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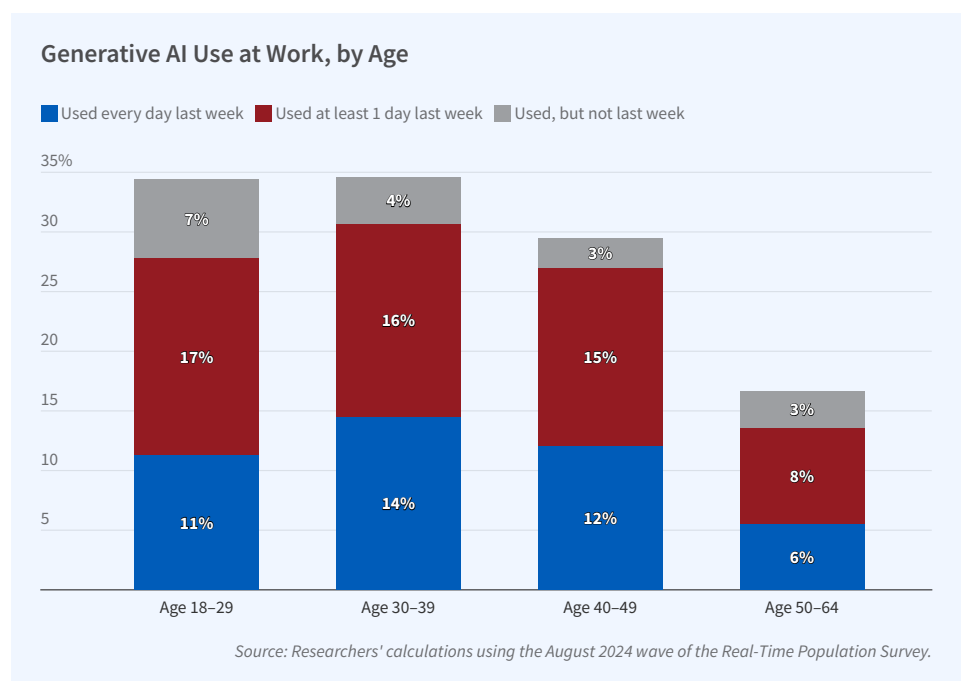
Workplace Adoption of Generative AI

Generative artificial intelligence (AI) has recently emerged as a potentially transformative workplace technology. The ultimate impact of generative AI on the economy will depend on how many workers adopt the technology, how intensively they use it, and for which tasks. In [The Rapid Adoption of Generative AI](#) (NBER Working Paper 32966), researchers [Alexander Bick](#), [Adam Blandin](#), and [David J. Deming](#) report on a nationally representative US survey of generative AI adoption at work and at home.

Using the Real-Time Population Survey, which mirrors the methodology of the Current Population Survey, the researchers surveyed over 5,000 Americans aged 18–64 in August 2024. They defined generative AI as “a type of artificial intelligence that creates text, images, audio, or video in response to prompts,” citing examples like ChatGPT, Google Gemini, and Midjourney.

The researchers found that 39.4 percent of respondents had used generative AI. Among employed respondents, 28 percent reported using generative AI for their job, with 24.2 percent using it at least one day in the previous week, and 10.6 percent using it every workday in the previous week. Outside of work, 32.7 percent used generative AI, with 25.9 percent using it at least one day in the previous week and 6.4 percent using it every day in the previous week. The most commonly used product was ChatGPT (28 percent) followed by Google Gemini (16 percent).

How do these adoption rates compare with those of previous technological advances? Two years after the release of ChatGPT, the first mass-market generative AI product,



overall adoption rates were nearly double those of personal computers (PCs) three years after the release of the IBM PC in 1981. They are also higher than internet adoption rates at a similar stage. However, workplace adoption rates for AI (28 percent in two years) are similar to those for PCs (25 percent in three years), highlighting at-home use as a key contributor to faster overall adoption.

Men were 9 percentage points more likely than women to use generative AI at work, reversing trends of early PC adoption. Workplace usage declined with age, from about 34 percent for workers under 40 to 17 percent for those 50 and older. Educational attainment was correlated with adoption, as about 40 percent of workers with a bachelor's degree or higher were

adopters who used generative AI at work, compared to 20 percent of those without a college degree. Adoption was highest in computer/mathematical (49.6 percent) and management (49 percent) occupations, but even 22.1 percent of workers in blue-collar jobs reported using generative AI at work.

