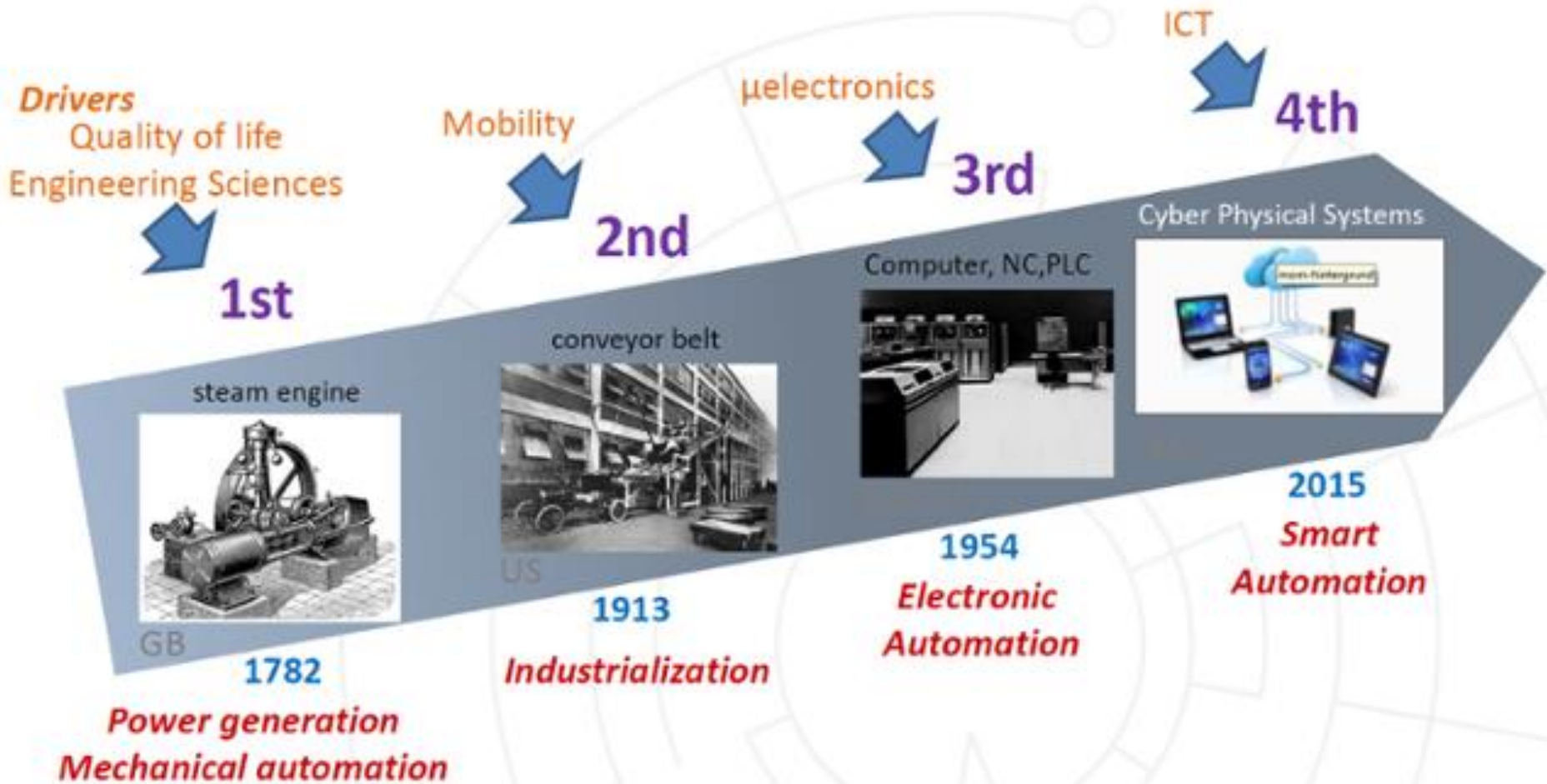


The influence of Artificial Intelligence on job market



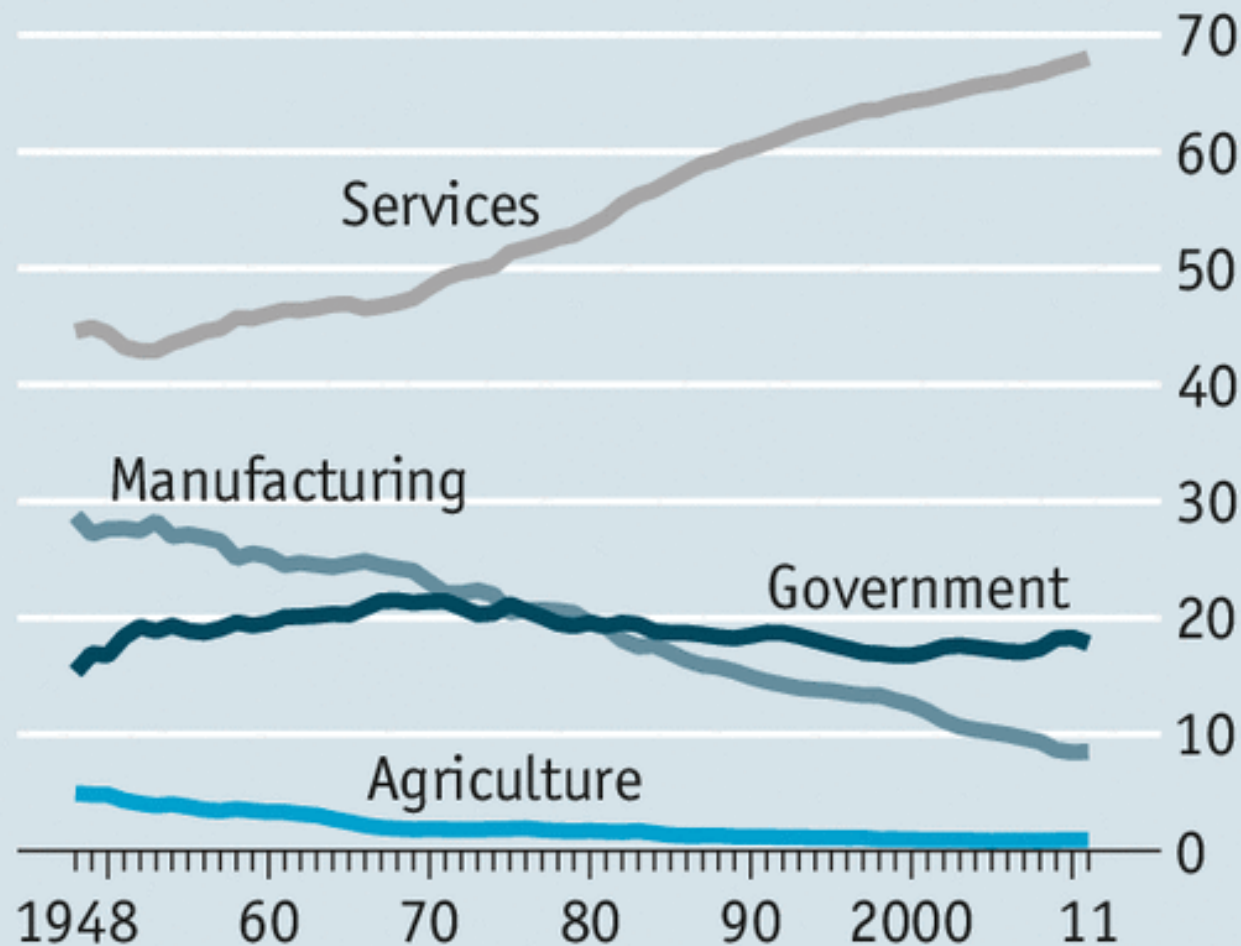
KAIST
바이오및뇌공학과
정재승

The 4th Industrial Revolution - „Industry 4.0“



Not what it was

