

CPWR Research on Industry and Fatality Trends in Construction

OSHA Alliance Program Construction Roundtable
The Changing Face of Construction: What's Next for the Industry

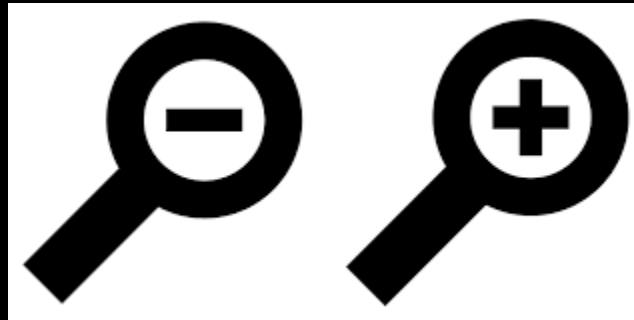
Rick Rinehart, ScD
September 20, 2018



THE CENTER FOR CONSTRUCTION
RESEARCH AND TRAINING

Intent

- To zoom out on construction industry trends and zoom in on trends of fatal injuries, with a focus on establishment size.



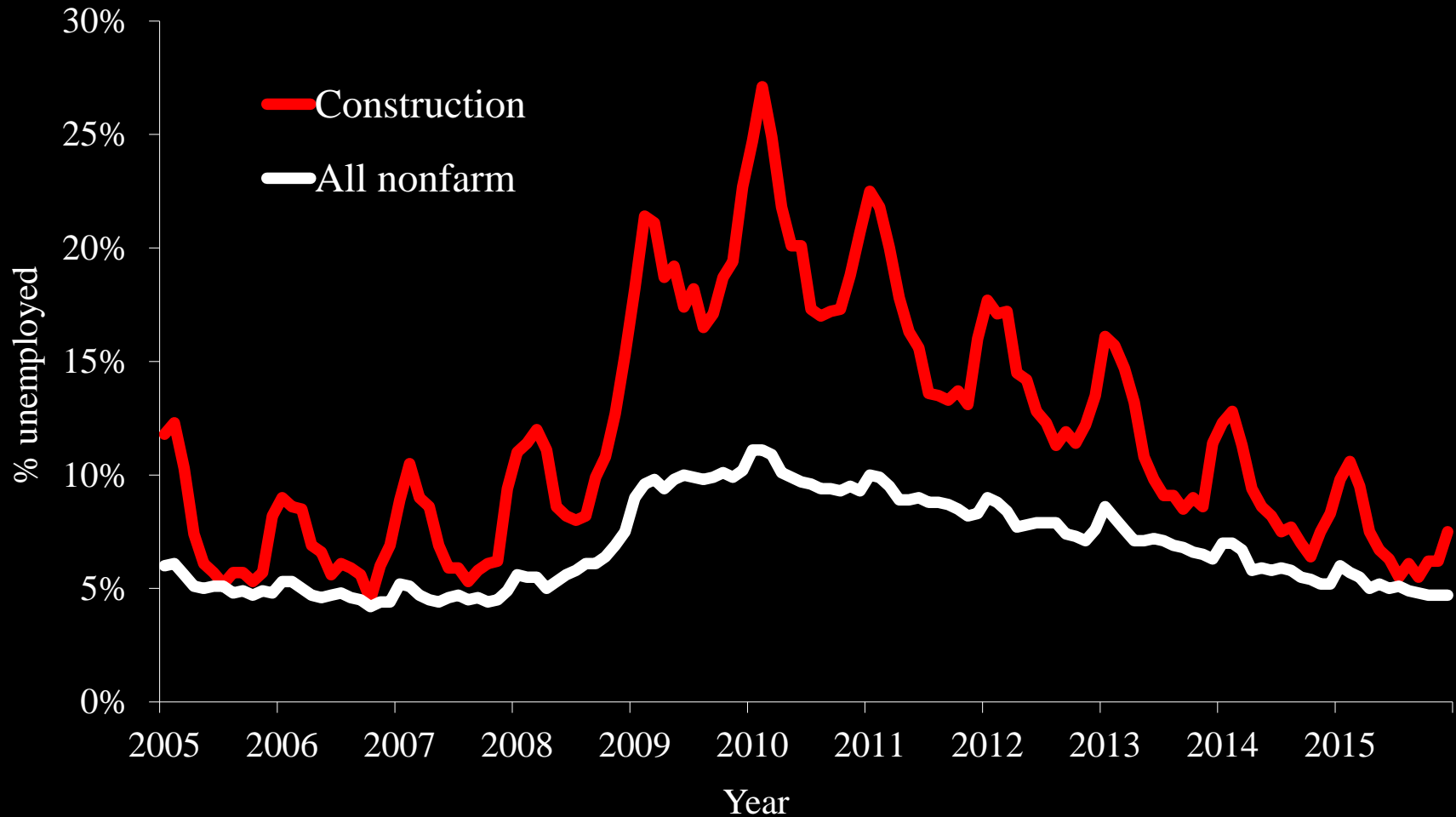
Construction industry trends

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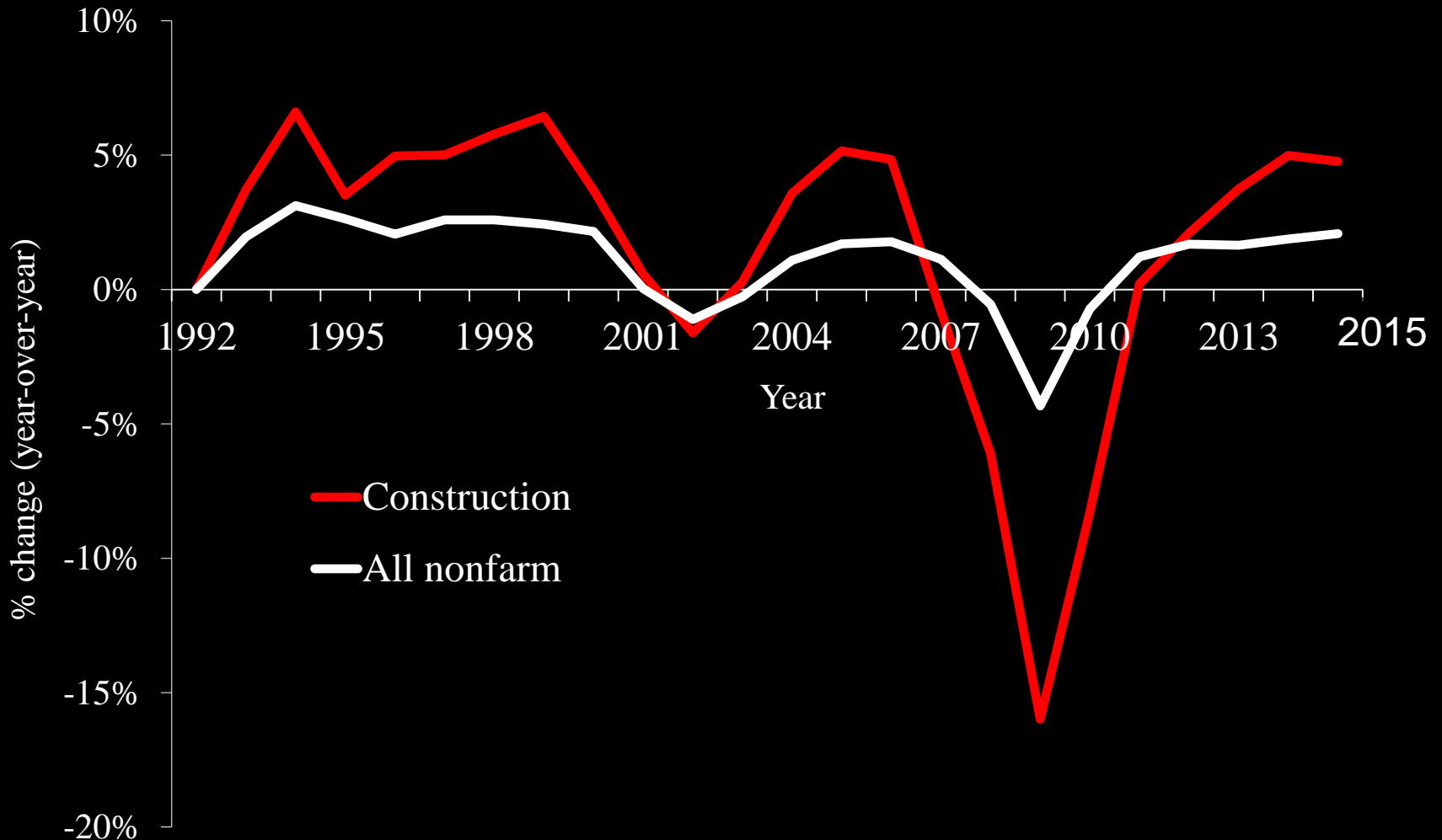
The unemployment rate in construction dropped from a peak of 27.1% in February 2010, to 7.5% by the end of 2015, the lowest level since 2007