How intensively is generative AI used, and for what tasks? On days that employed respondents used generative AI for work, 23 percent used it for less than 15 minutes, 52 percent used it for between 15 minutes and one hour, and 25 percent used it for more than an hour. The most common applications of generative AI at work were to help with writing, searching for information, and obtaining detailed instructions.

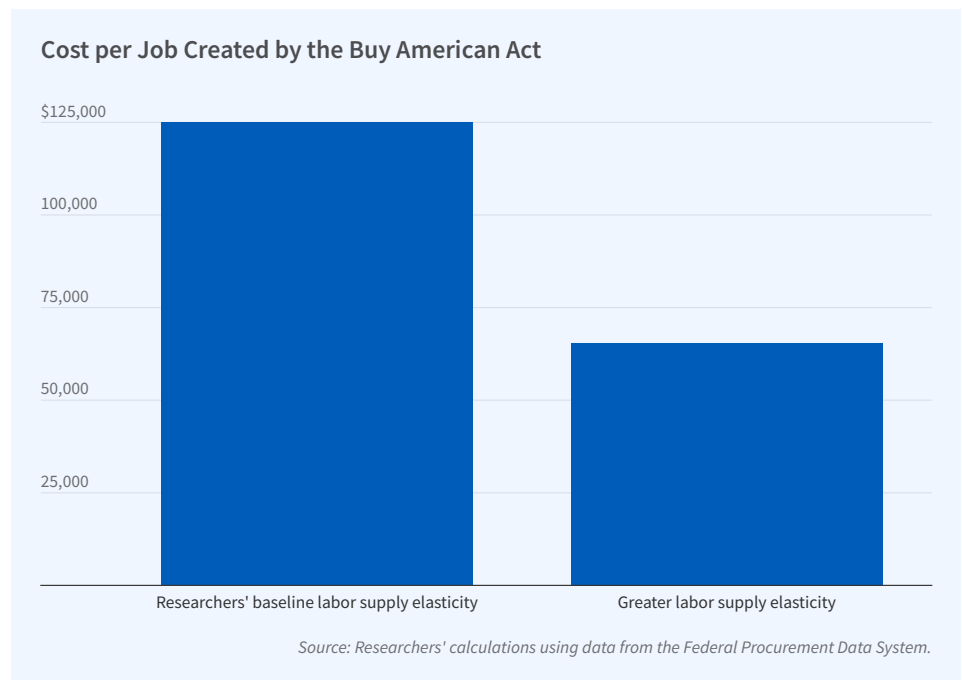
— Leonardo Vasquez

Employment Effects of the Buy American Act

The Buy American Act (BAA) was enacted in 1933 to support US industries and their workers. It specifies that federal agencies and contractors working for these agencies must purchase domestically produced products rather than similar imports, and that at least 50 percent of the total cost of components for the product must have been sourced to US suppliers. Changes enacted by Presidents Trump and Biden are scheduled to raise the domestic component to 75 percent of the total cost by 2029.

The central tension in the BAA, as in related domestic-content provisions in other legislation such as the 2021 Bipartisan Infrastructure Investment and Jobs Act, is between the protection of American jobs and higher prices for the government and ultimately taxpayers. In [The Increasing Cost of Buying American](#) (NBER Working Paper 32953), [Matilde Bombardini](#), [Andres Gonzalez-Lira](#), [Bingjing Li](#), and [Chiara Motta](#) analyze data from the Federal Procurement Data System, which includes information on all federal contracts, to estimate how much the BAA inflates the cost of federal purchases and how it contributes to employment. Federal agencies can request waivers of BAA provisions under some circumstances, for example, when domestic suppliers are unable to meet federal demands or when prices charged by domestic producers appear to be unreasonably high, and they may also purchase from foreign suppliers when products will not be used in the US.