US employment by sector, % of total employment

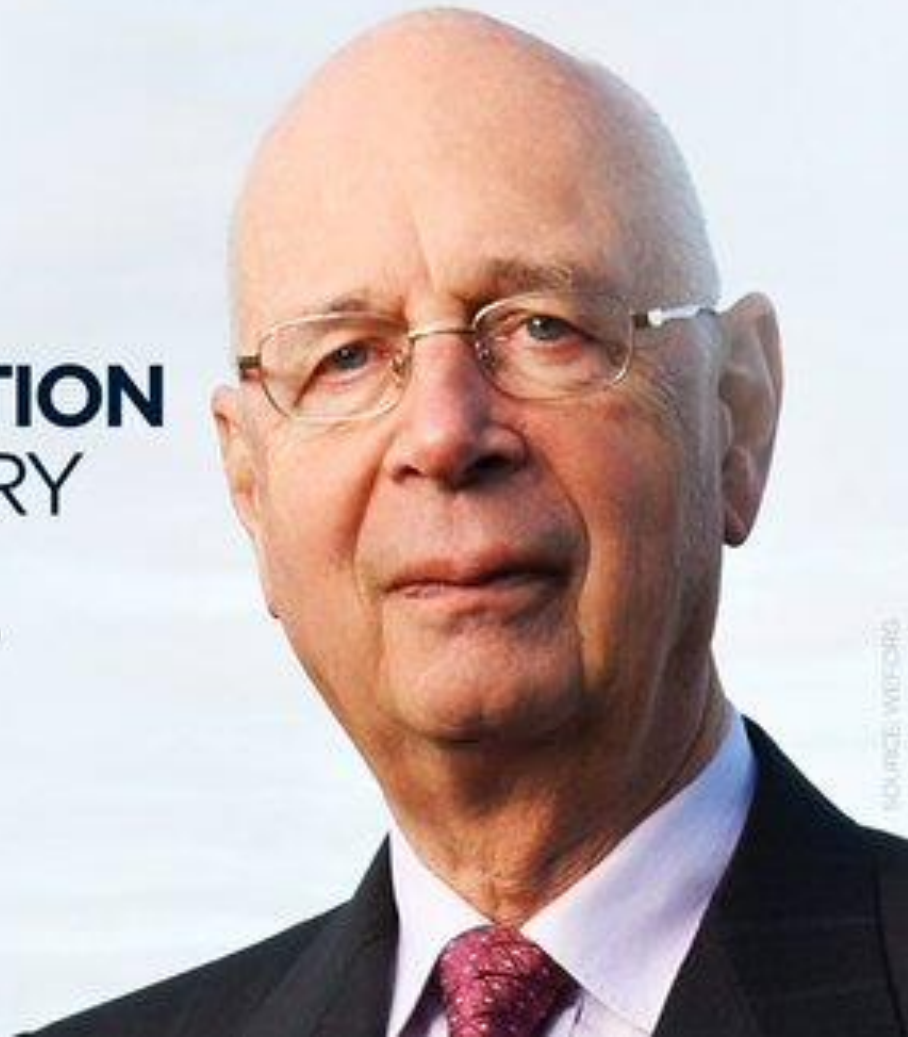


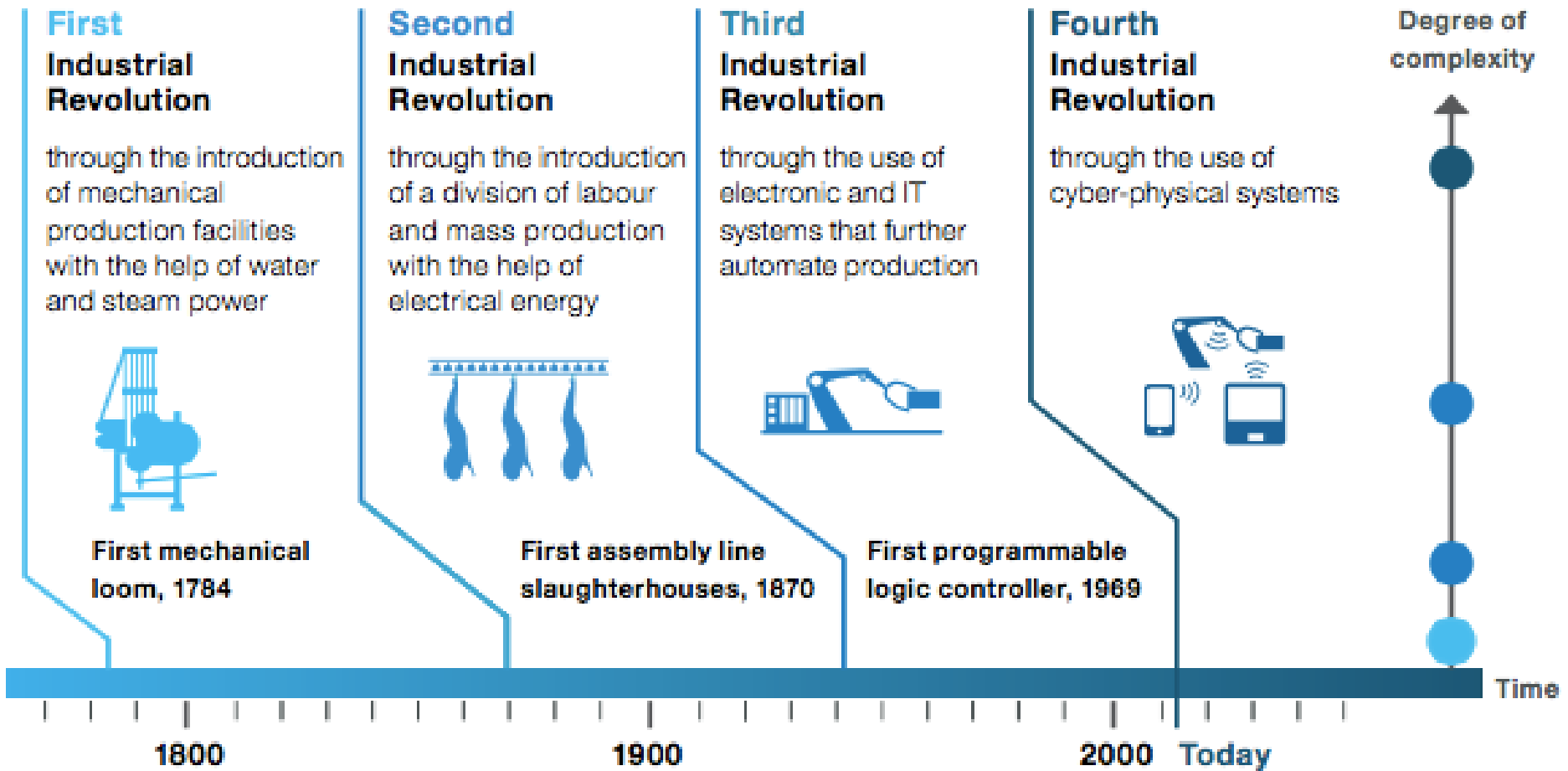
Source: US Bureau of Labour Statistics

“
**THE FOURTH
INDUSTRIAL REVOLUTION**
WILL AFFECT THE VERY
ESSENCE OF OUR
HUMAN EXPERIENCE.”

