



ErgoPRO for the Construction Industry

Risk Control



CNA



At CNA Risk Control, we know that construction businesses are finding it harder than ever to be profitable. The construction workforce is aging at a steady rate and profit margins are thinner than ever. Through our research and analysis, we have gained an understanding of job site exposures, specific job tasks and workforce limitations within the construction industry that can impact productivity and efficiency. The result is our ability to provide businesses with a focused approach to reducing their non-productive time and enhancing contractors' ability to turn profits.

We consult on strategies to improve bottom lines

Construction-related businesses are being forced to manage issues that negatively affect their profitability. That is why they need strategies for increasing efficiencies and productivity. These businesses can institute solutions that maintain or increase their overall profitability and lower risk.

Handling Risk Exposures in the Construction Industry

CNA Risk Control has developed ErgoPRO for the Construction Industry (a process to increase efficiency and productivity in construction). The ErgoPRO process can educate business owners and safety and risk managers in the industry on how to minimize risk and maximize profit potential. The process outlines:

- The effects of pre-planning and its impact on profits
- The impact that staging of materials has on profits and exposure to losses
- The components that help determine if a job will be safe and profitable
- Practices that directly impact the construction industry's key loss drivers



Surviving on narrow profit margins

Construction businesses are facing the pressure of a multitude of factors affecting profit margins:

- **Competition** — The number of construction contractors has increased by approximately 250 percent since 1970.
- **Medical Claims** — Costs have been increasing at an average annualized rate of 8.1 percent per year since 1996, according to the National Council on Compensation Insurance, Inc. (NCCI).
- **Indemnity Claims** — Costs are rising at the same rate of 6.8 percent per year since 1996, according to NCCI.
- **Employee Benefits** — According to the American Medical Association and USA Today, the cost of medical benefits offered to employees could increase approximately 10 percent every year between now and 2014.
- **Insurance** — Since 2000 costs have risen, even though coverage has decreased.

Remaining profitable as employees reach advanced working ages

Retention of quality employees is vital for all businesses, especially construction businesses. However, the average age of industry employees continues to rise closer to retirement age (see figure 1).

There are several age-related issues of concern for U.S. construction businesses. The Bureau of Labor Statistics (BLS) estimates that:

- By 2015, 55 million workers will be age 45 or older
- By 2015, nearly 50 percent of workers will be age 54 or older
- By 2008, the number of workers age 55 or older will be double what it was in 1998
- By 2008, the population of workers between the ages of 24 and 54 will only be 5 percent higher than it was in 1998

Statistics show that the recovery time from injuries is lengthier for aging workers than for their younger counterparts:

- Workers aged 40-49 experience approximately a 72 percent increase in lost workdays compared to workers aged 30-39
- Workers aged 50 and older experience approximately a 261 percent increase in lost workdays compared to workers aged 30-39

ErgoPRO helps construction businesses operate smoothly even if a significant portion of their workforce is of advanced working age. Businesses must plan ahead for turnover related to retirement and other age-related issues.

Working with inexperienced employees and a smaller talent pool

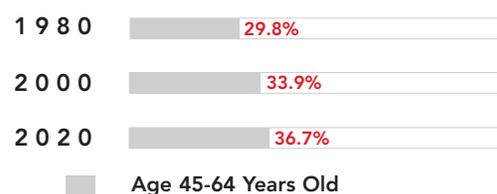
Our research indicates that inexperienced workforces negatively affect quality of work, efficiency and profitability. This fact highlights the necessity of attracting, training and retaining experienced staff members.

Empirical data has proven the need for greater attention to training and then retaining new workforce members:

- Fewer people are choosing to work in the trades
- Fewer veterans of the armed forces, which can provide excellent industry training, are choosing the trades
- The cost of training is going to increase
- Fewer graduates of vocational programs are available

In addition to the rise in training costs, quality of work is decreasing and defect rates are increasing. This is requiring increased work by employers — which incurs unnecessary expenses. Companies are being forced to increase prices and face the potential of losing customers. The number of on-the-job accidents is also increasing as a result of an inexperienced workforce.

figure 1. The Aging Construction Workforce



Note: 2020 is an estimation.

“Crunching the numbers”

In ErgoPRO, we demonstrate how construction businesses can improve their productivity. We show you how even small improvements can stimulate a significant increase in profitability.

ErgoPRO helps construction businesses think about expenses and profits in a more productive way. The popular way of thinking — whereby businesses grow their revenue or top line while trying to keep their overhead costs low — may not maximize profit potential. By focusing only on the top line, contractors can mismanage their businesses and suffer financial hardship. However, if they focus on their bottom lines, specifically efficiency and productivity, they can realize much more significant profits through proper planning, staging of materials and work method techniques.