Monthly unemployment rate, construction versus all nonfarm industries, 2005-2015

(Not seasonally adjusted; private wage-and-salary workers)

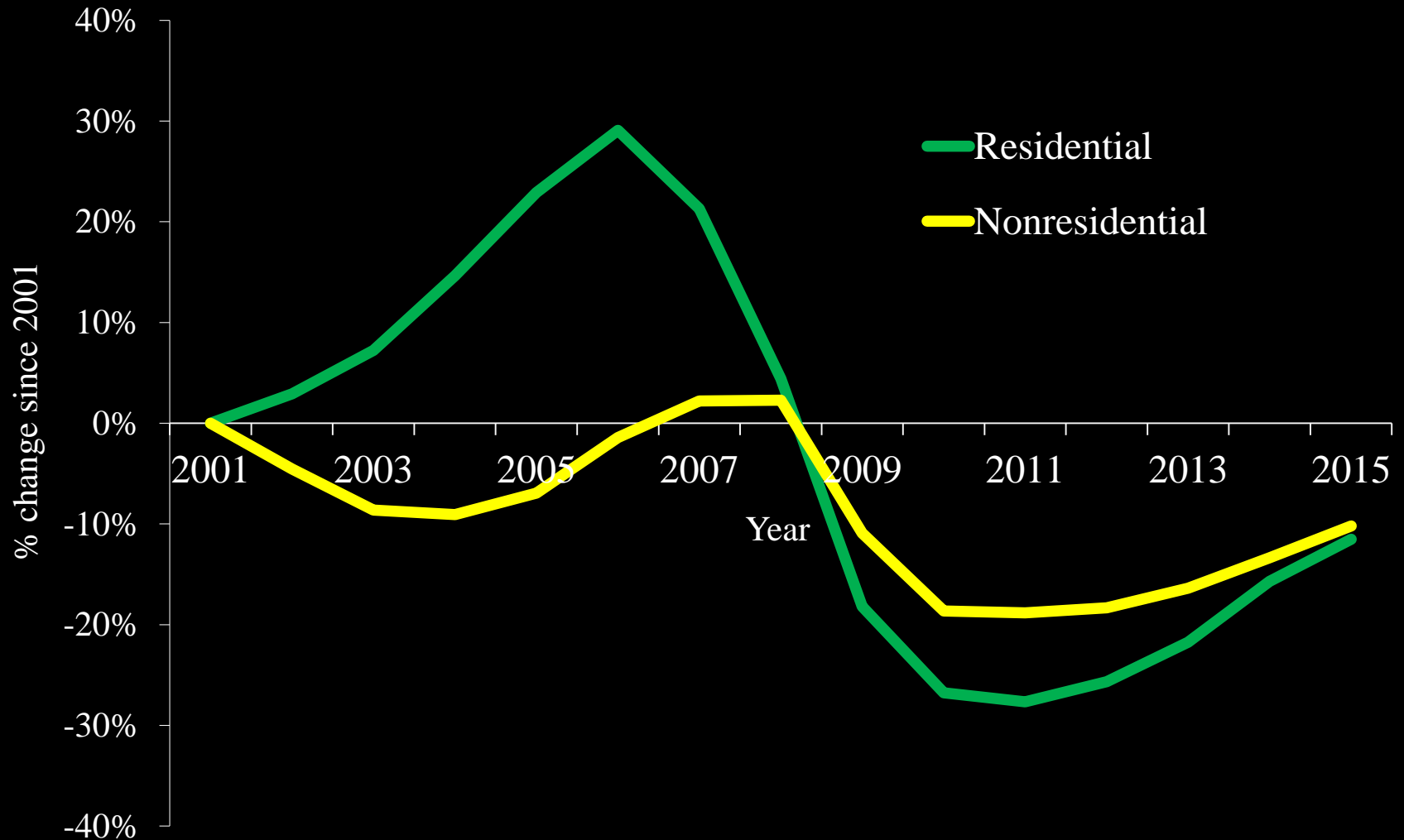


Year-over-year change in payroll employment, construction versus all nonfarm industries, 1992-2015



Source: CPWR, 2018. The Construction Chart Book, 6th edition (chart 20b).

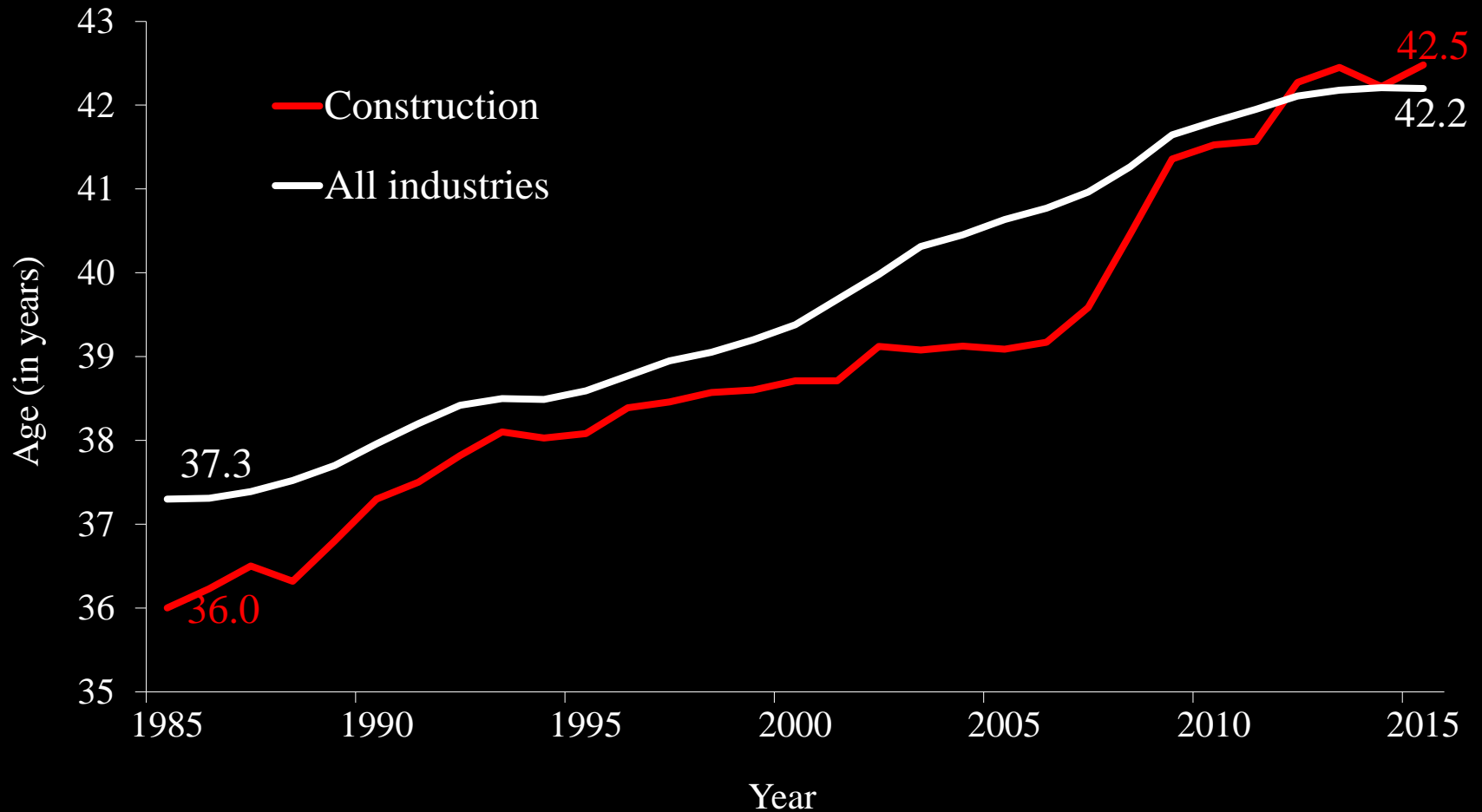
Percent change in payroll employment since 2001, residential versus nonresidential building construction, 2001-2015