KLAUS SCHWAB

FOUNDER & EXECUTIVE CHAIRMAN,
WORLD ECONOMIC FORUM



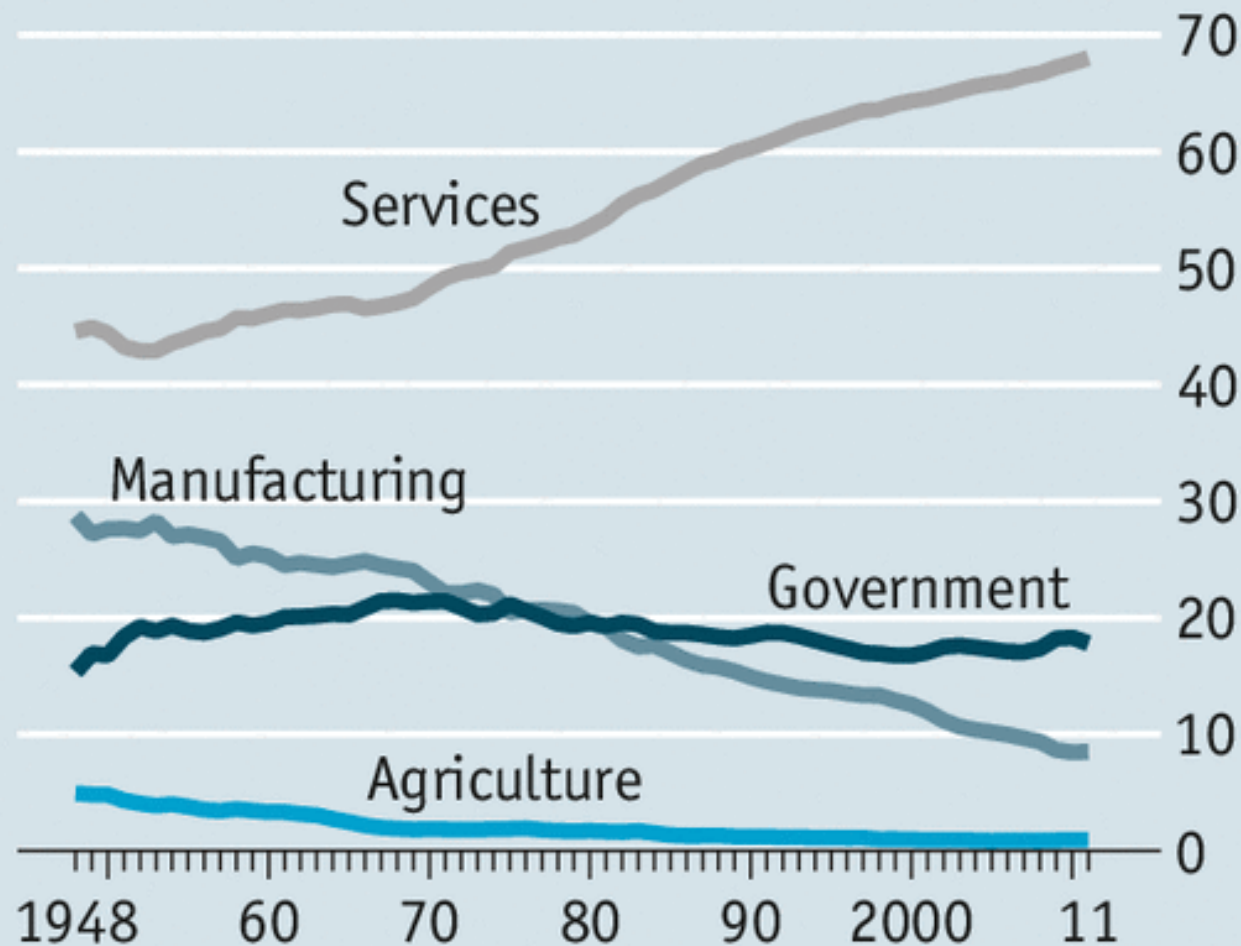


Cyber-physical assistance systems are driving the fourth industrial revolution

Source: Siemens, Pictures of the Future, Spring 2013