The researchers focus on the manufacturing sector over the period 2001–19, for which their dataset includes more than 32 million contract-year observations and more



The Buy American Act raised US manufacturing employment by about 100,000 workers at a cost of more than \$110,000 per job.

than 600,000 vendors. Aircraft manufacturing, shipbuilding and repairing, and guided missile/space vehicle manufacturing top the list of detailed industries that receive federal procurement dollars.

Within narrowly defined industries, the researchers compare the share of imports in purchases by the federal government and the rest of the economy. They interpret this difference as a measure of the constraint the BAA imposes on federal purchases. In more than 80 percent of industries, the import penetration ratio is one-tenth as large for government purchases as for private sector purchases.

The researchers estimate that removing current BAA provisions would result in a loss of about 100,000

American jobs with a cost saving on federal purchases resulting in aggregate welfare gains of between \$112,000 and \$138,000 per job. They also estimate that the tightening of domestic content provisions scheduled to take effect by 2029 will raise domestic employment by about 41,000 jobs, but at a cost of \$154,000 to \$238,000 per job. The higher per-job cost resulting from the incremental tightening of domestic content rules reflects the lower labor intensity of industries that will be affected by tightening relative to those that have already been affected, and an increase in the price of other federal purchases from industries not directly affected by the tightening.

— Greta Gaffin

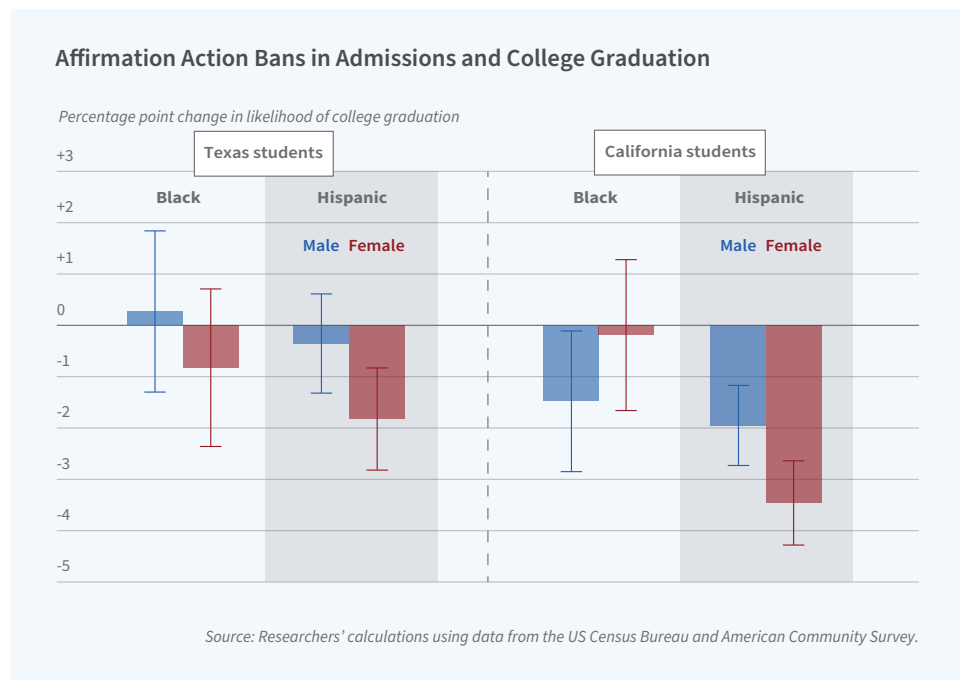
Long-Term Effects of Affirmative Action Bans

Affirmative action policies, which give preference in college admissions to students from underrepresented minority (URM) groups, have been a subject of debate and legal scrutiny in the US. The recent Supreme Court ruling in *Students for Fair Admissions, Inc. v. President and Fellows of Harvard College* barred explicit racial and ethnic preferences in college admissions as unconstitutional. Prior to this ruling, nine states had banned affirmative action in public university admissions.

In [The Long-Run Impacts of Banning Affirmative Action in US Higher Education](#) (NBER Working Paper 32778), [Francisca M. Antman](#), [Brian Duncan](#), and [Michael F. Lovenheim](#) examine the effects of state-level affirmative action bans on the educational attainment and labor market outcomes of students from underrepresented groups. They focus on the first four states to implement such bans: Texas (1997), California (1998), Washington (1999), and Florida (2001).