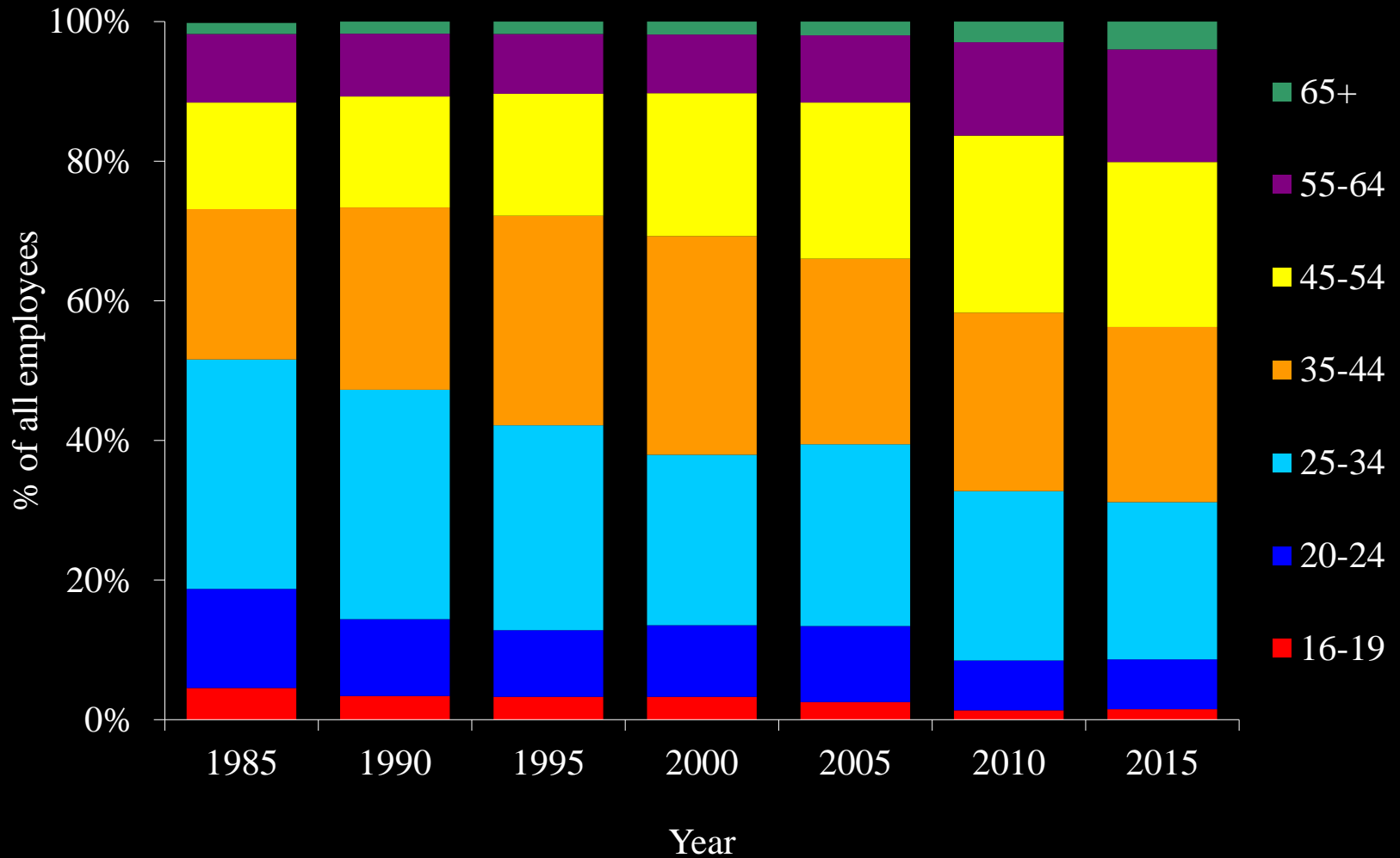
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Between 1985 and 2015, the average age of construction workers moved from 36.0 to 42.5 years, exceeding the average age for all industries

Average age of workers, construction versus all industries, 1985-2015 (All employment)



