



The Fastest-Dying Jobs of This Generation (and What Replaced Them)

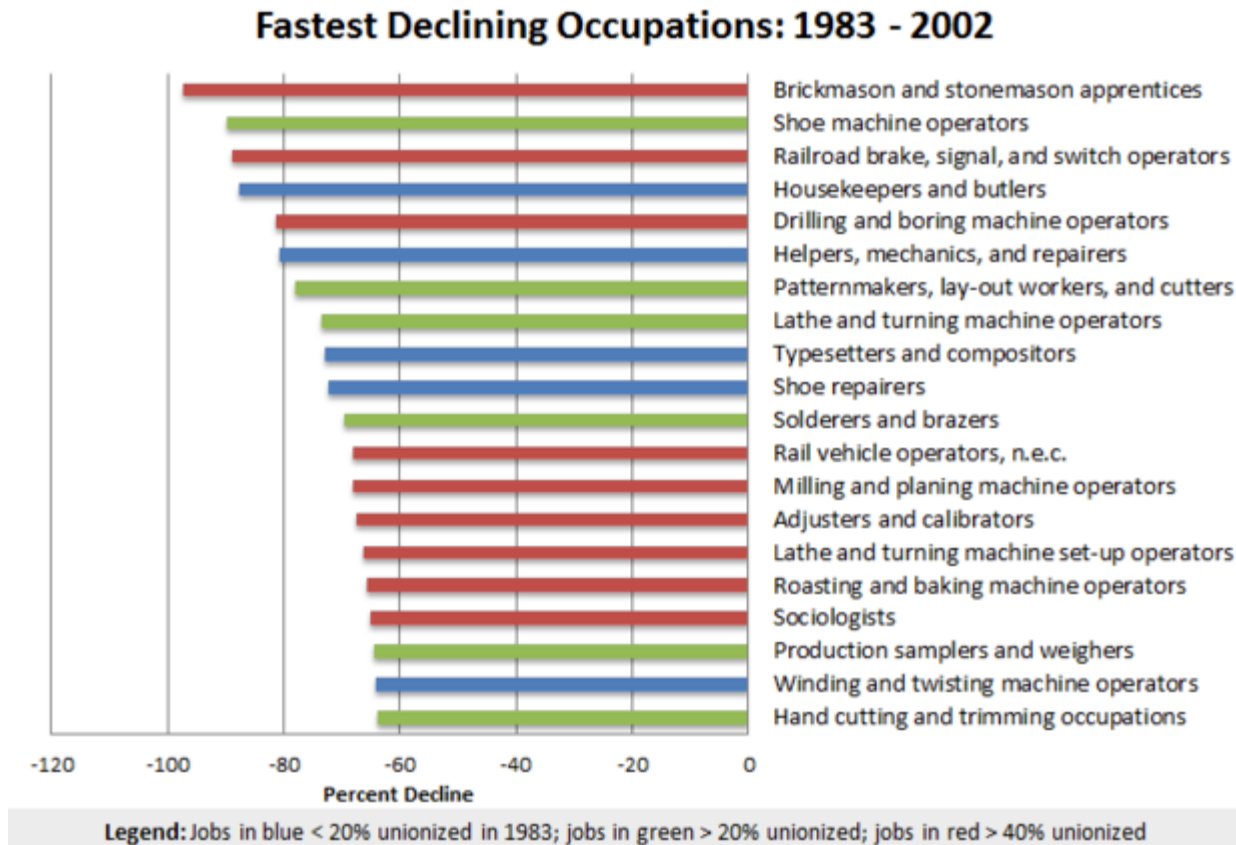
By Jordan Weissmann

In the late twentieth century, America underwent its big switch -- the transformation from a broadly middle class, manufacturing-based economy, to a financially polarized, services-based economy. Union rolls plummeted as Wall Streets profits surged, and the demand for factory workers were supplanted by the need for healthcare professionals, teachers, and computer engineers.

This is a narrative that, by now, is probably familiar to you. But it's also abstract.

