



“What goes up, must come down”

The cycles of the US Labor Participation Rate

AUTHORED BY
TOBY PHAN

EDITED BY
BEN GONZALEZ

Introduction

The labor market in the United States is very dynamic, allowing people to enter and exit the labor market easily. A measure that significantly reflects these dynamics of the labor market is the labor force participation rate. From 2000, the labor force participation rate has continued to fall from its peak, and it is currently hovering at the levels last seen in the 1970's. The unemployment rate in recent years has been relatively low, normally implying that the economy in the United States is doing well. However, there are areas of concern within the US economy. In this paper we will focus on the decreasing labor force participation rate, the drivers behind the decline, and the implications for the economy.

Before we dig deep into this issue, we need to understand the basic concepts of the labor force, unemployment, its measures, and its history in the United States. The labor force includes people in the working-age population that are actively working for some sort of wage or salary (employed) and people in the working-age population who are actively seeking employment (unemployed). The labor force does not include people outside of the working-age population (16+), retired people, people in school, people who stopped looking for a job, people working in the military, etc.

The labor force participation rate is simply the percentage of the working-age population that is in the labor force. So, to calculate this measure, you add up the employed and unemployed people, then divide it by the working-age population and multiply by 100 to get the labor force participation rate. For example, if there are 250 million people in the working age population, 143 million people employed, and 6 million people unemployed, then the labor force participation rate is 59.6%. If people are leaving the labor force, the labor force participation rate will decrease because mathematically, the labor force is in the numerator. The people that are included in the labor force are those who are employed, unemployed, and most importantly actively looking for a job. Therefore, people who is not actively looking for employment are not part of the labor force in the United States.

The unemployment rate in simplest terms is measured by the fraction of the labor force that is unemployed. For example, if the labor force has 149 million people and there are 7.5 million people unemployed in the United States, the unemployment rate will be 5%. because 7.5 million unemployed people are the fraction of 149 million people in the labor force. There are many ways to measure unemployment. According to the Bureau Labor of Statistics¹, there are 6 different measures of unemployment. However, the official unemployment rate for the United States is measured by U3. The U3 measure considers those who do not have a job that pays a salary, who are actively looking for one 4 weeks before U3 is measured, and who are available to work or take the offer. The general assumption is that if a person is simply not working, then that individual will be considered unemployed. However, in economic terms, this is not true. The U3 measure does not include people who are discouraged from job search, people who are marginally attached (for reasons other than discouragement), and people who are only working part-time. If we do include those as part of measures of unemployment (U6), then it would overstate the status of the economy of the United States.

Historical Cycles

History of the Labor Force (Great Depression and WWII)

Now that we know the basics and understanding of what's included in the labor force, how the labor force participation rate is measured, and how the unemployment rate is measured, we will then use that knowledge to analyze how these measures shape up the United States throughout its history. Firstly, the Great Depression from the 1930s to World War I was a devastating time for the people of the United States. According to the FDR Library², the banking system and the stock market crashed, prices dropped by 1/3 of 1929's prices, and most importantly about 25% of the labor force (12,830,000 people) in the United States at the height of the Great Depression (1933) are unemployed. Furthermore, the labor force participation dropped to 50%. Businesses laid off a lot of workers at that time due to the overturn of the economy. There were lots of wage cuts and reduced hours for workers who were lucky to keep their jobs. Furthermore, the workers who were lucky to have kept their jobs fell 42.5% of their income between 1929 and 1933. One of the famous photos³ of the Great Depression called the "Migrant Mother", helped illustrate the suffering and struggles that the people who left the labor force were dealing with during the Great Depression.