Age distribution in construction, selected years, 1985-2015

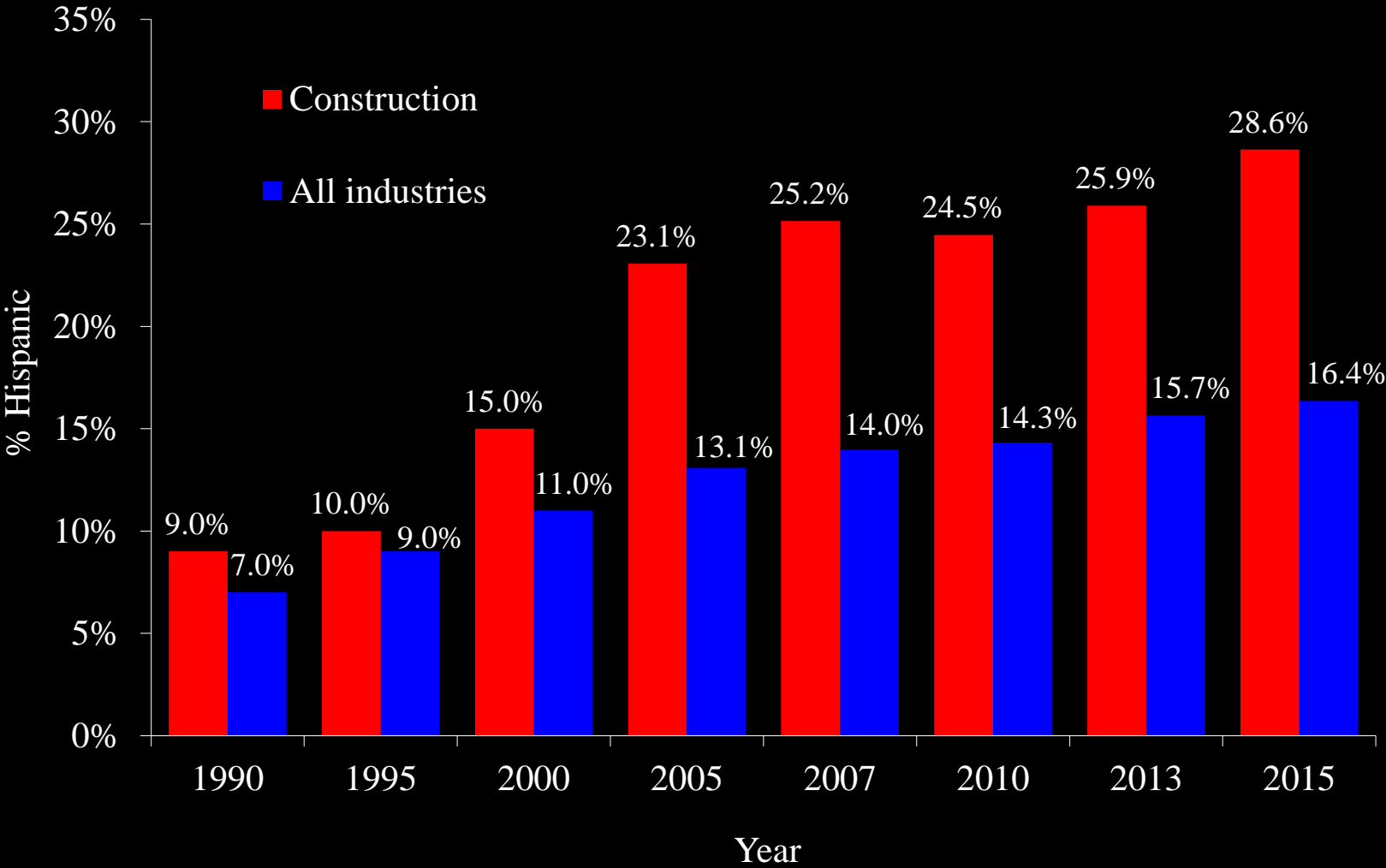


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The share of Hispanic workers more than tripled in the construction industry from 1990 to 2015, from 9.0% to 28.6%.

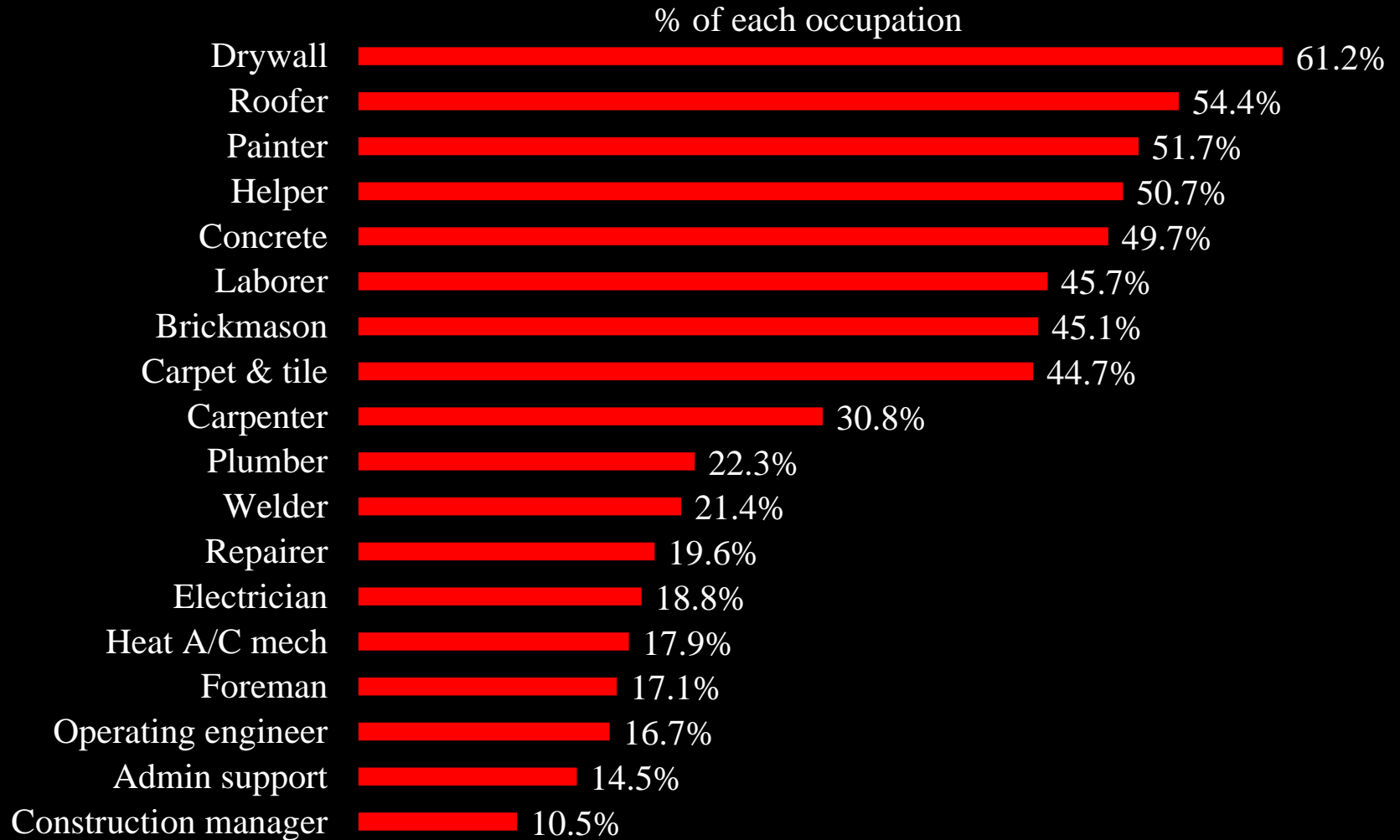
Within some occupations, more than half of the workers were Hispanic in 2015.

Hispanic workers as a percentage of the workforce, construction versus all industries, selected years, 1990-2015 (All employment)



Source: CPWR, 2018. The Construction Chart Book, 6th edition (chart 16a).

Hispanic workers as a percentage of the workforce, selected construction occupations, 2013-2015 average (All employment)

