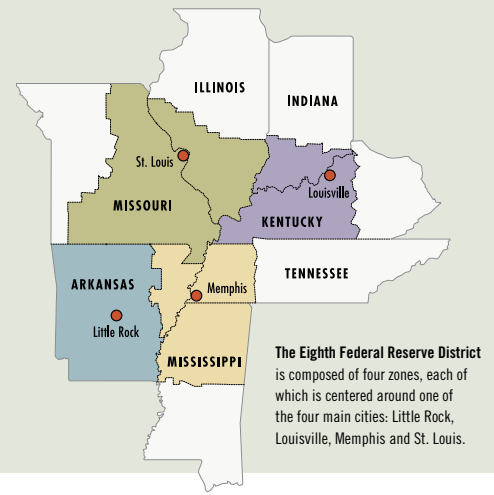


Demographics Help Explain the Fall in the Labor Force Participation Rate

By Maria A. Arias and Paulina Restrepo-Echavarria



Labor market performance is at center stage in monetary policy discussions. As such, measures of employment growth and the unemployment rate are constantly being scrutinized. Recently, however, the measure of labor force participation (LFP) has increasingly drawn attention; research studies during the past several years have focused on LFP in an attempt to explain the slow and jobless recovery since the end of the Great Recession.

The LFP rate measures the share of the population that actively participates in the labor market—the total number of people employed and unemployed as a share of the working-age population.¹ As economists

The share of prime-working-age people (those between 25 and 54 years old) now makes up about 64 percent of the labor force, both in the nation and in the District.

have tried to explain the national economy’s slow and long recovery by decomposing the factors that affect the labor market, two general views have emerged. James Bullard, the economist who is the president and CEO of the Federal Reserve Bank of St. Louis, describes these two views as the “bad omen” view, which says that the declines in the LFP rate are due to people leaving the labor force because of the poor state of the economy, and the “demographics” view, which states that the changes in the rate are a reflection of changes in the demographics of the labor force.²

TABLE 1
Labor Force Participation Rates (percent)

	U.S.	Arkansas	Illinois	Indiana	Kentucky	Mississippi	Missouri	Tennessee
1976	61.8	58.2	62.8	63.8	60.0	58.6	61.7	60.6
1995	66.4	64.8	68.3	70.1	62.4	62.6	70.5	66.6
2015	62.6	58.0	65.0	63.8	56.6	56.4	65.7	59.1

SOURCE: Bureau of Labor Statistics.

What does the nation’s labor force look like? How does the St. Louis Fed’s district compare? In this article, we explore demographic changes; we describe how the composition of the labor force has changed nationwide and in the District’s states over the past 30 years and how these changes tie into the LFP rate.³

Participation Trends

The national LFP rate is hump-shaped: It hovered between 58 and 60 percent until the early 1970s, increased at a relatively fast pace for two decades (surpassing 66 percent by the end of the 1980s) and continued to rise until it reached its peak of 67.3 percent in the year 2000. Then, the participation rate remained fairly steady, declining only slightly, until 2009, when the pace of decline accelerated.

State-level data show that the seven states in the District exhibited the same rising and falling hump-shaped pattern since 1976 (when the data first became available), peaking sometime between 1995 and 2000. Among them, Mississippi has usually had the lowest participation rates, followed by Kentucky, Arkansas and Tennessee, all with rates lower than the national average. On the other hand, Missouri, Illinois and Indiana have had the three highest participation

rates in the District, at or above the national average for most of the period. (See Table 1.)

In the Labor Force or Not?

To better understand the changes in LFP, we used data from the Current Population Survey’s Annual Socioeconomic Supplement to decompose the labor force and the nonparticipants by three demographic characteristics: sex, age and educational attainment during the last 30 years.⁴ Table 2 summarizes the results for 2015.

As with the participation rate, the general demographic composition of those in the labor force and those not in the labor force in the District’s states highly resembles the national average, particularly when it comes to breakdowns by sex and age. There are marked differences with some states, however, when it comes to educational attainment.

Breakdown by Sex

The changes over the years portray the well-documented national trends of increasing participation of women in the labor force between the early 1970s and its peak during the early 2000s and of the longer-term decline in male participation.

In 2015, the labor force was 53 percent male and 47 percent female, while 40

TABLE 2

Demographics of Those in and Not in the Labor Force in 2015 (percent)

