



# Economic Letter

## Declining U.S. Labor Force Participation Rates Stand Out

by Alexander W. Richter, Daniel Chapman and Emil Mihaylov

► **ABSTRACT:** Male and female prime-age labor force participation rates have declined in the U.S. at a faster rate than in most developed countries over the past 20 years, even among people with a college degree. Stark differences in health outcomes, incarceration rates, and labor market, maternity and child-care policies provide potential explanations for the disproportionate participation-rate decline.

**T**he U.S. labor force participation rate has declined over the past several decades, particularly since the Great Recession. The rate is defined as the number of people either employed or unemployed as a proportion of the total noninstitutionalized working-age population (typically those 15 or 16 years of age and older).

While the unemployment rate takes into account the conditions of those in the labor force—either employed or actively looking for work—the participation rate captures those in and out of the labor force. Looking at both indicators is important because a decline in the unemployment rate, instead of reflecting better economic conditions, could reflect a decline in the participation rate if long-term unemployed workers drop out of the labor force.

An examination of the participation rate by gender, age and educational attainment in the U.S. and in the developed world, as reflected in Organization for Economic Cooperation and Development (OECD) and Eurostat data, reveals several trends. Notably, for nearly all categories, the participation rate has declined more in the U.S. than in other OECD countries over the past 20 years. While no single reason likely explains these differences, potential

factors include less-generous maternity and child-care policies, higher incarceration rates, poorer health outcomes and less spending on on-the-job retraining and job-search assistance programs.

### U.S. Rate Comparisons

One way to more clearly see what is happening is to focus on participation rates for prime-age (25–54-year-old) individuals. The influence of demographic shifts—such as baby boomers growing older and dropping out of the labor force and teenagers deciding to delay joining the labor force to attain more education—largely disappears (*Table 1*).<sup>1</sup>

Similarly, classifying prime-age male and females by college-degree attainment helps determine whether declines in the participation rate are concentrated among low-skilled workers due to increasing automation.

In 2016, both non-college-educated and college-educated prime-age male participation rates in the U.S. were among the lowest. This finding is important because the U.S. rates were already relatively low in 1996.

One might have expected the U.S. rate to converge to the rates in other major OECD countries. However, the opposite occurred. Among prime-age males without a degree, the U.S. experienced the sharpest decline

**TABLE 1**  
**1** U.S. Labor Force Participation Rates Slip Relative to Other Developed Nations

Country	Education	Males			Females		
		1996	2016	Change: 1996–2016	1996	2016	Change: 1996–2016
U.S.	No degree	89.7	84.7	-5.0	71.8	66.5	-5.3
	Degree	95.6	93.4	-2.2	84.2	82.0	-2.2
Canada	No degree	87.5	84.8	-2.7	68.1	69.6	1.5
	Degree	94.0	94.0	0.0	84.1	86.7	2.6
France	No degree	95.0	90.2	-4.8	75.7	76.7	1.1
	Degree	96.9	96.5	-0.4	87.8	91.1	3.3
Germany	No degree	91.7	90.2	-1.5	71.4	80.4	9.0
	Degree	96.6	96.0	-0.6	86.1	88.9	2.8
Italy	No degree	89.8	87.7	-2.1	51.4	62.1	10.7
	Degree	95.5	90.9	-4.6	85.5	82.7	-2.8
Sweden	No degree	90.5	92.1	1.7	84.9	83.7	-1.3
	Degree	92.9	95.6	2.7	91.6	93.3	1.7
U.K.	No degree	90.4	89.7	-0.7	70.8	73.4	2.6
	Degree	96.7	95.6	-1.1	87.7	87.8	0.2
European Union	No degree	-	89.6	-	-	74.2	-
	Degree	-	95.6	-	-	89.1	-

NOTE: Discrepancies in numerical changes are due to rounding.

SOURCES: Eurostat; Statistics Canada's CANSIM; Census Bureau's Current Population Survey.