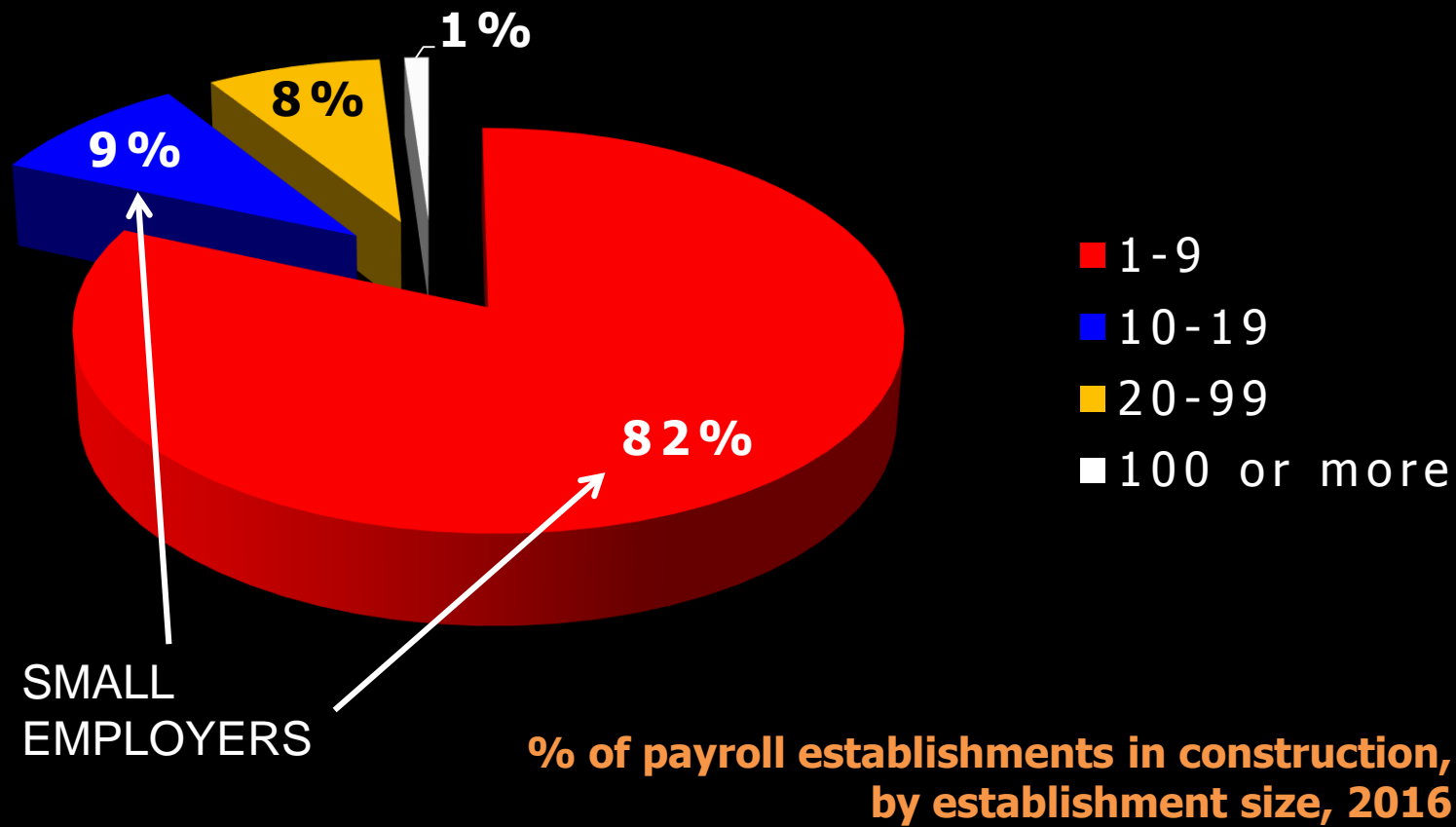


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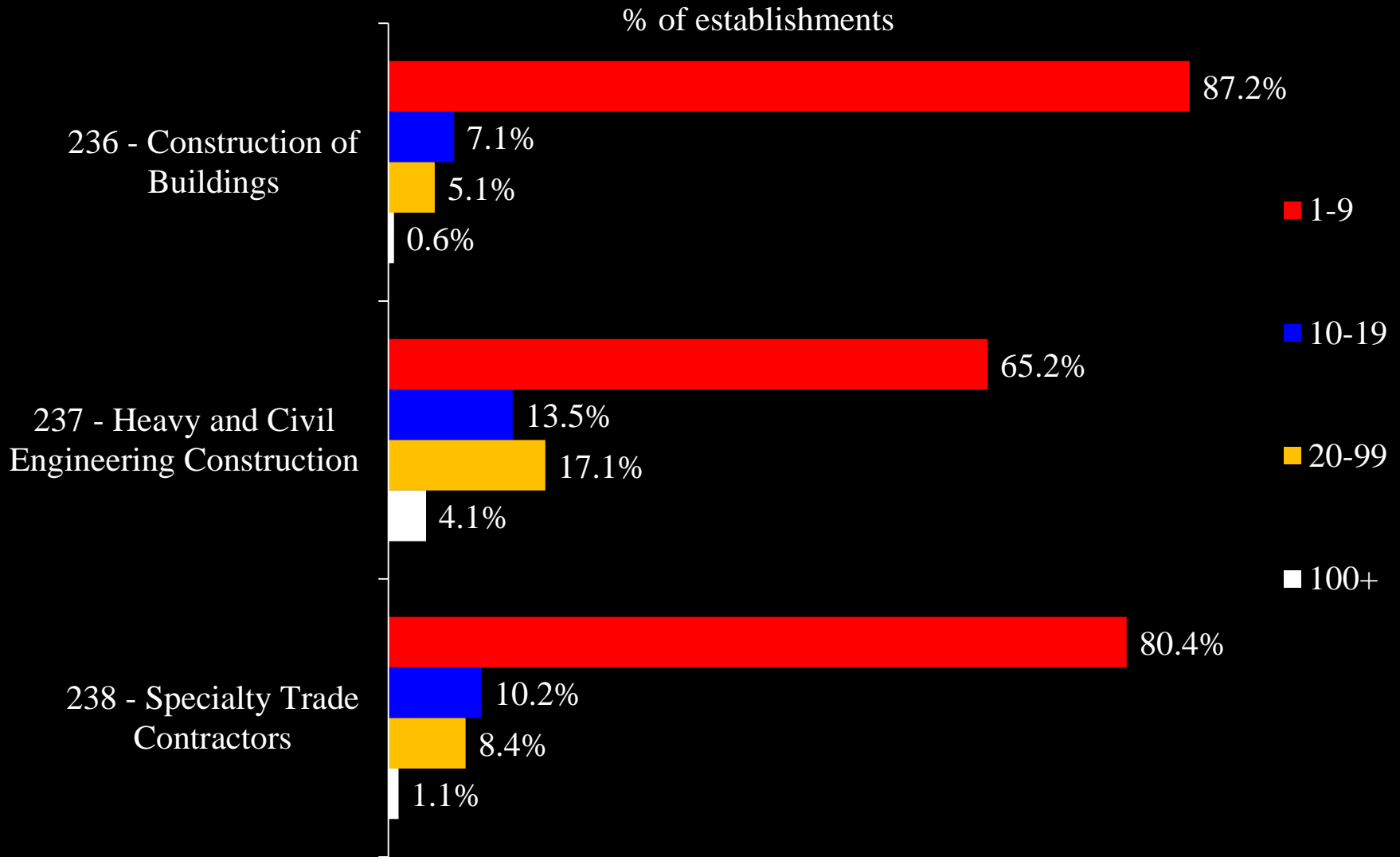
In 2016, about 82% of payroll establishments in construction had fewer than 10 employees, and another 9% had 10-19 employees.

Construction establishments are mostly

SMALL EMPLOYERS



Percentage of construction payroll establishments by construction subsector and establishment size, 2016