Using American Community Survey data (2001–21), the researchers analyze a sample of non-Hispanic Black, Hispanic, and non-Hispanic White adults aged 25–51, born between 1970 and 1994. They compare cohorts who were older than 17 at the time of the ban and likely unaffected by it to those younger than 17, who were subject to the new admissions policies.

Pooling the data from all four states, they find that Black and Hispanic men were 1.1 and 1.6 percentage points less likely to complete college relative to White men, respectively, after the ban. For women, these figures were 0.7 and 1.7 percentage points. Graduate degree attainment showed similar patterns, with Black and Hispanic men 0.5 and 0.8 percentage points less likely to obtain a graduate degree than White men and women 0.3 and 1.3 percentage points less likely.



State-level bans on affirmative action in higher education reduced educational attainment for Blacks and Hispanics and had varied, but mostly negative, labor market consequences for these groups.

Labor market outcomes displayed more varied outcomes. While Black men earned about 1.3 percent more relative to White men, and Hispanic men earned 0.9 percent less after the bans, Black and Hispanic women earned 8.1 percent and 7 percent less than White women, respectively. Employment rates for Black and Hispanic men were 2.1 and 1.8 percentage points higher, while Black women saw a 1 percentage point decrease and Hispanic women a 0.3 percentage point increase.

When comparing individuals in states with and without bans across racial and ethnic groups, the researchers find little impact of bans on college attainment for men but a 4 percentage point decline in college completion and a 1.7 percentage point decline in graduate degree attainment for Hispanic women. Earnings in states with bans were 2.6 percent higher for Black men, 3.3 percent higher for White women, 4.2

percent lower for Black women, and 8.1 percent lower for Hispanic women. The employment rate was 3.6 percentage points lower for Hispanic women, who appear to be particularly adversely affected by bans.

The researchers note that positive labor market effects for Black men and negative effects for Black and Hispanic women could be due to differences in the college major choices of URM men and women, or to “mismatch effects” if students admitted under affirmative action struggle academically on account of a gap between their preparation for college and that of their peers. More generally, the researchers caution that the heterogeneity found across states and groups suggests that some contextual factors are at work in determining the impact of college attendance.

— Leonardo Vasquez

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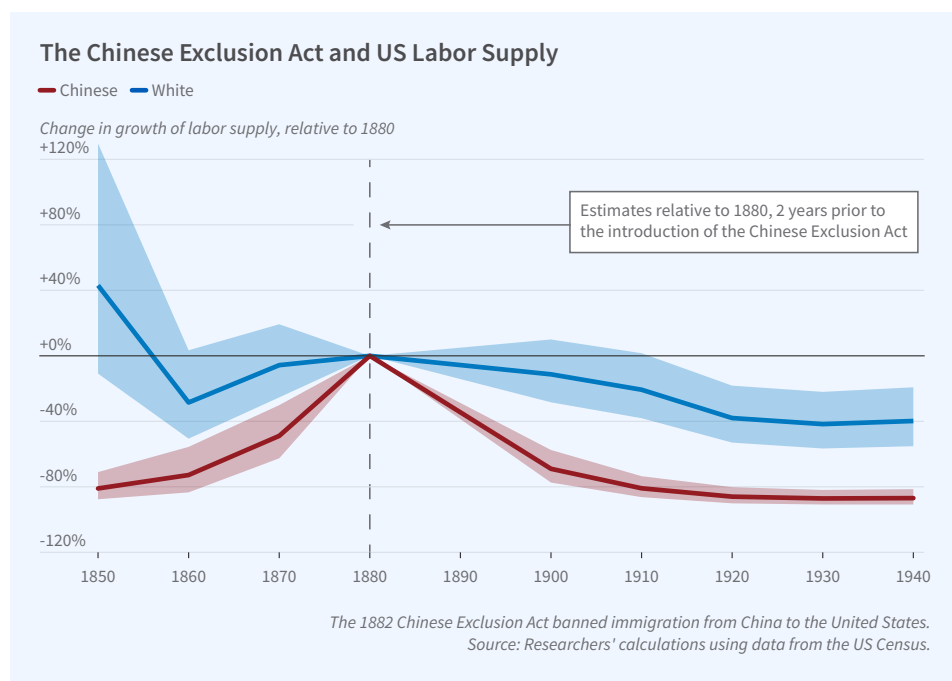
The Chinese Exclusion Act of 1882 and American Labor Markets