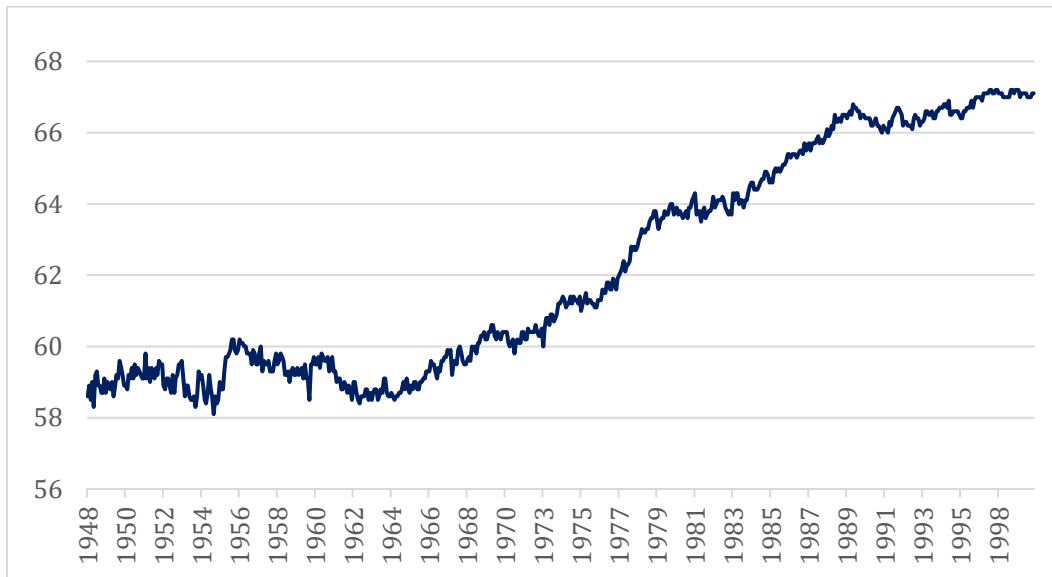
We don't have that much data to show the actual participation rate for the Great Depression period. After the Great Depression, World War II occurred, and it affected some of the groups of the labor force. Firstly, a Selective Training and Service Act of 1940 was instituted, requiring all men between ages 21 and 45 to register to fight in the war. Then after the Pearl Harbor attack in 1941, there were later amendments that expanded the age to ages 18 through 65. As men were serving in the military because of the act, it significantly lowered the number of men in the labor force, which reduced the labor force participation rate for men. There was a total of 16 million men served in the military, which is 1/3 of the male population ages 18 through 45. Before WWII, there were strict and traditional gender roles where men were prioritized in making an income by working full-time jobs to support the family while women were prioritized into staying at home, taking care of children, and managing the house. While the men were fighting in the war, there were a lot of civilian and military jobs that needed to be filled in. As a result, more women entered the labor force and took on opportunities like aircraft, hospitals, factories, and many more, temporarily breaking out of the traditional social norm of women. According to the National Bureau of Economics Research⁴, there was only 28% of women working in 1940. Then, by 1945 when WWII happened, that measure increased to 34%, which is a 6-percentage point increase. A poster that shows a quote "We Can Do It!" with an icon portraying Rosie the Riveter was created by an artist named J. Howard Miller in 1942, and the poster symbolizes the encouragement of women to enter the labor force and the boost of patriotism.

Although WWII helped encourage women to participate in working while the men were at war, it was only temporary. After WWII ended, all men who participated in the war went back to their wives and started working in their jobs again. The women who were working during the wartime stepped down and went back to their traditional social norms. resulting in a low labor force participation rate for women after WWII. During the 1950s, around 86% of men in the working-age population were participating in the labor force while only around 33% of women in the working-age population were participating in the labor force (Figure 2). Although the labor force participation rate for women is still higher than before World War II, the rate only stagnates around that number for the next 4 years because of the women going back to their households.

Growth before the Millenium

The traditional social norms are mainly a key reason why the overall labor force participation rate fluctuated at around 58% and 59% until the 1960s and the 1970s. The overall labor force participation rate in 1963 was around 58%. However, we then see the labor for participation rate gradually increase even more over 33 years. By the beginning of 1974, the labor force participation rate increased to 61.3%, which is a 5.4% increase from the labor force participation rate in the early 60s and late 50s (Figure 1). Looking at the labor force participation rate for each gender, we see a large growth in the labor force participation for women between 1952 to 1996.

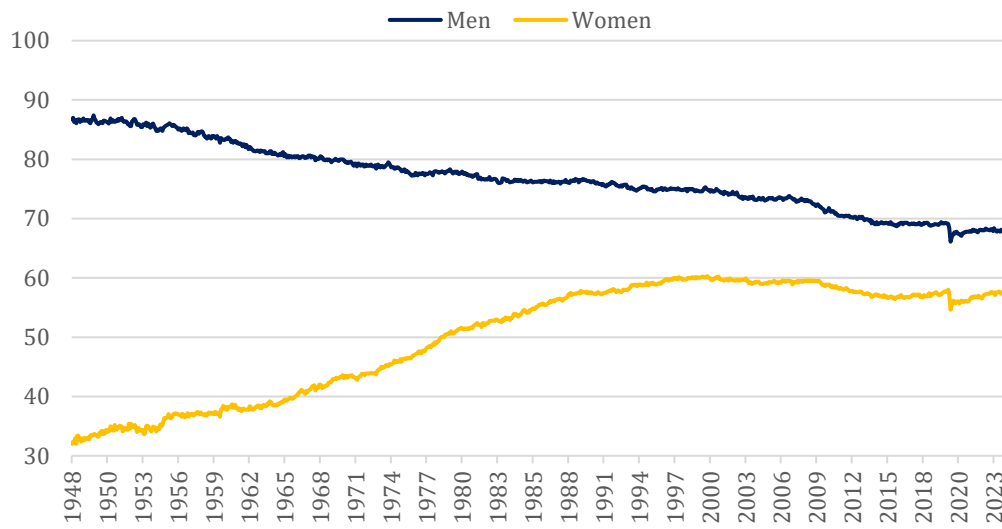
Figure 1: Labor Participation Rate (%)



