SIMPLAR FOUNDATION

STUDY AT A GLANCE

Schedule Duration and Labor-Curve Outcomes

Report 3 of 6 in Volume 1 of the *Multiskilling in the U.S. Construction Industry* research series

1 THE PROJECT RECORDS

Contractors provided day-by-day labor records from recent projects built with a multiskilled labor strategy.

18 project records from **11 contractors**

14 project types in **9 states and DC**

183 workers

10,194 worker days

89,620 labor hours

8 of 18 prevailing wage projects

2 THE EXTENT OF MULTISKILLING OBSERVED

Workers recorded hours outside their primary trade on every project.

17.3%
of labor hours were multiskilling hours
(5% to 50% by record)

18 of 18
records had multiskilling hours

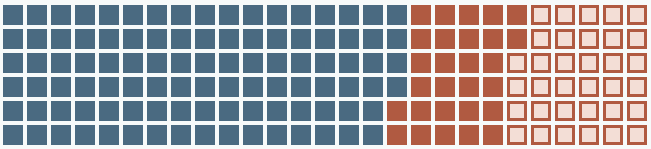
80
trade combinations
across 18 trades

3 IF EACH WORKER WERE LIMITED TO ONE TRADE

Estimated effects from schedule and labor-curve analysis:

SCHEDULE

Workdays to finish the same work



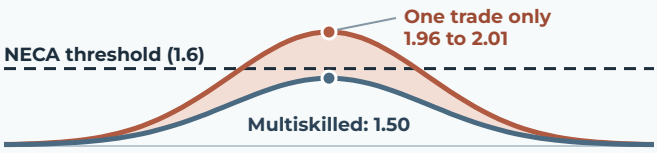
Multiskilled: 100 workdays One trade only: 28 to 62 more

28% to 62%
more workdays to finish the same work (central schedule assumption)

73%
of workdays with a trade gap

LABOR CURVE

Peak-to-average ratio



Multiskilled, as recorded One trade only, estimated

9 to 12
added workers per 100 workers on an average day

31 to 34
added workers per 100 workers on the peak-demand day

4 PRACTICAL TAKEAWAYS

Plan by trade and workday
Compare the hours each trade needs with the qualified workers available each day, not total headcount alone.

Plan for peak-demand days
Added staffing needs on the peak-demand day were about three times the average-day need.

Build targeted skills
Add skills that cover the trade gaps that keep recurring.

Use where qualified
Broader assignments must keep specialization, verified qualifications, safety, and quality in place.

Modeled, not measured
The results are estimates built from labor records, not measured delays or productivity gains.

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