The effect of immigrants on the economy and on the jobs available to native workers has been a controversial topic throughout US history, and it continues to be so today. The Chinese Exclusion Act, which was enacted in 1882 and banned nearly all Chinese workers from immigrating to the United States, is one of the most substantial anti-immigrant initiatives. In [The Impact of the Chinese Exclusion Act on the Economic Development of the Western US](#) (NBER Working Paper 33019), [Joe Long](#), [Carlo Medici](#), [Nancy Qian](#), and [Marco Tabellini](#) examine the impact of this policy on the economic development of the Western US, where most of the Chinese immigrants lived at the time.

In 1880, there were about 100,000 Chinese people in the United States, nearly all of whom lived in eight western states: Arizona, California, Idaho, Montana, Nevada, Oregon, Washington, and Wyoming. Ninety-four percent of them were working-aged males, and they comprised 21 percent of the immigrants in the West. Concerns among native-born and European immigrant White men about Chinese immigrants suppressing wages, along with fears about cultural change, led to the passage of the Act.

The Act led to a reduction in the total labor supply of Chinese workers. Many Chinese workers left after the passage of the Act because they would not have been able to go home to visit family in China and then return to the United States, and previous laws had prevented them from bringing their wives to the United States.

Businesses opposed the Act because they did not think they would be able to replace Chinese laborers with other workers. Their view was that, in most cases, Chinese workers



In counties where the Chinese Exclusion Act caused a large reduction in the number of workers who had emigrated from China, the number of non-Chinese male workers also declined.

were not substitutes for native workers. Rather, they could be complementary, for example, if their manual labor created managerial positions for nonimmigrant workers. The researchers find evidence for this view: In counties with high levels of Chinese labor before the Act was passed, both manufacturing output and White labor supply grew more slowly than in other less-affected counties after 1882. Overall, they find that the relative decline in manufacturing output in highly affected counties was 62 percent, and the relative drop in the labor supply of White men was 28 percent. Since the population and economy of the US West at the time were expanding, the estimates obtained from the study do not reflect absolute declines in output or labor supply in affected counties

but rather slower growth than in less-affected places.

Places that lost more skilled Chinese workers also experienced slower growth in the number of skilled White workers. The Act reduced the number of skilled Chinese workers by 43 percent; the researchers find a relative drop of 32 percent in the number of skilled White workers. The one group who benefited was White men born in the West who entered the mining sector when there were fewer Chinese workers. The relatively slower growth in output and labor supply was broad-based in the affected counties. It was observed across sectors both with and without high levels of Chinese labor, and lasted until at least 1940.

— Greta Gaffin

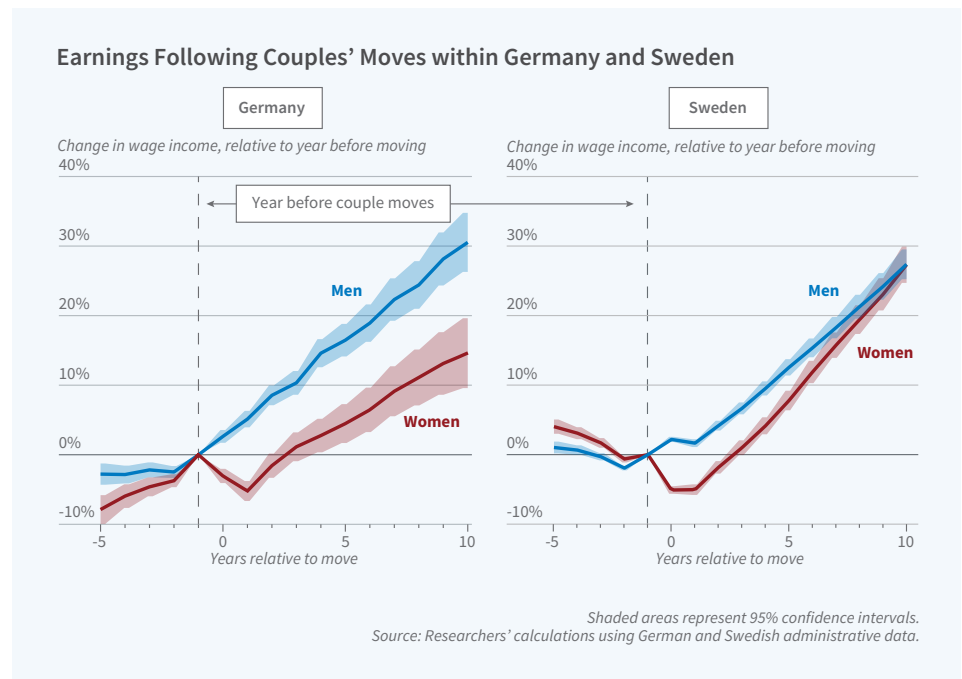
Gender, Career Opportunities, and the Relocation Decisions of Couples