Source: US Bureau of Labor Statistics (BLS)

The labor force participation rate in 1952 for women was at 34.5% while the labor force participation rate in 1996 for women was at 59.4%, a 24.9 percentage point difference between those 2 years (Figure 2).

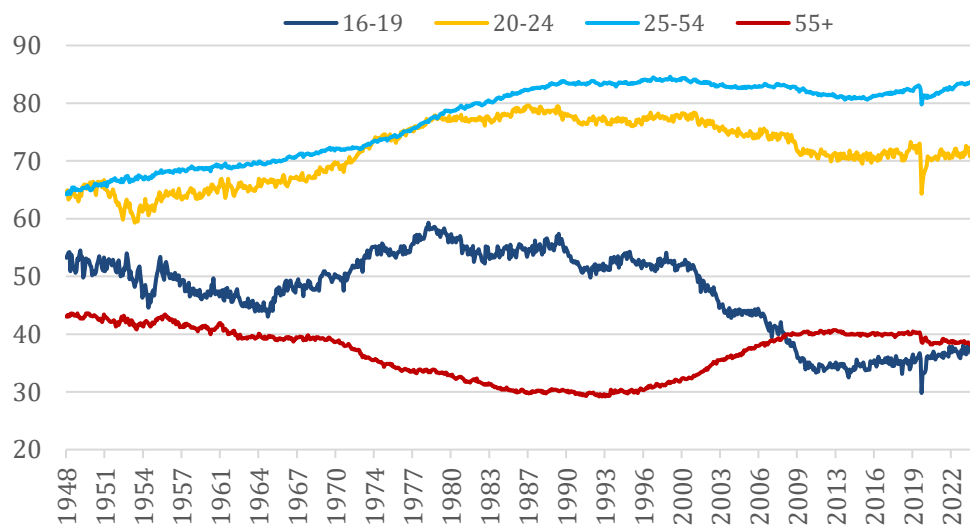
Figure 2: Labor Force Participation Rate by Gender (%)



Source: US Bureau of Labor Statistics (BLS)

Looking at the labor force participation rate for age groups, we see a growth in labor force participation for ages 20 through 24 years old and ages 25 through 54 years old. Both age group's participation rate in the labor force grows similarly as they increase up to around the high 70s and low 80s (Figure 3).

Figure 3: Labor Participation Rate by Age Group



Source: US Bureau of Labor Statistics (BLS)

There are a couple of major factors as to why the overall labor force participation rate grew over time between the 50s and the '90s. One of the key factors is the overall increase in women's participation in the labor force, which is mainly caused by the change in women's society. As previously stated before, there was an increase in women's involvement in the labor force

during WWII because their husbands left the labor force to serve in the military during the war. However, that involvement is only temporary, which leads to a slower growth in their labor force participation. Once the '60s and '70s hit, many movements, legislations, and changes in society led to a longer-term growth in the labor force participation rate for women, which then led to a longer-term growth in the overall participation rate. There was a women's liberation movement, a political movement to simply gain equal rights and opportunities for women in gender roles, education, and employment. As a result, women during the liberation movement started shifting away from the traditional social norms, and more women started to be more involved in high levels of education, leading to an increase in the overall labor force participation rate over time. According to the National Center for Education Statistics⁵, among high school graduates, around 20% of women aged 25–29 had completed 4+ college education, which is 8 percentage points lower than men aged 25-29 in the early 1970s. By 1994, the percentage point difference between men and women who had earned a bachelor's degree, or more was smaller, indicating the improvement in women's involvement in the labor force and education. Not only did the women's liberation movement help women pursue higher education, but it also led to key passing of legislative acts that impacted women's rights. For example, signed by President Lyndon B. Johnson, the Civil Rights Act of 1964 outlawed discrimination based on race, religion, and gender in public areas including employment programs. Another example is the Equal Pay Act of 1963, which was signed by President John F. Kennedy, and its main purpose was to outlaw wage discrimination based on gender. Overall, these legislations not only helped change women's culture and society but also strongly influenced women's involvement in the labor force in the long run.

