



Measuring Injuries Along the Construction Subcontracting Chain

Measuring Injuries Along the Subcontracting Chain in the U.S. Construction Industry

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Overview

U.S. construction has relatively high rates of both injuries and subcontracting. Previous research found that subcontracting is associated with higher injury rates. This study examines how subcontracting distributes injury risks among contractors. The researchers matched a nationally representative sample of establishment-level contractor data from the Census Bureau with corresponding workplace injury data from the Bureau of Labor Statistics to track how injury risks are distributed via subcontracting work for approximately 18,000 establishments during 2007, 2012 and 2017. Contractors were categorized in four tiers: 1) up-chain contractors receive work from owners and subcontract-out some of it to 2) mid-chain contractors, who subcontract-in most of their work from other contractors and subcontract-out some work to other mid-chain contractors or to 3) down-chain contractors, who receive work from prime or other subcontractors but do not themselves subcontract-out. The fourth group is off-chain contractors, who receive work from owners, self-perform it, and do not subcontract-out. The study hypothesized that in the aggregate, subcontracting triages safety risks towards lower-tier subcontractors.

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Read the report:

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Key Findings

- Comprehensive, nationally representative data covering all sectors of the U.S. construction industry supports the conclusion that the process of multiple layers of subcontracting leads to more dangerous work being done by workers further down the chain of subcontracting.
- Off-loading scopes of work provides contractors the opportunity to triage injury risks.
- Off-chain contractors and up-chain prime contractors, both of whom receive work directly from project owners and then either keep it or subcontract-out some of it, tend to have lower injury rates.
- Mid-chain and down-chain subcontractors, who receive much of their work from other contractors rather than from owners, tend to have higher injury rates.
- This study is agnostic regarding whether, in the aggregate, triaging risk down contracting chains makes construction safer or more dangerous. Lower-tier contractors may or may not have a comparative advantage in mitigating the increased risks they receive.
- Traditionally, policies seeking to implement safety procedures and regulations seeking to orchestrate safer construction practices focus on where injury risks are highest. This approach examines the specific nature of work (working at heights, in confined spaces, with electricity or toxic substances). We suggest an additional, complementary focus—looking at scopes of work received from up-chain (higher tier) contractors, especially at the terminus of subcontracting chains where further triaging ceases.



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