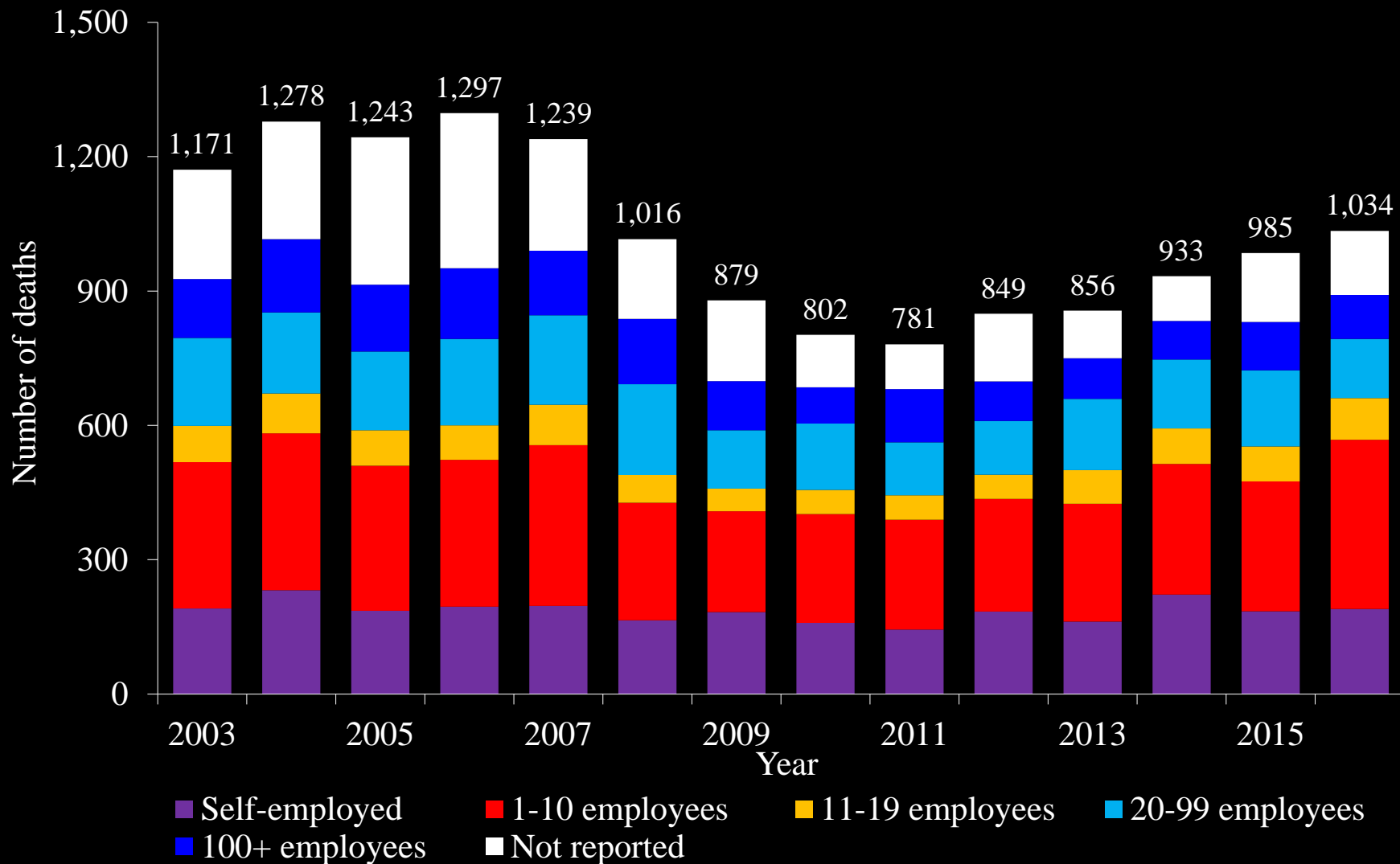


Trends of fatal injuries, with a focus on establishment size

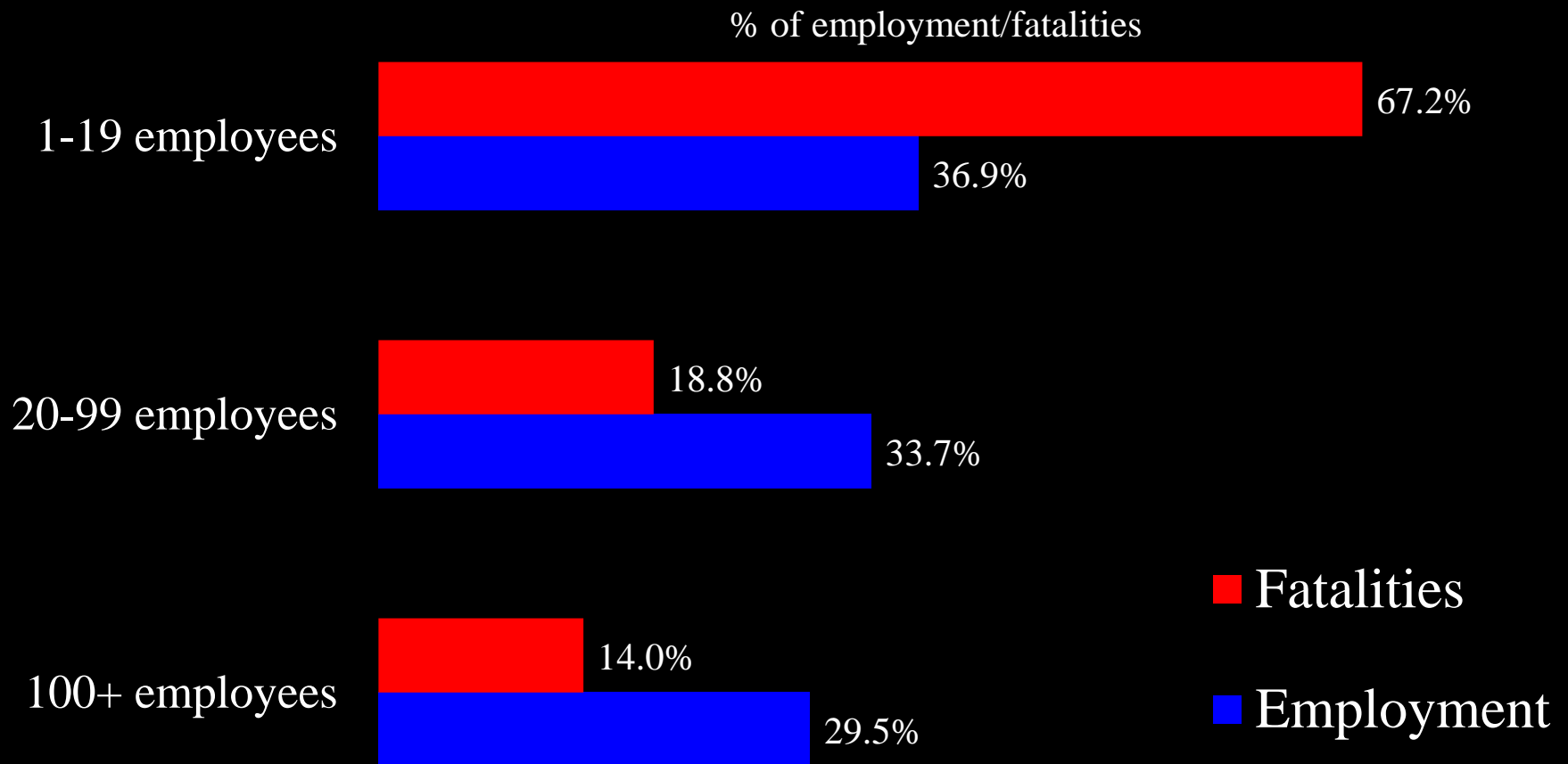
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In 2016, 67% of fatalities among wage-and-salary workers occurred in establishments with <20 employees, while they employed only 37% of wage-and-salary workers in construction.