Another key factor in the growth of the overall labor force participation rate between the 1950s and the 1990s is the baby boomer generation (people who were born between 1946 and 1964) entering the labor force. A significant difference in population between the baby boomer generation and Generation X helps show a difference in effect in the labor force participation rate. Jessica R. Sincavage, the economist in the Commissioner's Development Program of the Bureau of Labor of Statistics, illustrated the annual births of 3 generations. We see that the number of births peaked at 4.3 million people in 1957, which is during the baby boomer generation, and it remained at that level until 1961 (Figure 5). Furthermore, there were a total of 75.8 million people born in the United States during the baby boomer generation. Generation X (people born between 1965 and 1980) had the lowest total number of births during its generation compared to the baby boomers. Sincavage showed that approximately 38 million people were born in the US between 1965 and 1975, about half of the number of births during the Baby Boomer era. Since there were more births during the Baby Boomer era than during the Generation X era, there was a much larger impact on the unemployment rate and the labor force participation rate once the boomers reached their working age, worked in a job and actively applied for a job. According to FRED, we see an upward trend in the labor force participation rate in age groups 20 through 54 between 1968 and 1996. The labor force participation rate between the 25 to 54 age group in 1965 was at 69.9%, but surged to 82.5% in 1987, a 12.6 percentage point difference.

Referring to the overall metric, the labor force participation rate reaches at an all-time high between the 90s and first 3 months of the 21st century, ranging between 60% and 67.3%. Specifically, the labor force participation rate of 67.3% was during February of 2000. These high values are caused by 2 main factors. The first factor of this effect is because of the rising labor force participation in women during the 90s. Referring to Figure 2, the labor force participation for women increased from 57.4% in 1991 to 60% in 1999. The second factor is the most influential reason not only because of the rising in overall labor force participation rate, but also because of growth in women entering the labor force. During Bill Clinton's presidency, the

Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) was enacted, which aimed to promote employment towards low income families by imposing a time limit of 5 years for Temporary Assistance for Needy Families (TANF) aid, providing \$14 billion to child care funding over 6 years, requiring recipients of TANF to work within 2 years of receiving aid, and rewarding \$1 billion for states that is able to move welfare recipients into employment. According to a report from the American Progress, Clinton also made policy decisions that grew low-income families by modernizing social safety net, increasing minimum wage to \$5.15, letting parents take up to 12 weeks of unpaid leave via Family and Medical Leave Act, expanding earned income tax credit, and reducing a family's income tax bill by \$500 per child. These policy implementations made by Bill Clinton and his administration created huge incentives for lower- and middle-class workers and females to enter the labor force during Clinton's presidency, which significantly impacts the overall measure of the labor force participation rate and have it well-known to be numerically the most active labor force in US history.

Decline in the 21st Century

Transitioning to the 21st century, the overall labor force participation rate started to decline, and the decline continues till today, further pulling away from the US's peak of the labor force. In the beginning of 2001, the labor force participation rate was at 67%, and in the beginning of 2009, the labor force participation rate was at 65.7%, which is a 1.3 percentage point lower than back in 2001 (Figure 4).

Figure 4: Labor Force Participation 2000-2025 (%)



Source: US Bureau of Labor Statistics (BLS)

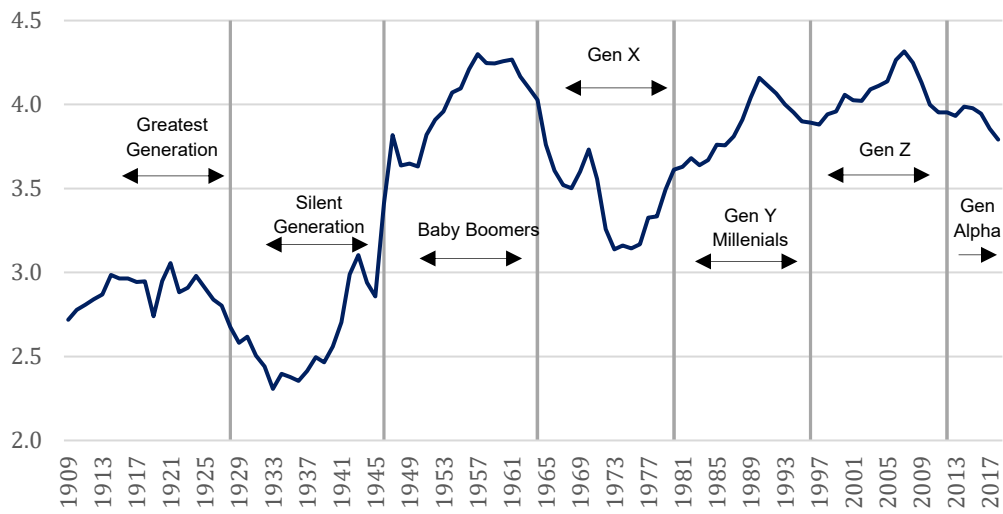
In that period, some factors may have caused the rate to decline steadily like the bursting of the dot com bubble in 2001 and the Great Recession in 2008. However, after the Great Recession, we still see a steady decline of the labor force participation rate, reaching about 63% in 2019 (Figure 4). Around 2020 and 2021, the COVID-19 pandemic happened, causing people to stay at home and not go to work in fear of getting the virus. Furthermore, many businesses were forced to close temporarily or permanently, causing a lot of job losses, and many businesses needed to adjust their working format from in-person to remote. According to the FRED, the