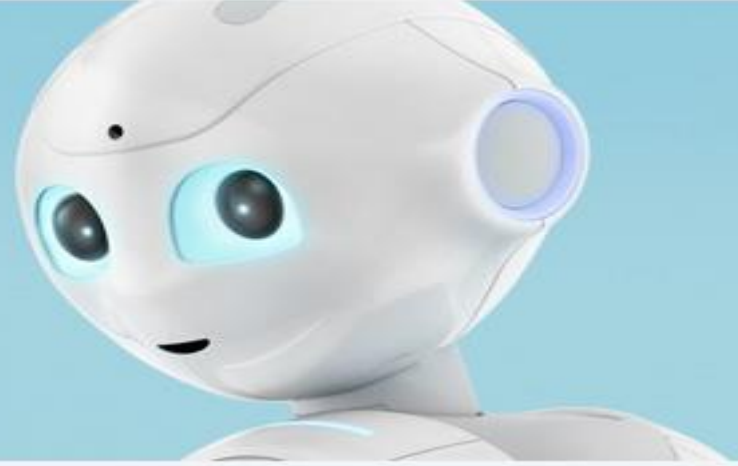
Not what it was

US employment by sector, % of total employment



Source: US Bureau of Labour Statistics

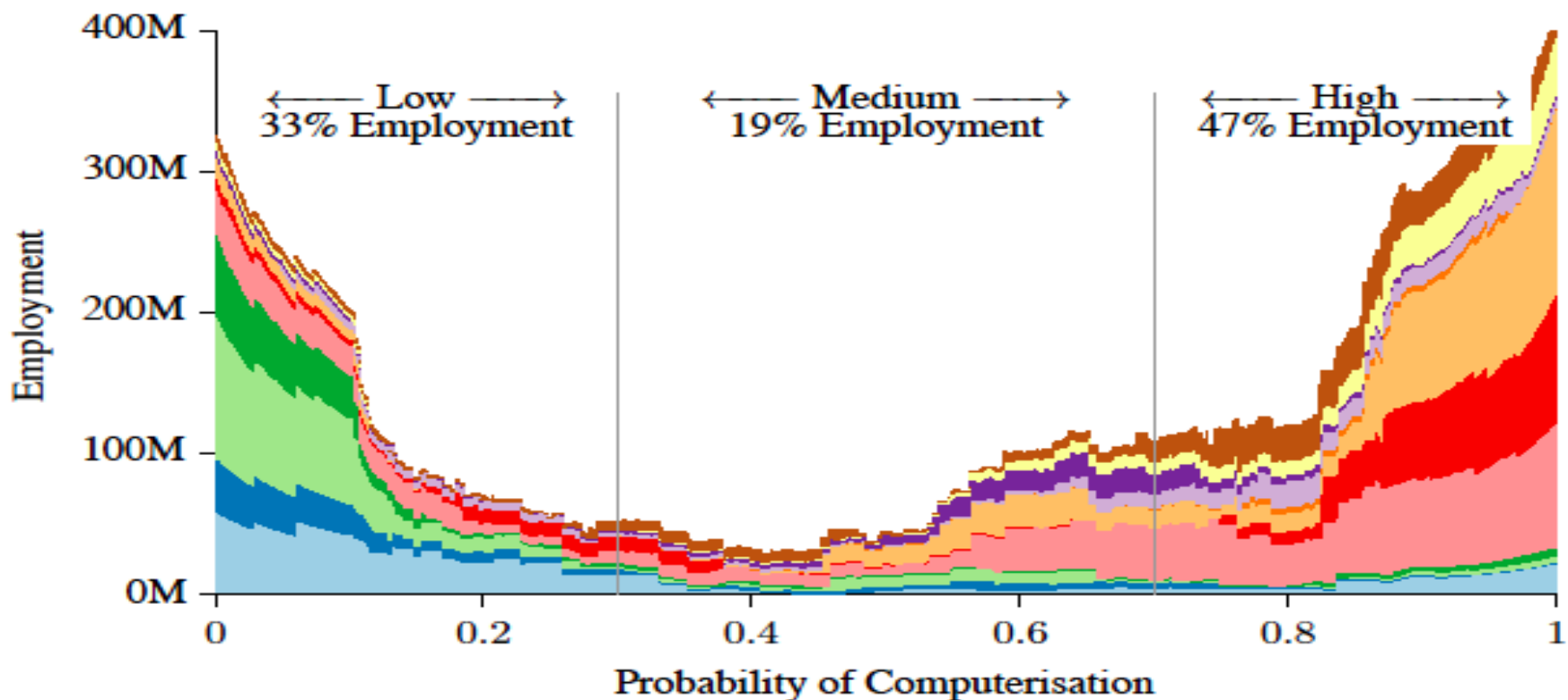
pepper

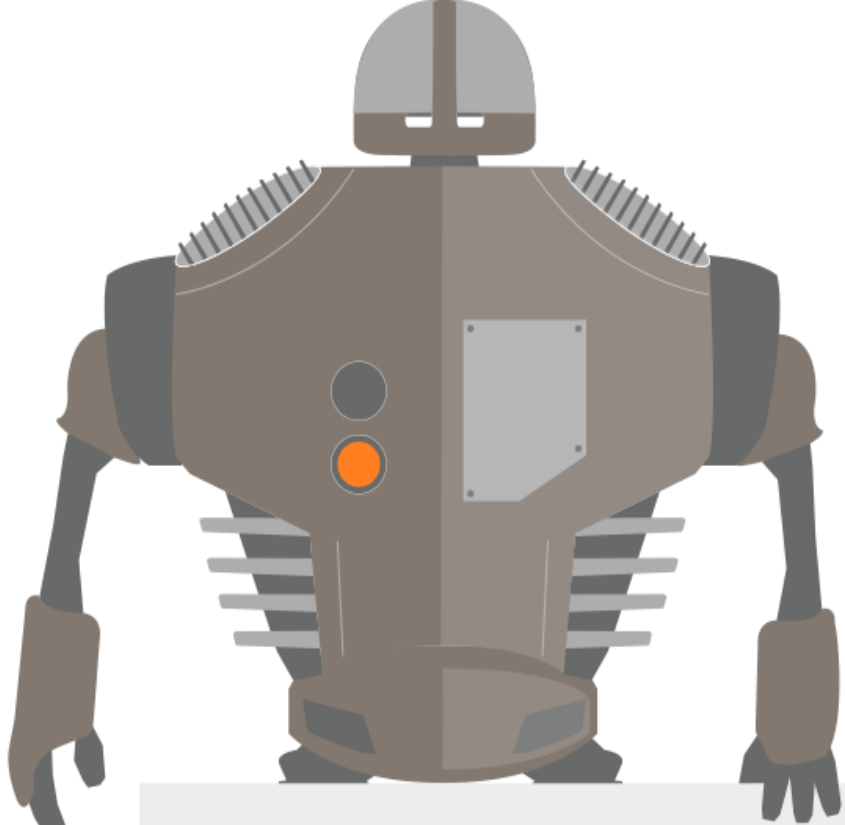


Japanese only.