Number of fatalities in construction, by establishment size, 2003-2016



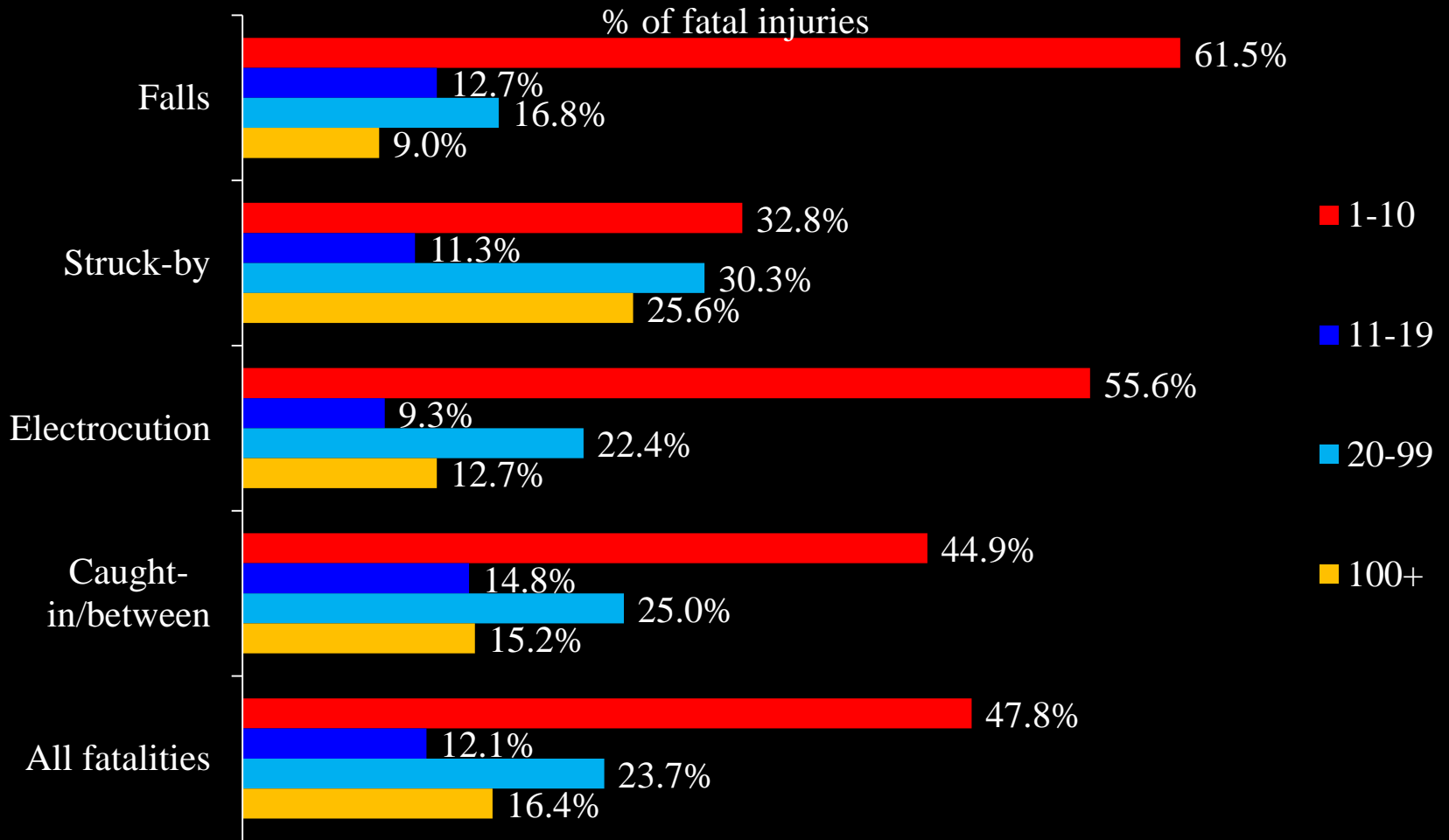
Distribution of construction fatalities and employment, by establishment size, 2016 (Wage-and-salary workers)



Note: Deaths without establishment size information were excluded.

Source: Fatal injury data were generated by the CPWR Data Center with restricted access to BLS CFOI micro data. The views expressed here do not necessarily reflect the views of the BLS. Employment data were from the County Business Patterns. Calculations by the CPWR Data Center.

Fatal injuries in construction, by leading causes and establishment size, sum of 2011-2016 (Wage-and-salary workers)



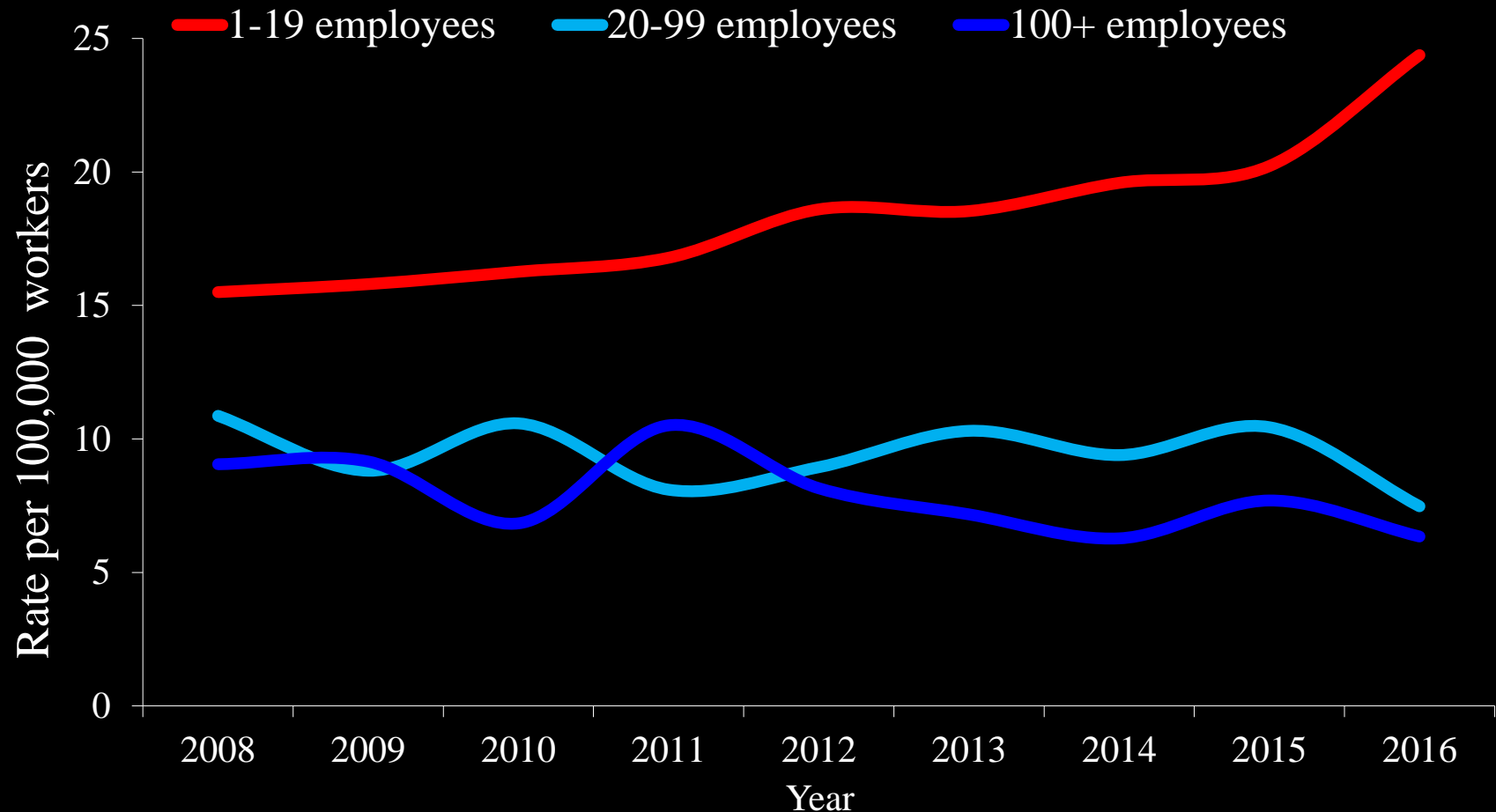
Note: Deaths without establishment size information were excluded.

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From 2008 to 2016, the rate of fatalities for establishments with <20 employees rose 57% to 24.4 per 100,000 wage-and-salary workers, while the rate decreased by 30% among establishments with ≥ 20 employees.

Risks of fatal injuries in construction, by establishment size, 2008-2016 (Wage-and-salary workers)



Note: Around 20% of cases didn't have information on establishment size. Therefore, employment data were adjusted in rates calculation assuming the information was missing at random.