labor force participation rate reached 60.1% in April 2020, the lowest rate since January 1973. Furthermore, the unemployment rate in April of 2020 was 14.8%. After the pandemic, people were slowly starting to get out of their homes and started working again. Some businesses re-opened and went back to an in-person working style. Despite the economy regaining form from the pandemic, the labor force participation rate couldn't increase back to where it was before the pandemic. Between January 2022 and June 2024, the labor force participation rate has been hovering at around 62%, which is lower than the labor force participation rate during Trump's presidency (Figure 4).

Digging deeper into the measure by age group, we see a negative growth in the participation rate for ages 16 through 19 compared to other age groups after the 21st century with the decade of 2000 having a more significant effect. In January of 2001, the labor force participation rate for ages 18 through 19 was 52%. As the decade progressed, it decreased to 43.7% in 2005, which is an 8.3 percentage point difference in only 5 years. Once it reached the end of the decade at the beginning of 2011, it decreased to 34.2%, a whopping 9.5 percentage point decrease between 2005 and 2011 (Figure 3). In general, the main reason why this age group's participation rate in the labor force was lower than other age groups was the focus on education. Most people in this age group were in high school or first few years at a university, and they focused on their grades, social life, and volunteering instead of seeking full-time or part-time employment. Furthermore, we see that the trend of teens enrolling in school continued, which was much higher than back in the 90s when the overall labor force participation rate was nearing its peak. According to the Annual Social and Economic Supplement of the CPS, attending some sort of higher level of education is the main reason why teens don't go out to the labor force. Economist Steve Hipple has data showing that in 2004, 51.5% of the population within the age group was not in the labor force, of which 46.1% used school attendance as a reason for not working. Hipple showed a similar result in 2014 where school attendance accounted for teens' absence from the labor force. Hipple also illustrates that there were 15.7% of teens aged 16 through 19 enrolled in school in 1990 and 27.1% of teens ages 16 through 19 enrolled in school in 2000, which is an 11.4 percentage point increase between those 2 years. However, the decade after that had a more significant change in the shares of teens enrolling. Once 2010 hit, it increased up to 45.6%, an 18.5 percentage point increase between 2000 and 2010.

Although some periods during the 21st century have indicators of the declining labor force participation rate, there are a couple of leading factors that explain the overall decline of the labor force participation rate in all of the periods in the 21st century. One of which is also a reason why we have a growing labor force participation rate back in the 1980s. The baby boomer's generation has the largest number of births compared to other generations with a total of 75.8 million people. A higher population of baby boomers compared to other generations leads to a huge effect on the labor force participation rate when they transition to their working age. Using that concept, we can see that when the people in the baby boomer generation retire, the labor force participation rate will have a huge negative effect. According to Richard Fry, a senior researcher at Pew Research Center, there were about 28.6 million baby boomers who left the labor force due to retirement in the third quarter of 2020. Between 2011 and 2019, the overall number of baby boomers retiring has been growing every year by around 2 million people on average. However, in 2020, the growth of retiring baby boomers is at 3.2 million people, which is higher than average.