**TABLE 2**  
**2** U.S. Employment Rates Notably Decline

Country	Education	Males			Females		
		1996	2016	Change: 1996–2016	1996	2016	Change: 1996–2016
U.S.	No degree	84.9	80.2	-4.7	67.8	62.4	-5.4
	Degree	93.4	91.2	-2.2	82.0	79.7	-2.3
Canada	No degree	77.7	77.2	-0.5	61.0	64.3	3.3
	Degree	87.7	88.9	1.2	78.4	82.6	4.2
France	No degree	85.4	80.1	-5.3	64.5	67.4	2.9
	Degree	91.4	91.9	0.5	81.3	86.3	5.0
Germany	No degree	83.8	85.5	1.7	64.3	77.1	12.9
	Degree	92.8	94.0	1.2	81.2	86.9	5.8
Italy	No degree	83.5	78.2	-5.4	44.7	53.5	8.8
	Degree	90.2	85.4	-4.8	77.7	75.6	-2.1
Sweden	No degree	80.8	86.3	5.5	77.5	77.3	-0.2
	Degree	88.4	91.4	3.0	88.2	90.1	1.9
U.K.	No degree	81.8	85.7	3.9	66.2	69.8	3.6
	Degree	92.9	93.5	0.6	85.2	85.4	0.2
European Union	No degree	-	81.5	-	-	66.5	-
	Degree	-	91.5	-	-	84.2	-

NOTE: Discrepancies in numerical changes are due to rounding.

SOURCES: Eurostat; Statistics Canada's CANSIM; Census Bureau's Current Population Survey.

from 1996 to 2016—5.0 percentage points. For males with a degree, the decline was the second largest.

Female prime-age activity paints an even more dramatic picture. Although the participation rate among prime-age females in the U.S. was relatively high throughout much of the 20th century, the U.S. was the

only major OECD country listed to experience sharp declines among individuals with and without a college degree.

As a consequence, female participation rates in the U.S. for those with a college degree are now the lowest among the OECD countries shown in Table 1 and second lowest for those without a degree.

Even compared with the European Union as whole, the U.S. stands out.

Table 2 shows the employment-to-population ratio—the ratio of those who are employed relative to the prime-age population—across the same categories and countries shown in Table 1. It is useful to look at employment ratios, in addition to participation rates, because they control for differences in unemployment across countries.

A pattern similar to the one depicted in Table 1 emerges. Aside from males in Italy and those without a college degree in France, the U.S. experienced the largest decline in all categories. As of 2016, the employment-to-population ratio in the U.S. among women with and without a college degree is the second lowest of the countries shown and well below the European Union averages.

While slightly less dramatic, the rates among men in the U.S. are also lower than European Union averages. In general, the figures show that even after removing those who are unemployed, labor force participation is relatively low in the U.S.

Comparing prime-age male and female participation rates without grouping by education makes it easier to compare the U.S. to all other OECD countries (*Chart 1*). The U.S. prime-age male labor force participation rate was 23rd out of 33 OECD countries in 1996. Twenty years later, the U.S. fell even further, to 31st out of 33 countries.

U.S. prime-age females experienced an even steeper ranking decline, falling from 11th in 1996 to 27th in 2016.

Looking at rankings based on employment-to-population ratios yields similar results. The U.S. slid from 15th to 22nd among males and from 10th to 25th among females from 1996 to 2016.

The drastic cross-country differences are likely due to unique factors—both on the demand and supply sides—affecting the U.S. more than other countries. Demand-side factors such as increasing automation or globalization are clearly important, but supply-side factors are where the U.S. stands out.

### Incarceration Rates

A 2016 report by former President Obama's Council of Economic Advisers cites higher rates of incarceration com-

pared with other OECD countries as a possible explanation for the decline in prime-age male labor force participation.<sup>2</sup>

Because individuals held in jails and prisons are excluded from the participation-rate calculation, the contemporaneous effect of incarceration on labor force participation can be mixed. However, formerly incarcerated people seeking jobs run a high risk of dropping out of the labor force due to hiring restrictions and stigma.

According to the World Prison Brief database, the prison population rate in the U.S. increased from 592 per 100,000 people in 1995 to 666 in 2015, a 12.5 percent increase that far exceeds the OECD average of 145 per 100,000. Furthermore, a recent study estimated that about 20 million Americans are either incarcerated or former felons.<sup>3</sup>

## Child Care, Parental Leave

Limited access to guaranteed parental leave or child-care services is another potential reason for falling prime-age participation rates. The U.S. ranked 30th out of 33 countries in total public expenditures on family-related policies as a percentage of gross domestic product (GDP) in 2013, with the U.S. spending just 1.1 percent, according to OECD figures.