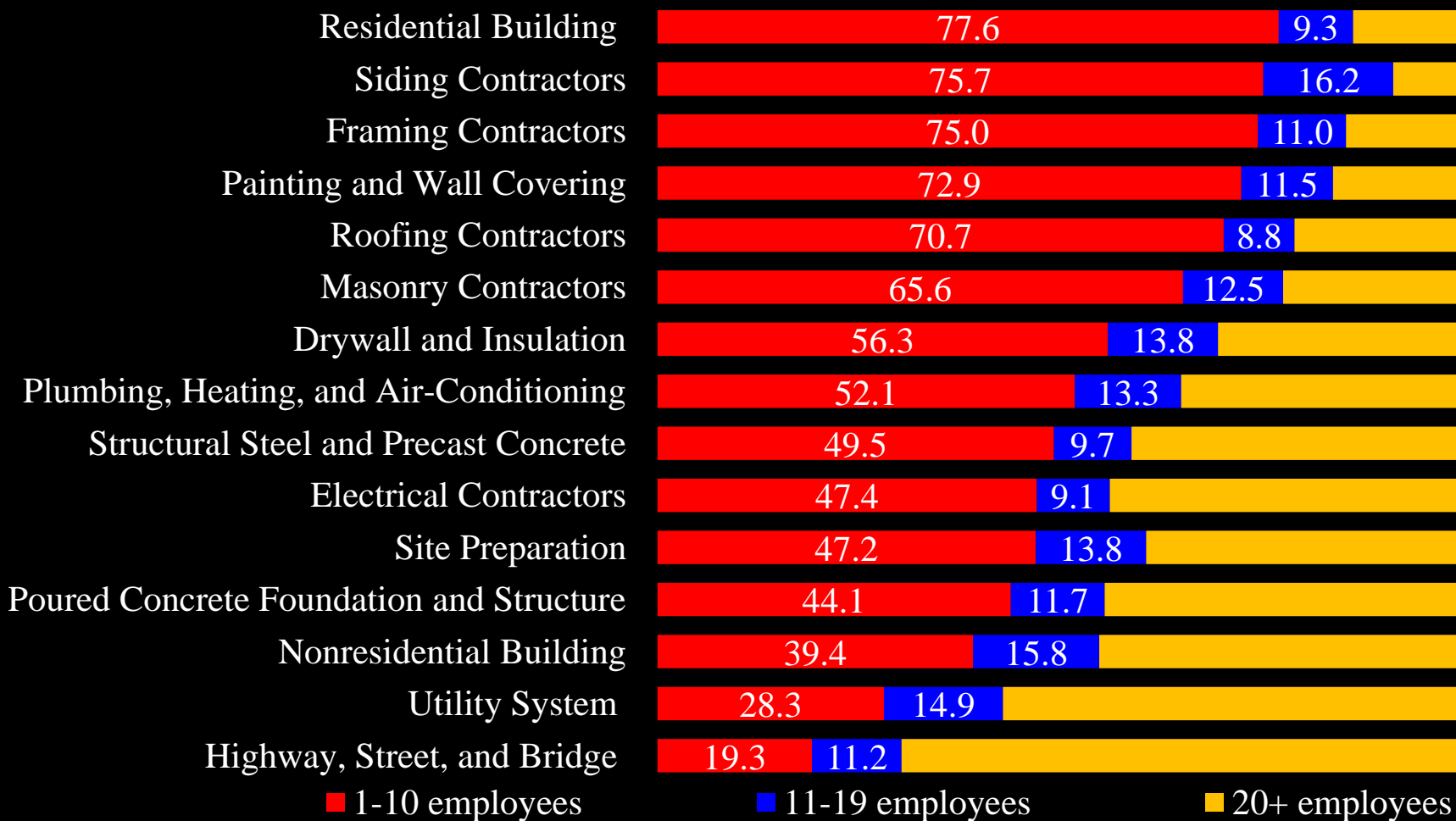
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78% of fatal injuries in the Residential Building subsector occurred at establishments with 1-10 employees.

73% of fatalities among roofers were in establishments with 10 or fewer employees.

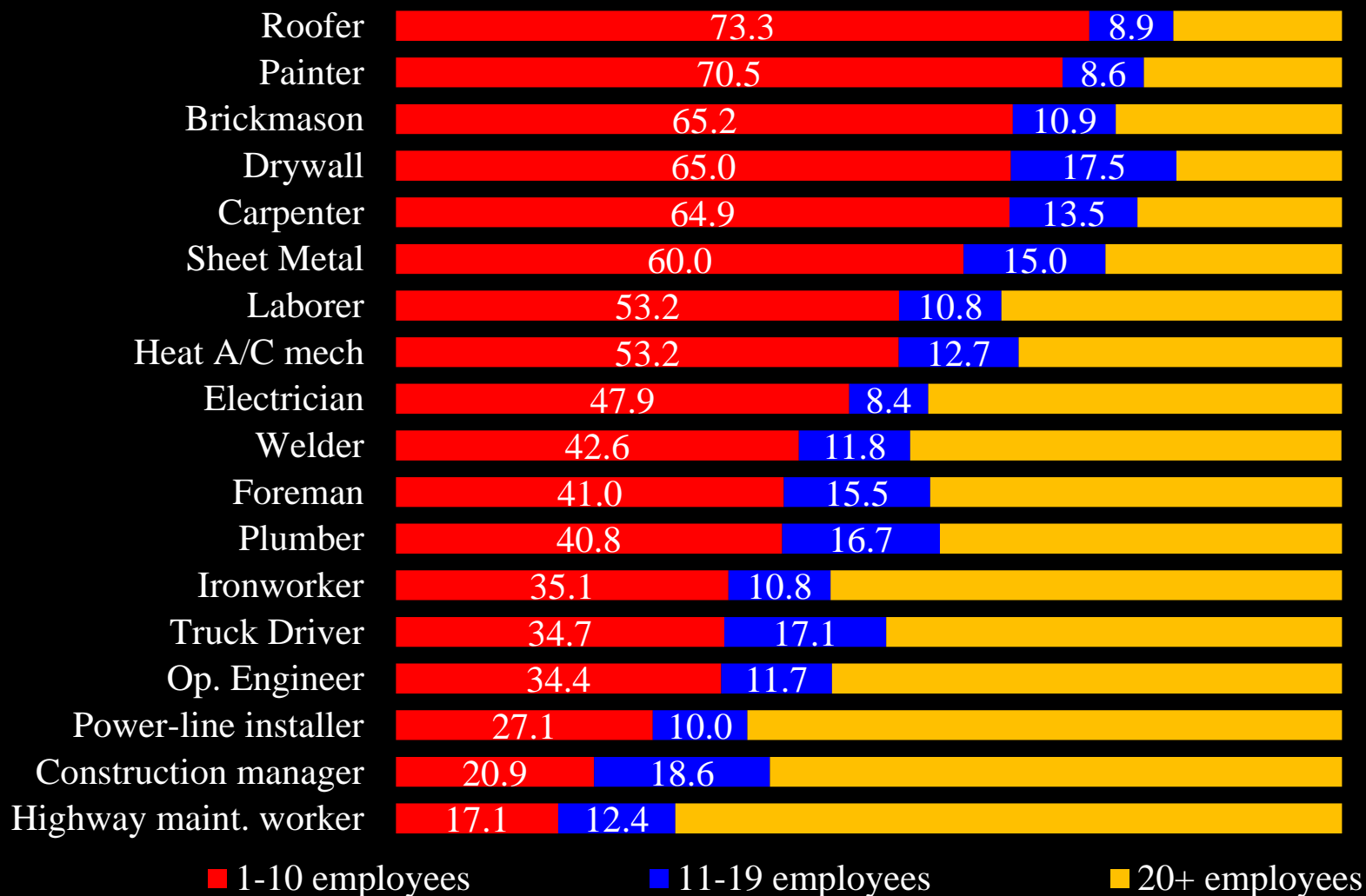
Percentage of fatal injuries among selected construction subsectors, by establishment size, sum of 2011-2016 (Wage-and-salary workers)



Note: Deaths without establishment size information were excluded.

Source: Fatal injury data were generated by the CPWR Data Center with restricted access to BLS CFOI micro data. The views expressed here do not necessarily reflect the views of the BLS.

Percentage of fatal injuries among selected construction occupations, by establishment size, sum of 2011-2016 (Wage-and-salary workers)



Note: Deaths without establishment size information were excluded.

Source: Fatal injury data were generated by the CPWR Data Center with restricted access to BLS CFOI micro data. The views expressed here do not necessarily reflect the views of the BLS.

Closing Question

How might construction alliances with OSHA increase impact on hundreds of thousands of small establishments?

Thank You

Acknowledgements

Sue Dong and her team at the CPWR Data Center

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