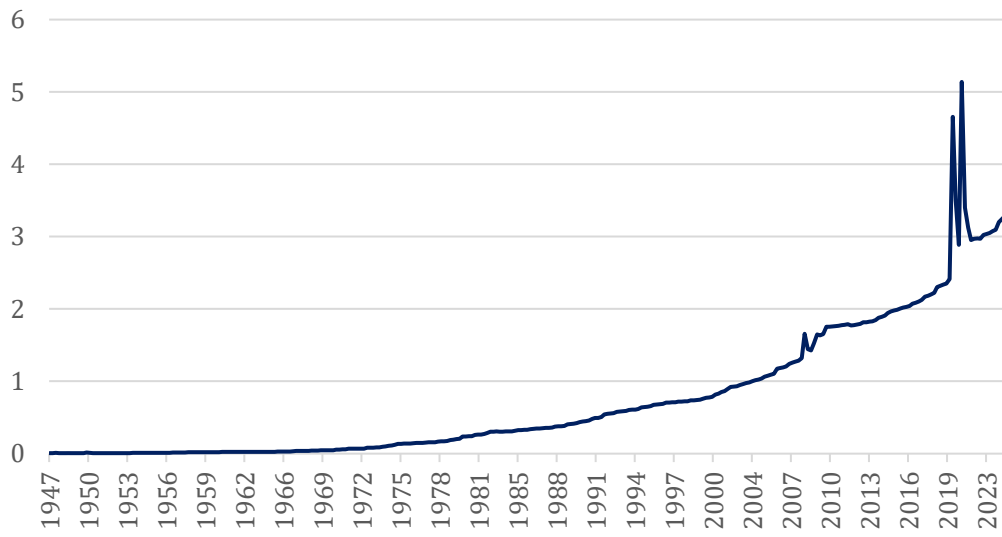
Figure 5: Birth Number (Millions)



Source: National Center for Health Statistics (CDC)

The other main factor that drives the decline of the overall labor force participation rate in the 21st century, especially during and after the pandemic, is the increase in government spending on welfare and social programs and transfer payments. Generally, when people are unemployed, employed with little pay, or leave the labor force, they tend to get some sort of money by applying to welfare programs to seek financial support. Things like unemployment benefits, childcare assistance, Medicaid, SNAP, and education programs are the main examples of welfare and social programs. Transfer payments are payments of money from the government to people without any goods or services exchanged, and welfare programs are a type of transfer payment. The reason why these are indicators of the declining labor force participation rate in recent years is that it lowers the incentive for people to seek employment. People outside of the labor force and unemployed people will find it unnecessary to look for work if they receive sufficient financial support from these welfare programs and if these programs exceed the benefits of working. Therefore, the labor force participation rate would decline, and we see that the government has been giving out a lot more transfer payments to the people in the 21st century than back when the labor force participation rate was growing. According to the FRED, the US government has seen an upward trend in transfer payment spending since 2000. The government spent around \$757 billion on transfer payments at the beginning of 2000. However, as of April 2024, the government has spent around \$3 trillion on transfer payments, a 296% increase from back in 2000 (Figure 6). The highest amount of money the government has used in transfer payments is \$4.65 trillion during the peak of the COVID-19 pandemic (Figure 6).

Figure 6: Transfer Payments to Persons (\$ Trillions)



Source: US Bureau of Economic Analysis (BEA)

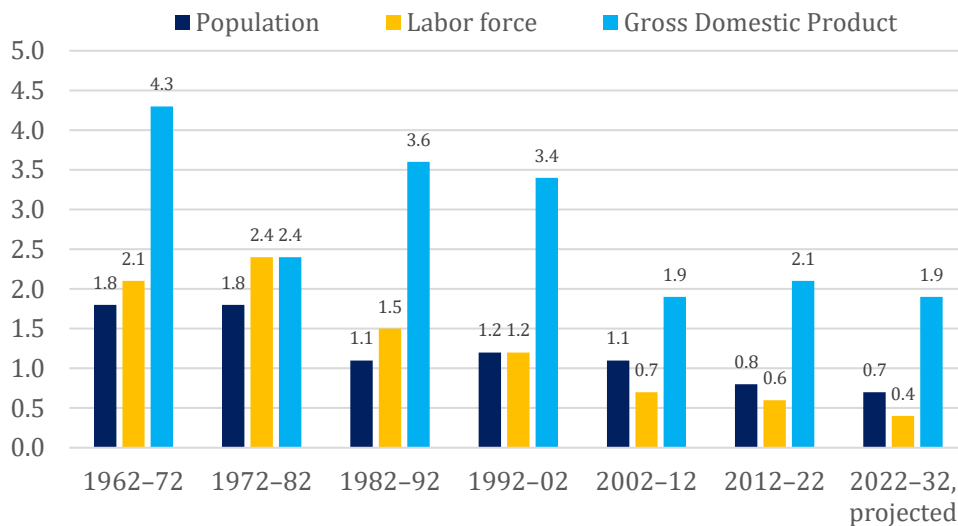
Of the \$4.65 trillion, \$2.2 trillion comes from the Coronavirus Aid, Relief, and Economic Security Act (CARES), which is a type of transfer payment that was passed in March 2020 where it provides financial assistance to families and industries to stimulate the economy during the pandemic times. These increases in yearly transfer payments will lead to more people having incentives to stop seeking employment and start gaining more transfer payments and welfare programs provided by the government, resulting in a stronger decrease in the overall labor force participation rate.