- Management, Business, and Financial
- Computer, Engineering, and Science
- Education, Legal, Community Service, Arts, and Media
- Healthcare Practitioners and Technical
- Service
- Sales and Related
- Office and Administrative Support
- Farming, Fishing, and Forestry
- Construction and Extraction
- Installation, Maintenance, and Repair
- Production
- Transportation and Material Moving





Does your job mainly require you to:

Squeeze into small spaces?

Assemble objects?

Manipulate small objects?

✗ Your job is at higher risk of automation

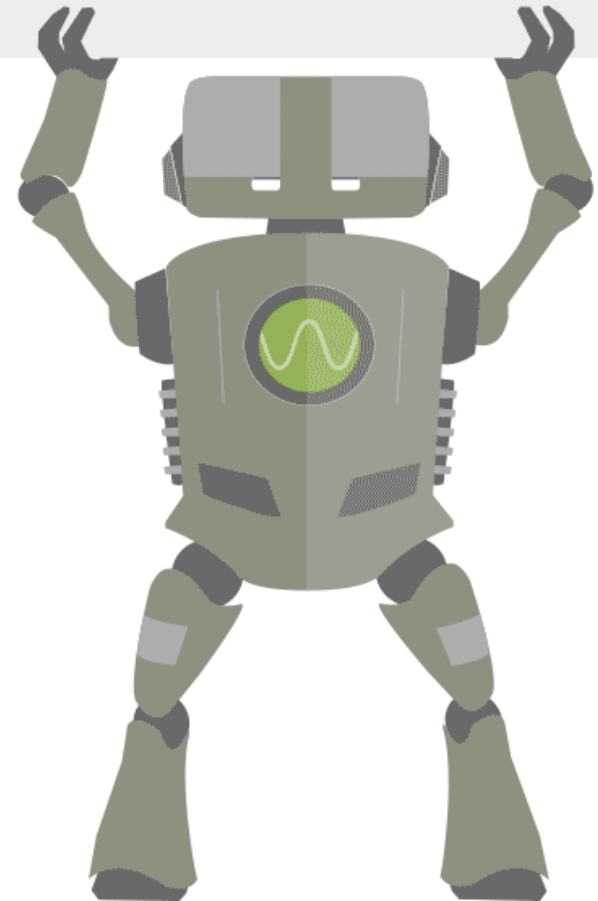
At work, do you need to:

Negotiate?

Help and assist others?

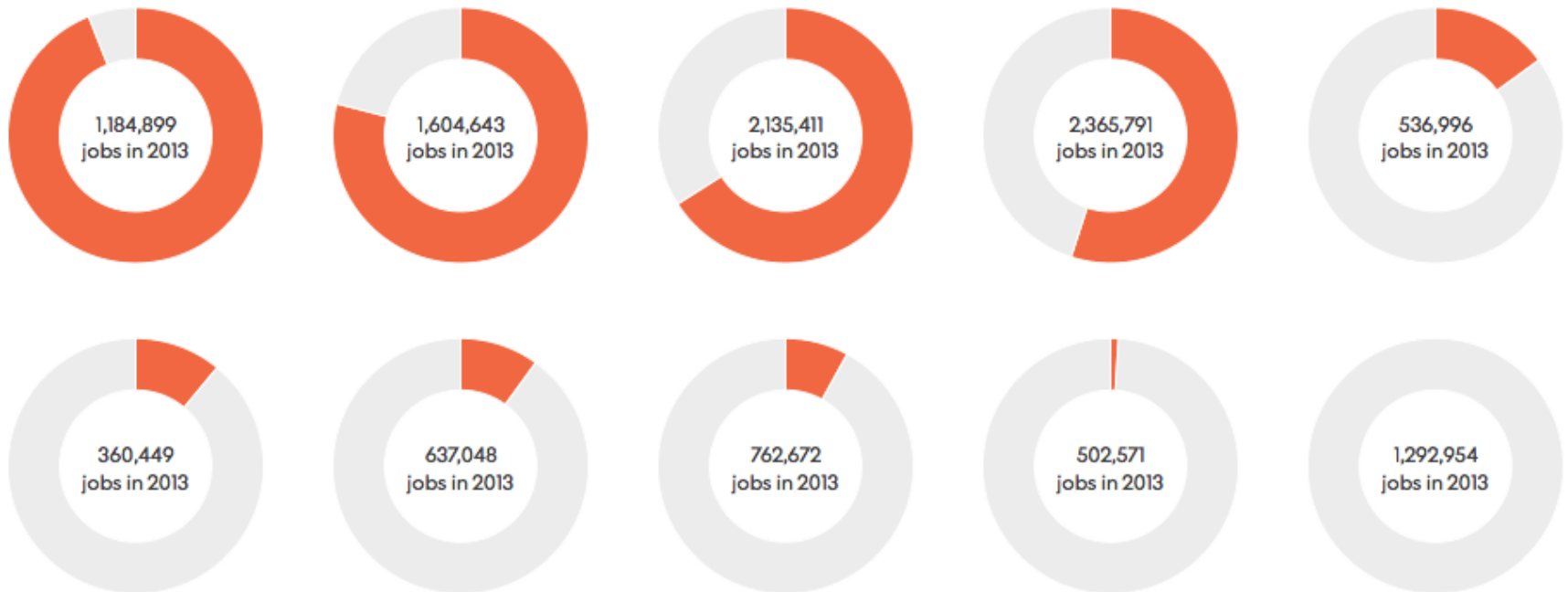
Come up with original ideas?

✓ Your job is safer from automation



JOBS LIKELY TO BE AUTOMATED

Jobs that are repetitive and don't require a lot of creativity or contact, have a higher probability of being automated in 10 to 20 years than others, according to Oxford University researchers Carl Benedikt Frey and Michael A. Osborne.