A new study of German and Swedish data finds that men's earnings increase following a couple's move to a new commuting zone, while women's earnings stay the same or decline at the outset. Couples are also more likely to relocate when a man is laid off than after a woman is.

These findings suggest that couples' relocation decisions are driven by traditional gender norms rather than efforts to maximize household income, according to *Moving to Opportunity, Together* (NBER Working Paper 32970), by Seema Jayachandran, Lea Nassal, Matthew J. Notowidigdo, Marie Paul, Heather Sarsons, and Elin Sundberg.

The study focuses on couples who moved between commuting zones between 1995 and 2007 in Sweden and between 2001 and 2011 in Germany. The sample is restricted to couples with at least one spouse between the ages of 25 and 45 at the time of the move and with neither spouse over the age of 60 or under the age of 18. In both Sweden and Germany, men have higher earnings and employment rates than women, but the gender gap is larger in Germany than in Sweden.

The researchers find that men's earnings increase by 10 percent (about €4,500) in Germany and 5 percent (€1,700) in Sweden over the first five years following a move. Women experience virtually no change in earnings in either country. Women's share of the couple's earnings falls by 2.5 percentage points in Germany and 1.1 points in Sweden. Women's earnings lag in part because they spend less time working — particularly in the first year after the move when they are more likely than men to be job hunting. The gender gap persists for at least five years following a move and is largest among couples who are in their 20s. The researchers find that



Both men and women experience long-run earnings increases following a move, but men's earnings rise immediately, while women's drop and later rebound.

the birth of a child around the time of a move did not explain the widening of the earnings gap after a move.

In Germany, cultural differences between former East and West Germans can shed light on the role of gender norms. Historically, women in East Germany were more likely to work than their West German counterparts. Among German couples in which neither spouse is from East Germany, the long-run gender gap following a move is €7,000, compared to €3,100 among couples with at least one spouse of East German origin.

The researchers also study couples' responses to one or both members losing a job in a mass layoff, one involving at least 50 workers. Using data for 2001–2006 for Germany and 1995–2007 for Sweden, they find that a man's layoff increased the likeli-

hood of the couple moving by about 50 percent in Germany and nearly 100 percent in Sweden. In contrast, a woman's layoff had a negligible impact on relocation decisions in both countries.

Germany and Sweden diverge when a woman is the couple's primary earner. In Sweden, women in these households benefit relatively more from a move than women in similar households in Germany. Even in Sweden, however, moves are of greater advantage to male than to female primary earners.

In light of their findings, the researchers conclude "that households in both countries place less weight on income earned by a woman compared to a man, particularly in Germany."