Outlook

Projections of the Overall Labor Force

As of June of 2024, the labor force participation rate is at 62.6%. Although it is a higher value than the labor force participation rate after the pandemic, it is still not as high as the rate before the pandemic or during the 80s and '90s. Furthermore, using the Bureau Labor of Statistics projections on the future of the labor force and the US population, we won't expect the participation rate to rise again soon. According to the Bureau Labor of Statistics, the civilian noninstitutional population is projected to grow from 263.9 million people in 2022 to 282.6 million people in 2032. Additionally, the population is expected to grow by .7% every year over the decade of 2022-2032, which is lower than the annual growth rate from the decade 2012-2022 of .8% (Figure 7).

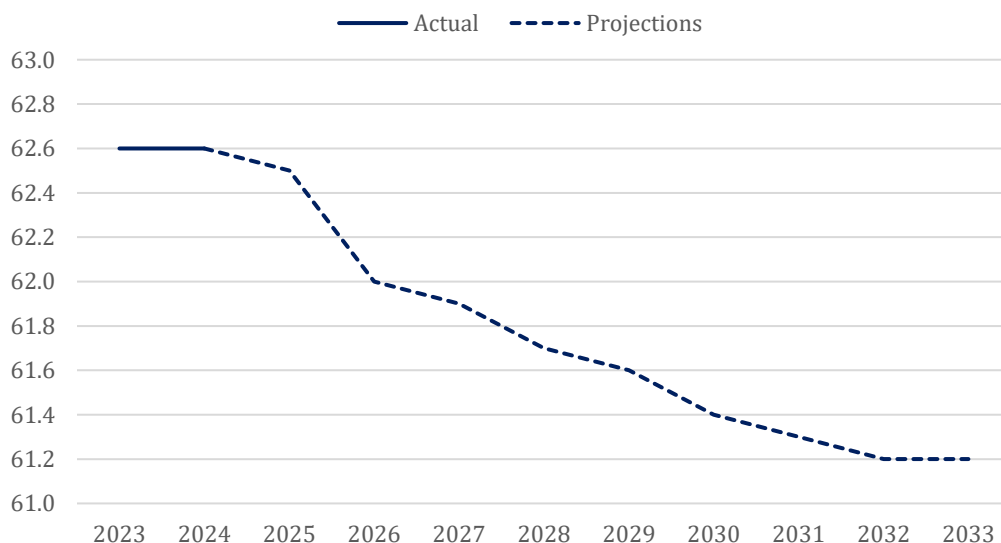
Figure 7: Annual percentage growth (%) in population, labor force, and GDP



Source: US Bureau of Labor Statistics (BLS)

According to the BLS, these lower population growth rates resulted from “fertility rates rarely breaking above the replacement rate of 2.1 births per woman since the early 1970s” and slower immigration. Since the high rate of baby boomers retiring is the main and significant driver of the recent decline of the labor force participation, the Bureau Labor of Statistics projected the participation rate to fall to 60.4% in the year 2032, which is a 2.2 percentage point difference from the labor force participation rate now (Figure 8). A factor that would counteract the baby boomer’s downward pressure on the labor force growth is their incentive to continue working even after turning 65 years old due to most financial necessities.