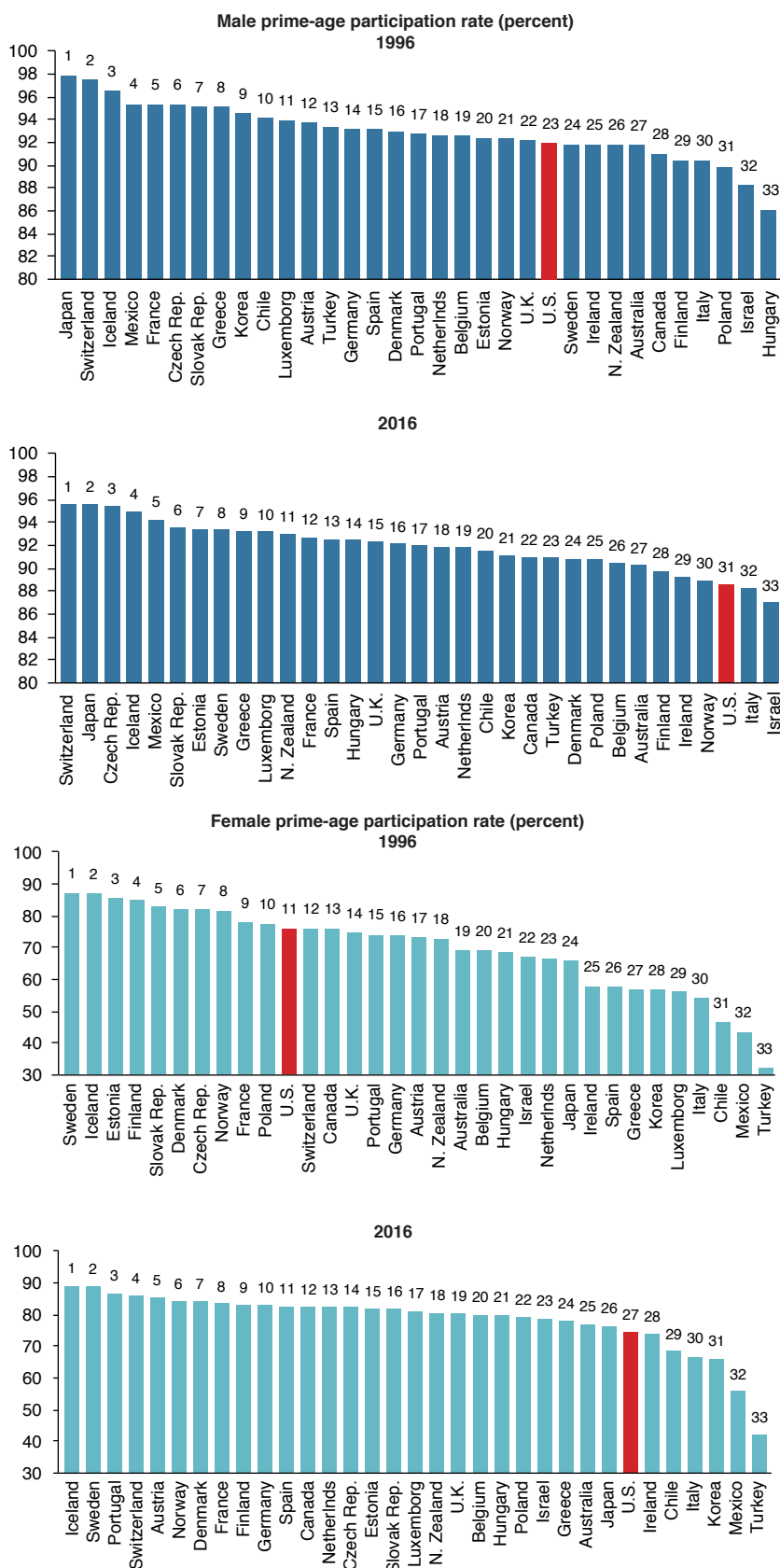
The United Kingdom, where participation rates are higher, spent more than 4 percent of GDP on such services. Recent estimates find the expansion of these types of policies in countries outside the U.S. explains about 29 percent of the decline in the U.S. female participation rate relative to other OECD countries.<sup>4</sup> Similarly, analysis of California's paid family leave law enacted in 2004 found the policy increased the probability that mothers returned to their previous positions and the average number of hours worked.<sup>5</sup>