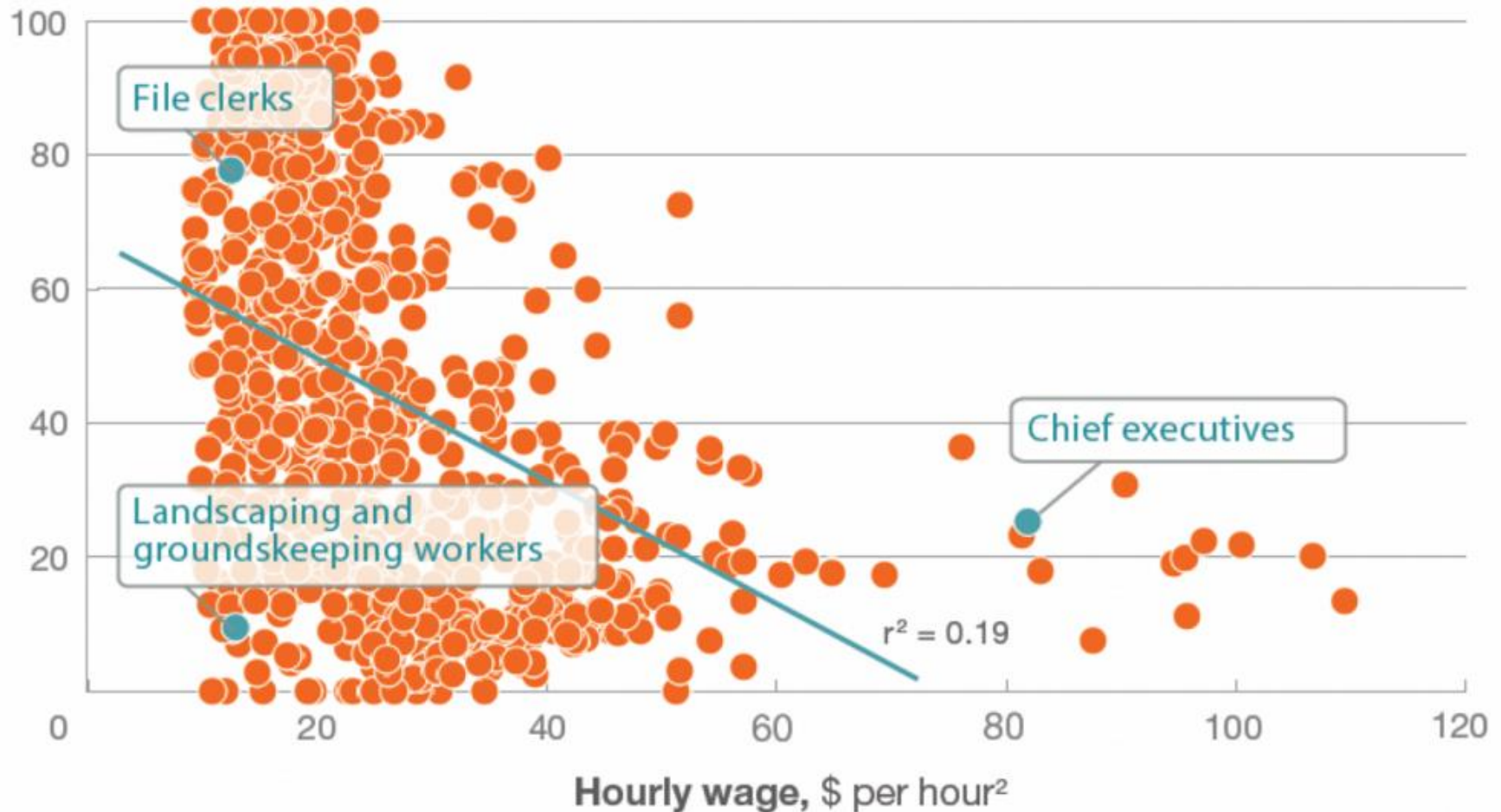


Source: USA TODAY analysis of Frey and Osborne data. Credit: Kate Van Winkle and MaryJo Webster, USA TODAY

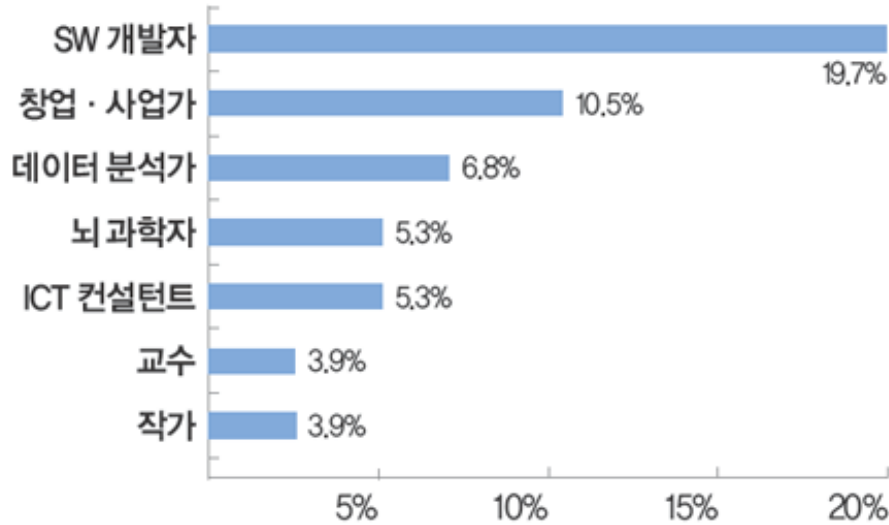
The hourly-wage rate alone is not a strong predictor of automatability, despite some correlation between the two.

Comparison of wages and automation potential for US jobs

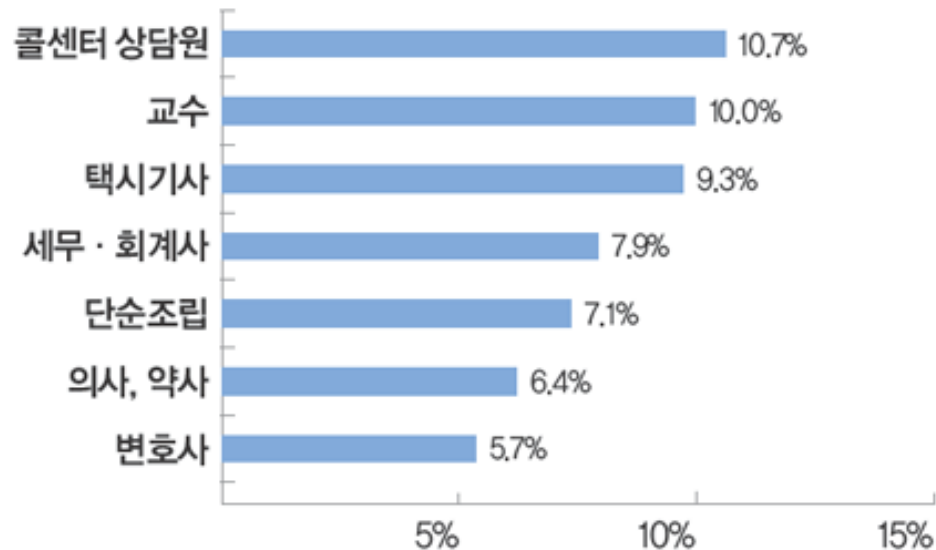
Ability to automate, % of time spent on activities¹ that can be automated by adapting currently demonstrated technology



◆ 지금 20세라면 택할 직업(복수응답)



◆ 10년 안에 추락할 직업(복수응답)



ARTIFICIAL INTELLIGENCE FOR BUSINESS

03 Learning to live with robots

Artificial intelligence is sparking your curiosity about what will help business succeed and thrive today.