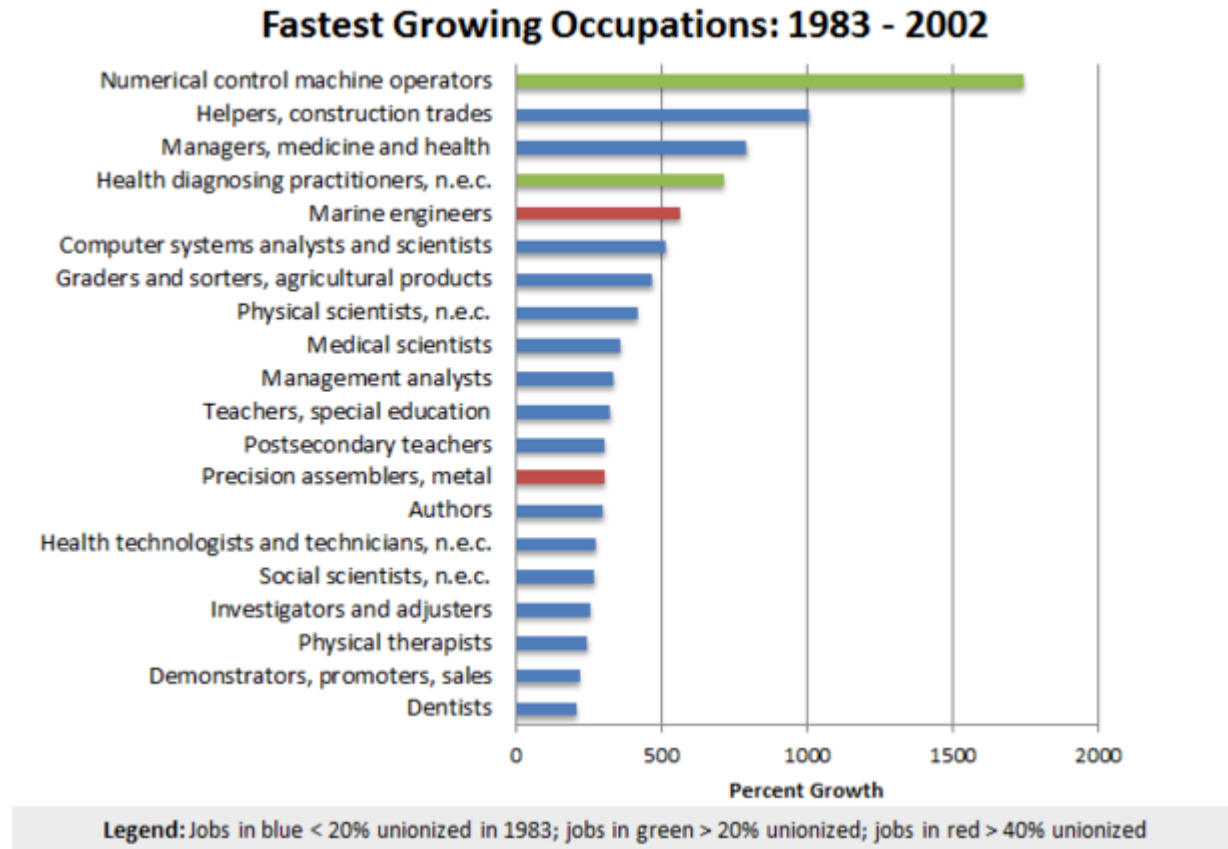
The two graphs below, adapted from a [new working paper](#) by University of Pennsylvania economist Jeremy Greenwood and the Census Bureau's Emin Dinlersoz on the rise and

fall of U.S. labor unions, tell the tale more concretely. They track the fastest-declining and fastest-growing occupations between 1983 and 2002. I've organized them by color. Occupations that were less than 20 percent unionized are in BLUE; between 20 and 40 percent unionized are in GREEN; and more than 40 percent unionized are in RED.



In roughly 20 years, entire categories of factory work nearly disappeared. If your job hinged on your aptitude with a shoe machine, it was in danger. Likewise if you worked a lathe every day for a living, or had a spot anywhere else on a classic production line, where dozens of hands handled simple, discreet tasks. (How sociologists ended up on this list, I'm frankly not sure.) These were jobs that, thanks to their heavy levels of unionization,

paid a good middle class wage to employees without many skills. And when manufacturing technology improved, they became redundant.



Of the fastest-growing occupations, the winner, by a long shot, was numerical control machine operators -- the men and women who program and run factory machinery. Specialized knowledge replaced a steady hand and strong back. But nearly all of the other fast-expanding job categories required even higher levels of education, and few had high union membership.

Improved technology isn't the only explanation for America's big switch away from an economy that favored a highly unionized, low-skill workforce. The late twentieth century

saw the mass migration of manufacturing to Asia, which led to the disappearance of certain industries stateside and forced many factories to slim down and automate their operations to keep pace with their new international competition. But Greenwood and Dinlersoz add evidence to the argument that technology was indeed the leading factor. The pair compared sectors based on how fast the price of new equipment and software fell over their time frame, assessing 61 industries in all. When technology becomes cheaper, it's a sign more companies are buying it, and that they should theoretically need more educated workers to operate it. Sure enough, in industries where the price of new software and equipment dropped more, skilled workers increased compared to unskilled labor, while union membership dwindled.

But why would skilled workers shun unions? That's still an open question. Because unions tend to raise wages on the whole by flattening them across the board, some economists argue that talented employees don't have an incentive to join, because they might be able to make more negotiating on their own. In that vein, Greenwood and Dinlersoz also point out that unions are best at representing homogeneous groups of workers, whereas skilled employees tend to be specialized. That won't explain the low levels of unionization at the bottom rungs of the service economy, amid fast food workers and retail, but it may explain some of the profound changes we've seen in the labor market over the past few decades.

This article available online at:

<http://www.theatlantic.com/business/archive/2012/05/the-fastest-dying-jobs-of-this-generation-and-what-replaced-them/257154/>

Copyright © 2012 by The Atlantic Monthly Group. All Rights Reserved.