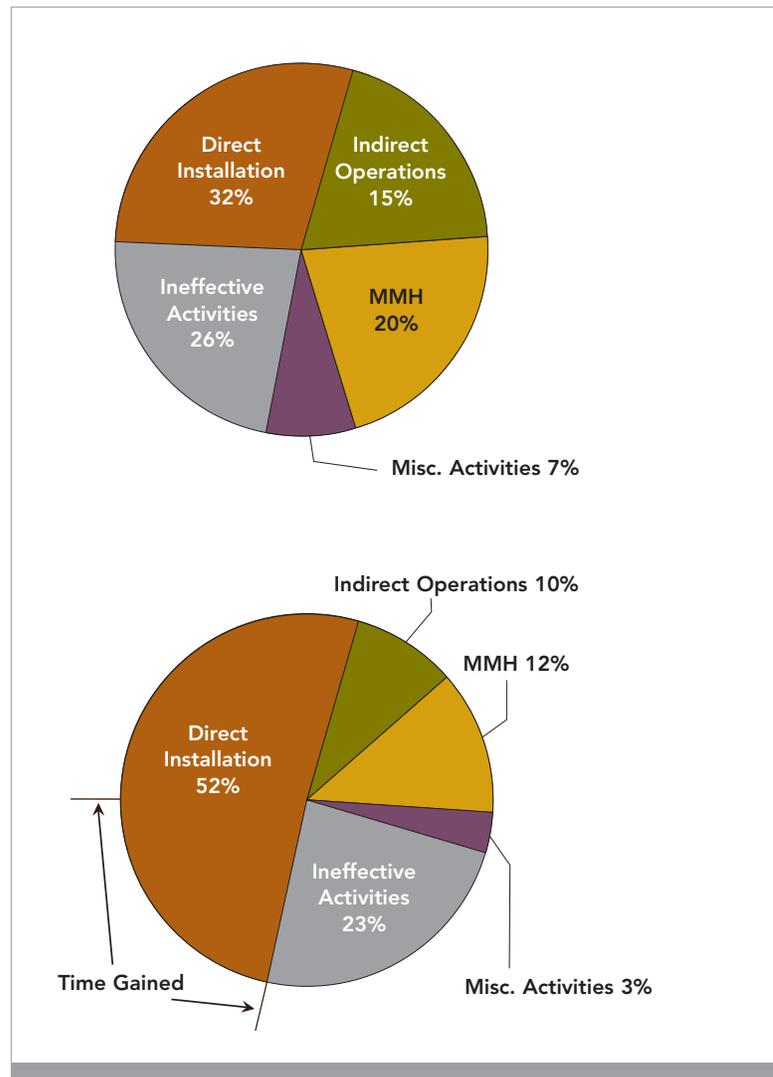
Studies conducted by CNA have indicated that up to 2.5 hours of inefficiencies per employee per day can be incurred on a construction site. Similar studies by the Province of Ontario, Canada and the University of Texas have indicated even higher rates of non-productive time, 68 percent and 66 percent respectively.

In these studies, several work categories were analyzed from a production standpoint:

- **Direct Installation** — The actual installation of materials
- **Indirect Operations** — The planning and setup of jobs
- **Manual Materials Handling (MMH)** — The handling of materials for installation, demobilization, etc.
- **Ineffective Activities** — Scheduling issues, break overruns, late starts, etc.
- **Miscellaneous Activities** — Miscellaneous non-productive activities

Increased net profits can be realized by increasing the time crews spend performing direct installations vs. non-productive or ineffective activities (see chart 1). Businesses must give greater attention to efficiently and effectively managing the amount of time spent on indirect operations and manual materials handling.

chart 1. Production vs. Non-Production





Introducing new methods to increase productivity and success

In ErgoPRO for the Construction Industry, we will share research on construction businesses and what can increase their productivity. We have analyzed the tasks workers perform on a daily basis and identified the practices that we believe can positively impact job site productivity and efficiency. As a result, we can advise companies on how to retain their most experienced workers by reducing risk exposures. We focus on the following facets of the job to capture various job sequences for the purpose of identifying opportunities from beginning to end:

- Scheduling
- Lay down yards/material storage
- Staging areas
- Work areas
- De-mobilizing
- Post-construction

Our analysis also indicates that the biggest opportunities for increasing profit and reducing risks center around:

- Staging
- Manual Materials Handling
- Work method techniques

Please see the attached CD-ROM for more detailed information.



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Let us help you create new efficiencies today.

To learn more about how ErgoPRO for the Construction Industry can help your construction business manage risk, increase efficiencies and be more productive, call us toll-free at 866-262-0540.

Or, visit the CNA Risk Control Web site at www.cna.com/riskcontrol

To discover the broad range of insurance products available from CNA, contact your independent agent or broker or visit www.cna.com



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