— Steve Maas

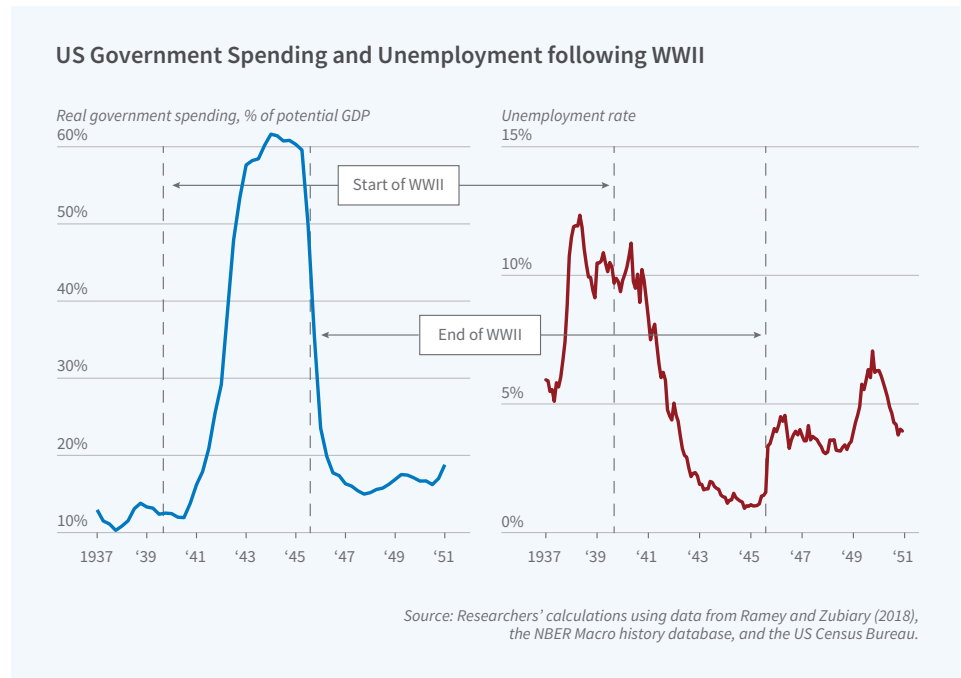
The researchers thank the German Institute for Employment Research and the Institute for Housing and Urban Research and the Urban Lab at Uppsala University for generously providing data and support, and the Economics and Business and Public Policy Research Fund at the University of Chicago Booth School of Business for financial support.

The Trajectory of US Unemployment after World War II

In [Why Didn't the US Unemployment Rate Rise at the End of WWII?](#) (NBER Working Paper 33041), [Shigeru Fujita](#), [Valerie A. Ramey](#), and [Tal Roded](#) investigate why the postwar unemployment rate rose just a few percentage points despite the dramatic decline in US government spending. Using aggregate and sectoral data, government surveys, and a new longitudinal dataset on thousands of individuals spanning the 1940–1950 period, they explore how the US economy was able to reallocate workers so quickly and the factors that led to robust job creation despite the significant fall in military spending.

The researchers find that labor force withdrawals among females aged 20–44 and male war veterans contributed to the modest unemployment rise. Using data from the Census Bureau's Current Population Reports (the precursor to the Current Population Survey) and other sources, they document large drops in labor force participation after the war for young adults. Many veterans took extended vacations after their discharge, and many enrolled in school. These two reasons explain the entire decline of men's labor force participation. Surveys asking individuals why they left the labor force reveal that women aged 20–44 were more likely "pulled" out of the labor force by home production than "pushed" out by returning male veterans.

Most of the workers who stayed in the labor force and were separated from their jobs moved directly into a new one. Workers often accomplished these job-to-job transitions by moving across industries. For military discharges, armed forces to civilian employer movements were the most important, but movements out of the



Despite forecasts of a deep recession associated with a massive drop in government spending following the end of World War II, US unemployment rates rose just a few percentage points.

labor force were also sizable. The findings are an important demonstration that large reallocations of workers across sectors do not always lead to high unemployment rates. In examining the occupational mobility of workers, the researchers find that returning veterans quickly returned to their previous position on the occupation ladder, whereas those laid off from civilian jobs experienced a significant step-down.

The high rate of transition between jobs was only possible because new jobs were being created. At the time, experts worried the economy would fall back into depression once the war stimulus evaporated. Yet, the economy boomed as private demand

for goods and services filled the gap. Possible explanations include pent-up consumer demand facilitated by wartime saving and the Federal Reserve's low-interest-rate policy. The researchers uncover another mechanism through which WWII sowed the seeds of the postwar boom: High government spending during the war crowded out investment in housing, consumer durable goods, and business capital, resulting in depressed levels of private capital stocks by the end of the war. When military spending fell, basic market forces caused private investment to surge as consumers and firms sought to bring capital stocks up to the balanced growth path.

— Lauri Scherer

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