08 Building a business case for AI

Learn how to build a business case for AI by comparing work to current activities.

10 Putting AI power to work

Present artificial intelligence in a clear, simple and repeatable format.

15 Virtual Agents to organize our lives

Use of personal assistants on a mobile device to help business professionals.



Putting the Intelligence into real-time marketing!

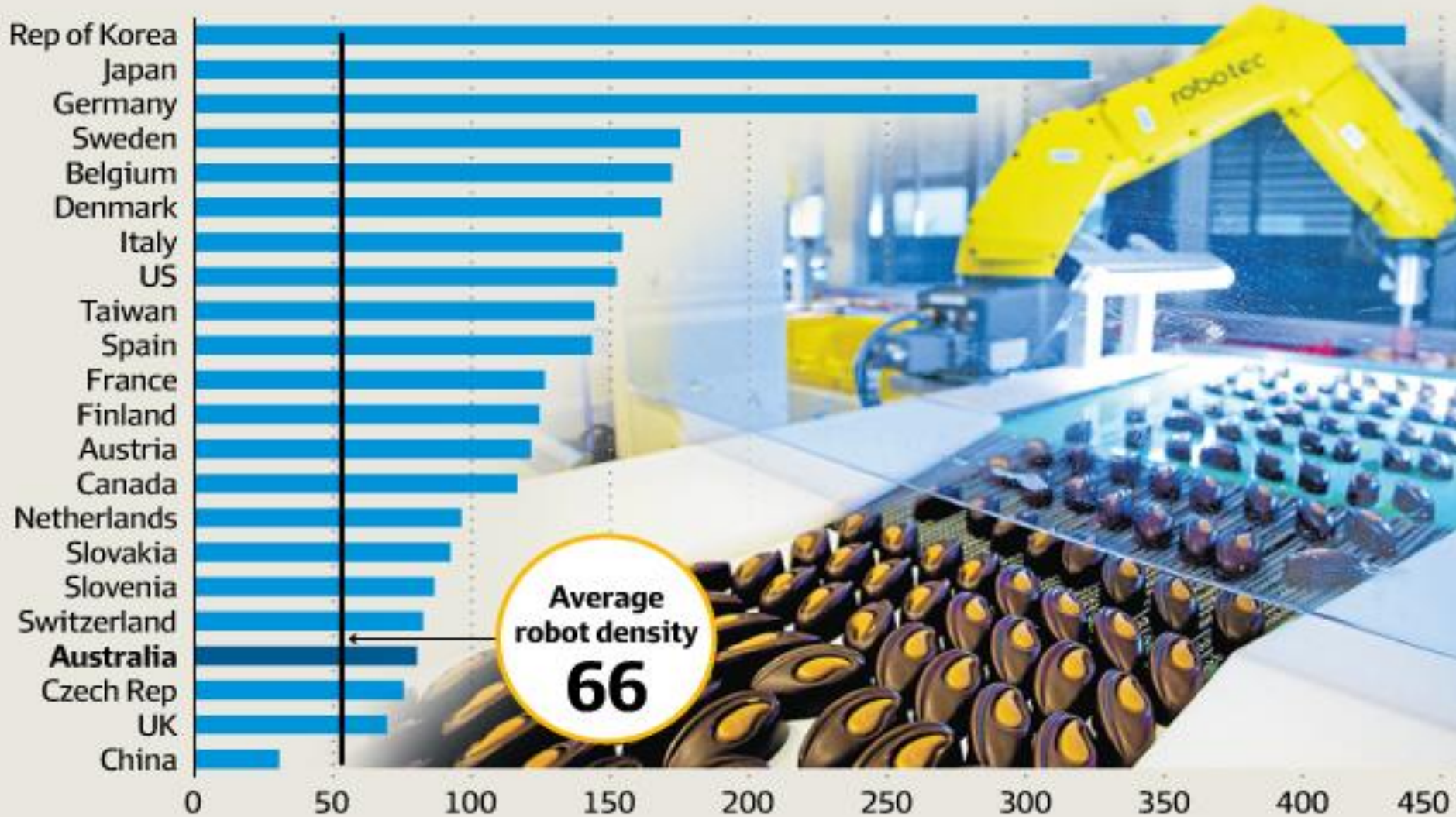
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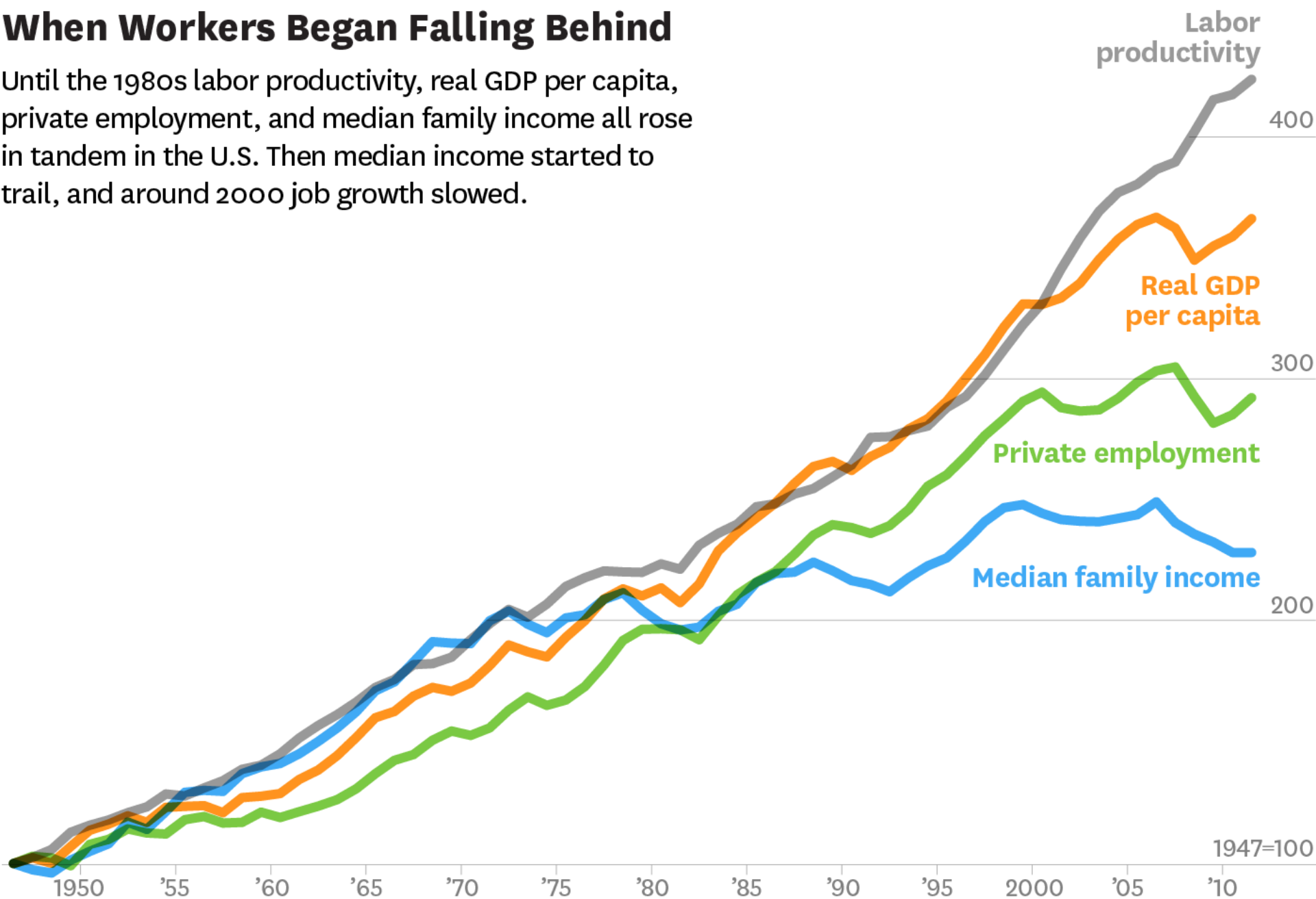
Automatic job losses

