using it.

The mixed results may be due to jurisdictional differences such as employer choice venues versus employee choice, and liberal hearing boards but may just as likely to be due to a lack of focus on this important driver of loss severity. A somewhat startling fact is that nearly 40 percent of the respondent organizations do not measure their improvements in return to work. This may relate to one of the concerns cited in the first part of the survey, in that “the system doesn’t measure what’s important.”

In general, the potential for technology to make significant improvements in bottom line results appears well-established, but technology must be combined with effective processes and knowledgeable people who can maximize its potential.

**ABOUT THE STUDY AND RESEARCHERS**

The primary researchers on this study were James R. Jones, Katie School Director, and Michael R. Williams, Ph.D. Both have conducted research on numerous industry issues. Funding for this research came from Corporate Systems, now part of Marsh CS Stars.

Additional information about the Katie School at Illinois State University and industry studies can be found at [www.katieschool.org](http://www.katieschool.org)

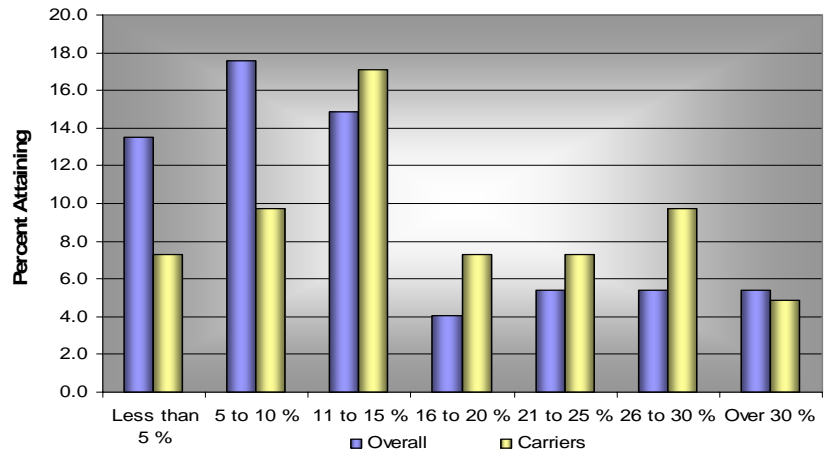
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**Table 1: Reduced Administrative Expense**



**Table 2: Improved R-T-W**