			U.S.	Arkansas	Illinois	Indiana	Kentucky	Mississippi	Missouri	Tennessee
Labor Force	By Sex	Male	53.1	50.8	52.3	52.3	52.1	52.3	51.8	53.0
		Female	46.9	49.2	46.7	47.7	47.9	47.7	48.2	47.0
	By Age	16 to 24	13.2	14.0	12.7	13.3	16.0	14.8	13.6	14.0
		25 to 54	64.4	65.5	64.7	63.1	64.5	64.4	63.4	61.9
		55 to 64	16.7	16.0	16.4	17.7	14.0	16.9	16.9	17.7
		Over 65	5.8	4.6	6.2	5.9	5.4	3.9	6.1	6.4
	By Educational Attainment	Less than High School	9.6	11.1	8.1	9.5	7.1	10.2	7.8	9.9
		HS Diploma	27.0	35.7	25.5	33.6	31.5	32.7	29.0	29.7
		Some College	28.9	28.2	28.3	26.6	29.7	33.4	30.7	28.4
		College Graduate	22.1	18.0	25.3	19.3	19.6	14.3	20.9	19.1
Grad School and More		12.3	6.9	12.7	10.9	12.1	9.3	11.5	12.8	
Not in Labor Force	By Sex	Male	40.2	43.1	40.3	40.8	41.8	41.8	40.3	39.3
		Female	59.8	56.9	59.7	59.2	58.2	58.2	59.7	60.7
	By Age	16 to 24	19.3	15.3	19.5	19.4	13.8	17.9	17.7	15.6
		25 to 54	25.9	25.6	23.8	23.6	29.6	28.9	20.1	28.1
		55 to 64	15.3	17.1	15.2	15.6	16.7	19.9	15.2	15.0
		Over 65	39.5	42.0	41.5	41.4	39.9	33.3	47.0	41.2
	By Educational Attainment	Less than High School	24.7	23.7	23.8	24.9	30.9	29.5	20.1	28.0
		HS Diploma	31.3	37.3	30.6	42.7	34.1	32.6	31.1	34.2
		Some College	24.8	24.2	24.0	20.5	21.8	24.2	27.0	22.2
		College Graduate	12.5	11.1	13.5	7.5	8.3	8.5	13.9	10.3
Grad School and More		6.7	3.6	8.2	4.3	4.9	5.1	7.9	5.3	

SOURCES: Current Population Survey's Annual Socioeconomic Supplement and authors' calculations.

percent of nonparticipants were male and 60 percent were female. The breakdown by gender is a lot more even than it was in 1976, when 59 percent of the labor force was male and only 28 percent of nonparticipants were male. Between 1985 and 2015, the rise of women in the labor force ranged from 1 percentage point in Missouri and Tennessee to 5 percentage points in Indiana and Kentucky, compared with a 2 percentage point increase nationwide. In contrast, changes in the share of nonparticipant males ranged from 3 percentage points higher in Tennessee to 12 percentage points higher in Kentucky, compared with 7 percentage points higher nationwide.

Breakdown by Age

The share of prime-working-age people in the nation's labor force (those between 25 and 54 years old) peaked in 1995, at 72 percent, and now makes up about 64 percent of the labor force both in the nation and in

the District. Nationwide, the share of those between 16 and 24 years old was 13 percent in 2015, its lowest point in the postwar era, and the share of those 55 years old and older was 23 percent, its highest point. Trends are very similar across the District, though Kentucky has a slightly younger labor force, with 16 percent of people between 16 and 24 years old and 19 percent who are 55 or older.

Breakdown by Education


Nationally and in the District, educational attainment has increased substantially. On average, the labor force in the District has a lower educational attainment than the national average; however, there are some important differences to highlight. In Arkansas, the share of those in the labor force with less than a high school diploma and the share of those with a high school diploma but no college are the highest, at 11 percent and 36 percent, respectively. Similarly, Mississippi and Arkansas have a lower

share of college graduates in their labor force, with 24 percent and 25 percent having a bachelor's degree or higher. In contrast, Illinois has the labor force with the highest educational attainment, with 38 percent of the labor force having a bachelor's degree or higher. As for those not in the labor force, in both Missouri and Illinois there is an above-average share of people with a bachelor's degree or higher (22 percent in both states, compared with 19 percent nationwide).

Making Ends Meet

The demographic composition of those in the District's labor force and those not in the labor force is very similar to the nation's. The share of women in the labor force has increased, while the share of men not in the labor force has also increased. The labor force has generally aged, while the share of those over 55 years old not in the labor force has also increased. Furthermore, a larger share of the working-age population is reaching

higher levels of education, with the share of the labor force having at least a bachelor's degree continuing to increase steadily.

Piecing together these characteristics of the working-age population, we can help explain the declining labor force participation rate. The clearest trend is the overall aging of the working-age population, largely because the baby boomers started retiring in the early 2000s. Similarly, more education implies spending more years in school, giving people later starts to their working careers. Also putting downward pressure on the LFP rate is the increased participation of women in the labor force, since families have to decide how to balance their time accordingly. That is, with more mothers working full time, fathers may decide to stay at home or work only part time to help care for children and do any work that is needed at home. 

