

# The Strange and Awful Path of Productivity in the US Construction Sector

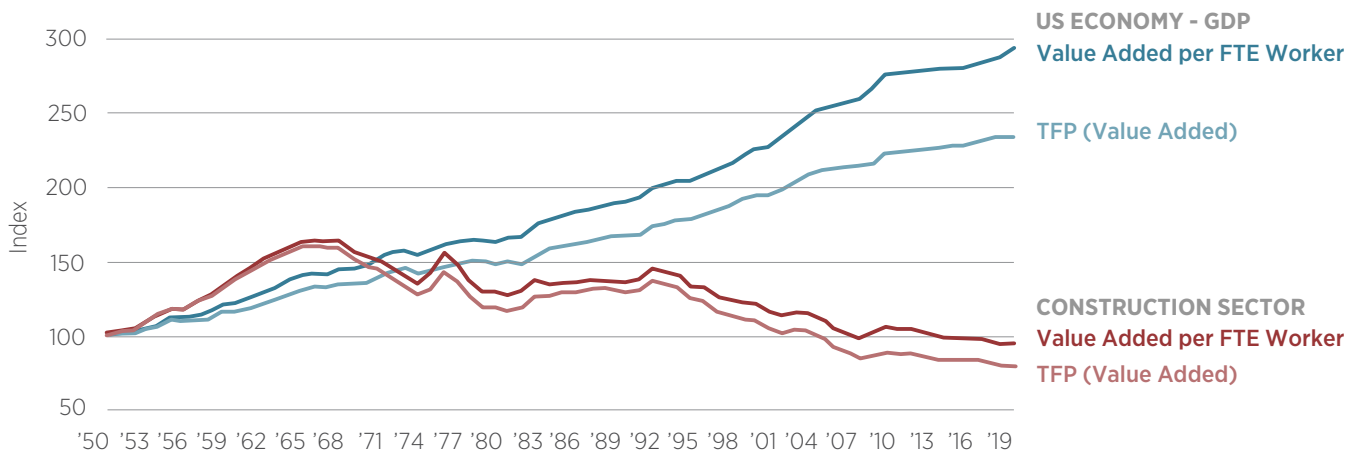
Based on BFI Working Paper 2023-04, [“The Strange and Awful Path of Productivity in the US Construction Sector,”](#) by Austan Goolsbee, Chicago Booth; and Chad Syverson, Chicago Booth

*Measurement error alone cannot explain the decline in US construction productivity over the last 50 years, with evidence pointing to the sector’s deteriorating ability to transform intermediates into finished products, and to the allocative inefficiency of construction inputs.*

Despite aggregate productivity for the US economy having doubled over the past 50 years, the country’s construction sector has diverged considerably, trending downward throughout that period. And this is no slight decrease. Raw BEA data suggest that the value added per worker in the construction sector was about 40 percent lower in 2020 than in 1970 (see Figure 1).

How can a sector like construction, with average value-added of 4.3 percent of GDP between 1950 and 2020, experience such a precipitous decline in productivity relative to the rest of the economy? To answer this question, researchers have focused on issues relating to data measurement, hypothesizing that measurement errors largely explain this phenomenon. This new

**Figure 1 •** Indexes of Value Added Per Full-Time-Equivalent (FTE) Worker and Total Factor Productivity (TFP), Overall US Economy and Construction Sector (BEA Data)



Note: This figure shows indexes of US construction sector labor productivity and total factor productivity (TFP) from 1950 to 2020. For comparison, it also plots the same indexes for the overall economy. Throughout the 1950s and well into the 1960s, both measures of construction sector productivity grew steadily. Indeed, they outpaced their whole-economy counterparts during that period. By 1970, however, the construction sector’s labor productivity and TFP had both begun to fall. This downturn was not temporary; the decline has continued for the past half-century.

research updates some of those efforts and, importantly, extends them to investigate other hypotheses to find the following:

- Using measures of physical productivity in housing construction (i.e., number of houses or total square footage built per employee), the authors confirm that productivity is indeed falling or, at best, stagnant over multiple decades. Importantly, these facts are not explained by the incidence of price measurement problems.
- Instead of data error, the authors investigate two other possible explanations. First, they find that the construction sector's ability to transform intermediate goods into finished products has deteriorated.
- And second, the authors describe the curious fact that producers located in more-productive areas do not grow at expected rates. Indeed, rather than construction inputs flowing to areas where they are more productive, the activity share of these areas either stagnates or even falls. The authors suggest that this problem with allocative efficiency may accentuate the aggregate productivity problem for the industry.

**Bottom line:** The productivity struggle within the construction sector is real, and not a result of measurement error. Given its place in the economy, this productivity decline has real effects: Had construction labor productivity grown over the last five decades at the (relatively modest) rate of 1 percent per year, annual aggregate labor productivity growth would have been roughly 0.18 percent higher, resulting in about 10 percent higher aggregate labor productivity (and, plausibly, income per capita) today.

## READ THE WORKING PAPER

NO. 2023-04 · JANUARY 2023

### **The Strange and Awful Path of Productivity in the US Construction Sector**

[bfi.uchicago.edu/working-paper/2023-04](https://bfi.uchicago.edu/working-paper/2023-04)

## ABOUT OUR SCHOLARS



### **Austan Goolsbee**

*Robert P. Gwinn Professor of Economics, Chicago Booth*

[chicagobooth.edu/faculty/directory/g/austan-d-goolsbee](https://chicagobooth.edu/faculty/directory/g/austan-d-goolsbee)



### **Chad Syverson**

*George C. Tiao Distinguished Service Professor in Economics, Chicago Booth*

[chicagobooth.edu/faculty/directory/s/chad-syverson](https://chicagobooth.edu/faculty/directory/s/chad-syverson)



The University of Chicago Booth School of Business