## Health Care and Mortality

Poorer health outcomes in the U.S. also potentially reduce participation. Mortality rates for prime-age individuals in the U.S. have increased and are much higher than in other countries. The U.S. ranked 26th out of 34 OECD countries for total life expectancy at birth in 2015, a decline from 21st place in 1996. In contrast to other demographic groups, recent research found that mortality rates for non-Hispanic whites

CHART  
1

U.S. Declines in OECD Rankings of Labor Force Participation



SOURCE: Organization for Economic Cooperation and Development (OECD).

have increased since the beginning of the 21st century and can be attributed partly to “deaths of despair”: drug overdoses, alcoholism and suicide.<sup>6</sup>

The U.S. also had the highest rates of obesity and opioid use in 2015.<sup>7</sup> A recent paper reported that 40 percent of prime-age men who are not in the labor force say that pain is a barrier to working.<sup>8</sup> More generally, the paper argues that health issues are “a substantial barrier to work that would have to be addressed to significantly reverse their downward trend in [labor force] participation.”

### Job Training and Search

Lower spending on active labor market policies, such as job creation programs, job-search assistance and training programs in the U.S., also likely contributes to participation rate trends. The U.S. spent only 0.1 percent of GDP on “active labor market policies,” well below the OECD average of 0.6 percent in 2011, a study found.<sup>9</sup> The lower spending likely reduced worker incentives to remain in the labor force while unemployed.

### Continuing Trend

Overall, declining workforce participation began before the Great Recession and accelerated in the succeeding years. While economists have pointed to a wide range of possible factors that could explain the decline, evidence suggests that policies aimed at reducing the financial and logistical burden of raising children, improving physical and mental health and reducing incarceration rates would help improve participation rates and potentially reverse the trends in the U.S.

*Richter is a senior economist and Chapman and Mihaylov are research analysts in the Research Department at the Federal Reserve Bank of Dallas.*

### Notes

<sup>1</sup> For CANSIM and Eurostat, International Standard Classification of Education (ISCED) levels 0–4 correspond to respondents without a college degree, and levels 5–8 correspond to those with a college degree (the U.S. equivalent is an associate degree or higher). Since U.S. Current Population Survey data do not use ISCED categories, we carefully approximated the same breakpoint as the other countries.

<sup>2</sup> “The Long-term Decline in Prime-Age Male Labor Force

Participation,” Council of Economic Advisers, 2016.

<sup>3</sup> “The Growth, Scope and Spatial Distribution of People with Felony Records in the United States, 1948–2010,” by Sarah Shannon, Christopher Uggen, Jason Schnittker, Michael Massoglia, Melissa Thompson and Sara Wakefield, *Demography* (forthcoming).

<sup>4</sup> “Female Labor Supply: Why is the U.S. Falling Behind?” by Francine Blau and Lawrence Kahn, National Bureau of Economic Research, NBER Working Paper Series, January 2013.

<sup>5</sup> “The Effects of Paid Family Leave in California on Labor Market Outcomes,” by Charles Baum and Christopher Ruhm, National Bureau of Economic Research, NBER Working Paper Series, December 2013.

<sup>6</sup> “Mortality and Morbidity in the 21st Century,” by Anne Case and Angus Deaton, *Brookings Papers on Economic Activity*, vol. 48, no. 1, 2017.

<sup>7</sup> “Obesity Update 2017,” Organization of Economic Cooperation and Development, 2017, and “Narcotic Drugs: Estimated World Requirements for 2017,” International Narcotics Control Board, 2017.

<sup>8</sup> “Where Have All the Workers Gone?” by Alan B. Krueger, paper presented at the 60th Economic Conference, Federal Reserve Bank of Boston, Oct. 4, 2016.

<sup>9</sup> “Activation and Active Labour Market Policies in OECD Countries: Stylized Facts and Evidence on Their Effectiveness,” by John P. Martin, policy paper, IZA Institute of Labor Economics, 2014.

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Federal Reserve Bank of Dallas

2200 N. Pearl St., Dallas, TX 75201