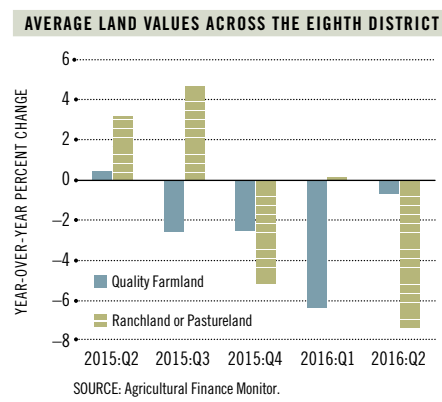
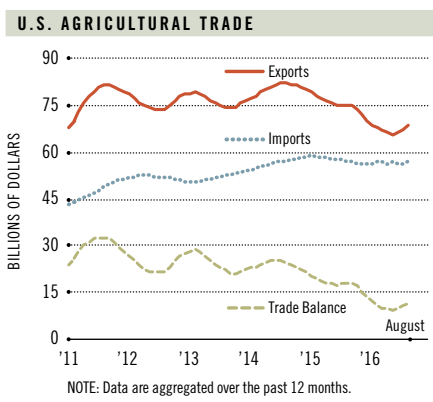
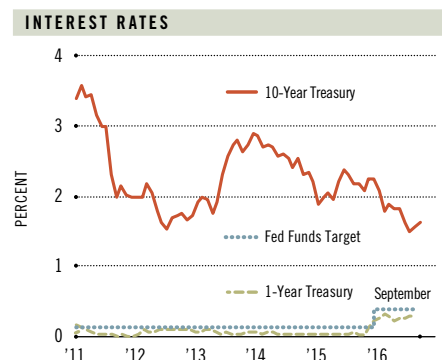
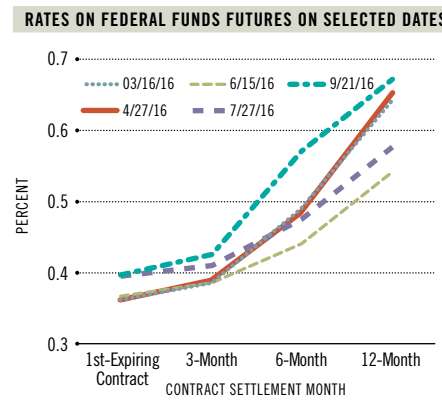
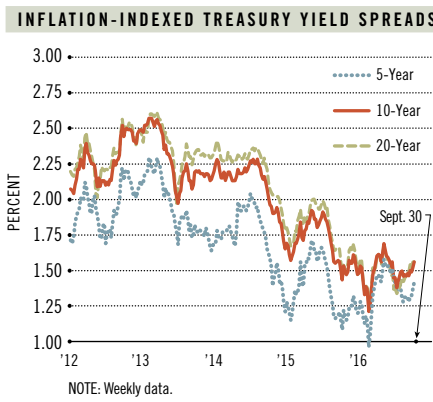
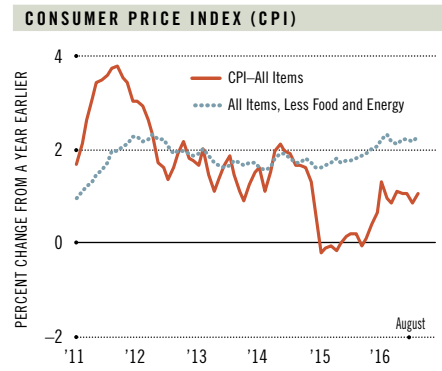
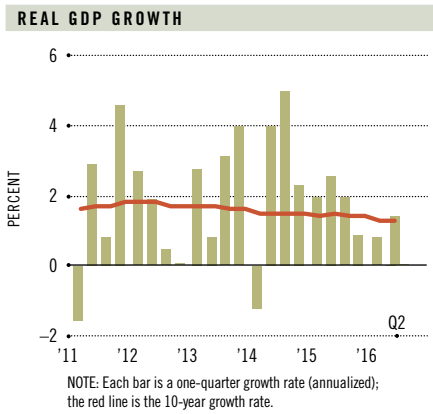
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ENDNOTES

- ¹ The standard definition for working-age population is the civilian noninstitutional population above the age of 16. Note that to be considered unemployed, the person must be available to work and have been actively looking for a job in the previous month. If a person is neither employed nor unemployed, that person is not in the labor force, also called nonparticipant.
- ² See Bullard.
- ³ The state-level data we use are statewide averages. However, the only state that is entirely in the Eighth District is Arkansas. The other states are Illinois, Indiana, Kentucky, Mississippi, Missouri and Tennessee.
- ⁴ Note that adding the share of those in the labor force to the share of those not in the labor force equals the total working-age population; so, 1 minus the labor force participation rate gives us the share of those not in the labor force.

REFERENCE

Bullard, James. "The Rise and Fall of Labor Force Participation Rates in the United States." Federal Reserve Bank of St. Louis Review, First Quarter 2014, Vol. 96, No. 1, pp. 1-12.



On the web version of this issue, 11 more charts are available, with much of those charts' data specific to the Eighth District. Among the areas they cover are agriculture, commercial banking, housing permits, income and jobs. To see those charts, go to www.stlouisfed.org/economyataglance.