Number of multipurpose industrial robots (all types) per 10,000 employees in the manufacturing industry - 2014



When Workers Began Falling Behind

Until the 1980s labor productivity, real GDP per capita, private employment, and median family income all rose in tandem in the U.S. Then median income started to trail, and around 2000 job growth slowed.



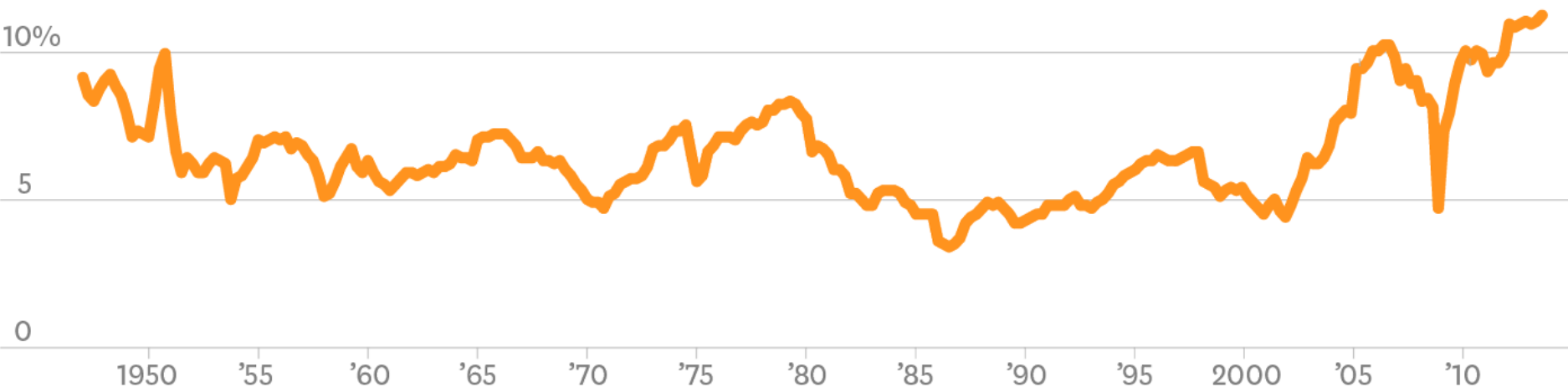
SOURCE FEDERAL RESERVE BANK OF ST. LOUIS; ERIK BRYNJOLFSSON AND ANDREW MCAFEE
FROM "THE GREAT DECOUPLING," JUNE 2015

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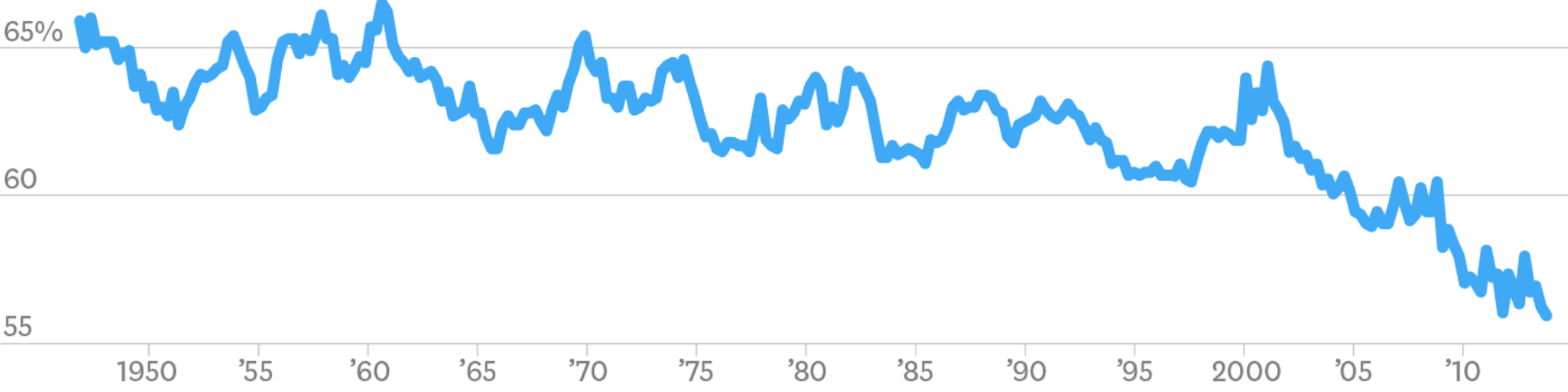
As Profits Climb, Wages Plummet

In the U.S., corporate profits were rising before the 2008 recession and quickly recovered from it. In contrast, labor's share of GDP, which was healthy for many decades, has fallen sharply since 2000.

CORPORATE PROFITS AS A PERCENTAGE OF GDP



WAGES AS A PERCENTAGE OF GDP



SOURCE FEDERAL RESERVE BANK OF ST. LOUIS; ERIK BRYNJOLFSSON AND ANDREW MCAFEE
FROM "THE GREAT DECOUPLING," JUNE 2015