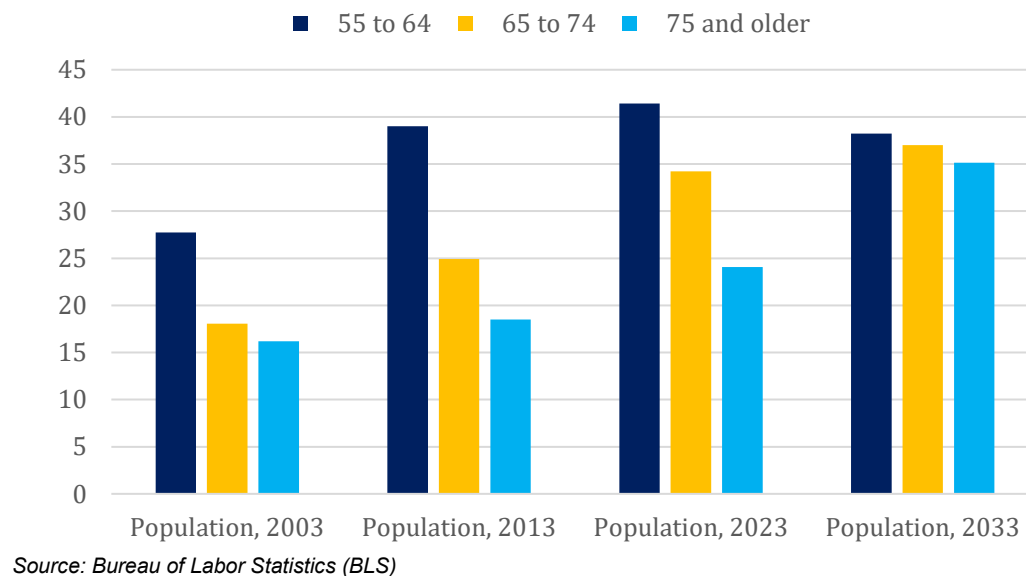
Figure 8: Labor Force Participation Rate 10-Year Projection (%)



Source: Bureau of Labor Statistics (BLS) and Association of Industry Analytics (AIA)

A higher rate of baby boomers retiring will lead to a higher share of individuals that are at or over the retirement age of 65, which is why we see the projection of the population of individuals ages 55 through 64 showing a negative growth and the projection of the population of individuals 65+ showing a positive growth (Figure 9).

Figure 9: Civilian Population by Age Groups 55 and Older (Millions)

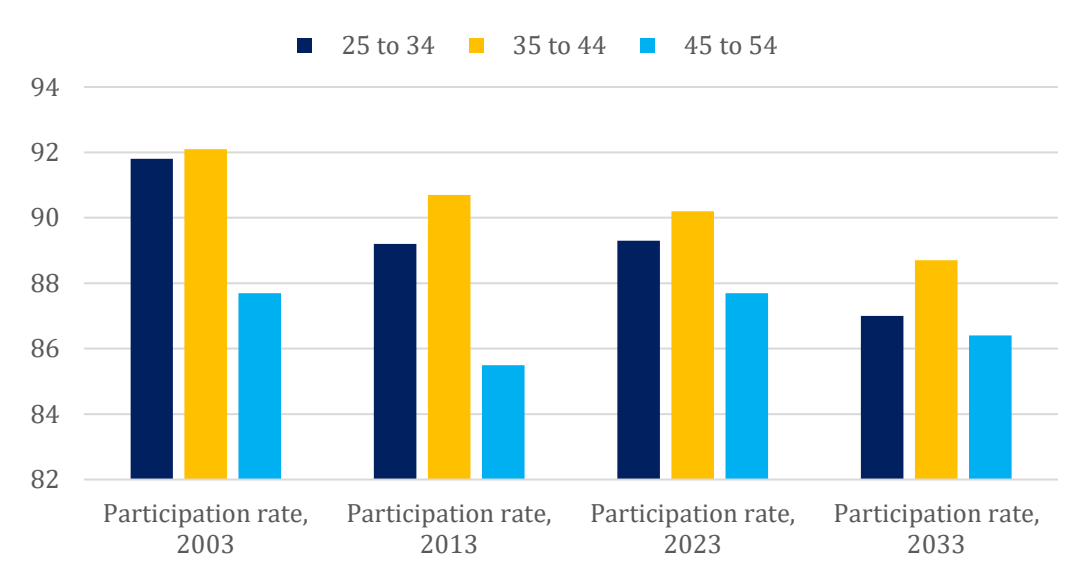


We also see that all 3 age groups will project a slight growth in the labor force participation rate in 10 years. However, the BLS projected a decrease in the population of individuals aged 55 through 64. Many factors lead to this inverse relationship, like Generation X sharing higher proportions of the age group or baby boomers planning to retire much later. We expect that all baby boomers will be aged 65+ by the end of 2032.

Projections of Prime aged Men and Women

The Bureau of Labor Statistics also projected the labor force participation rate among genders in prime and youth age groups. The participation rates of men in their prime ages for the past 3 decades have been trending down due to a decline in middle-skilled jobs and is expected to continue the decline for the next 8 years. Specifically, the participation rate of men ages 25 to 34 is expected to continue trending down from 88.7% to 86.2% (Figure 10). Similarly, the participation rates of men in ages 35 through 44 and ages 45 through 54 are projected to decline from 89.7 to 88.0 percent and from 87.1 to 85.6 percent (Figure 10).

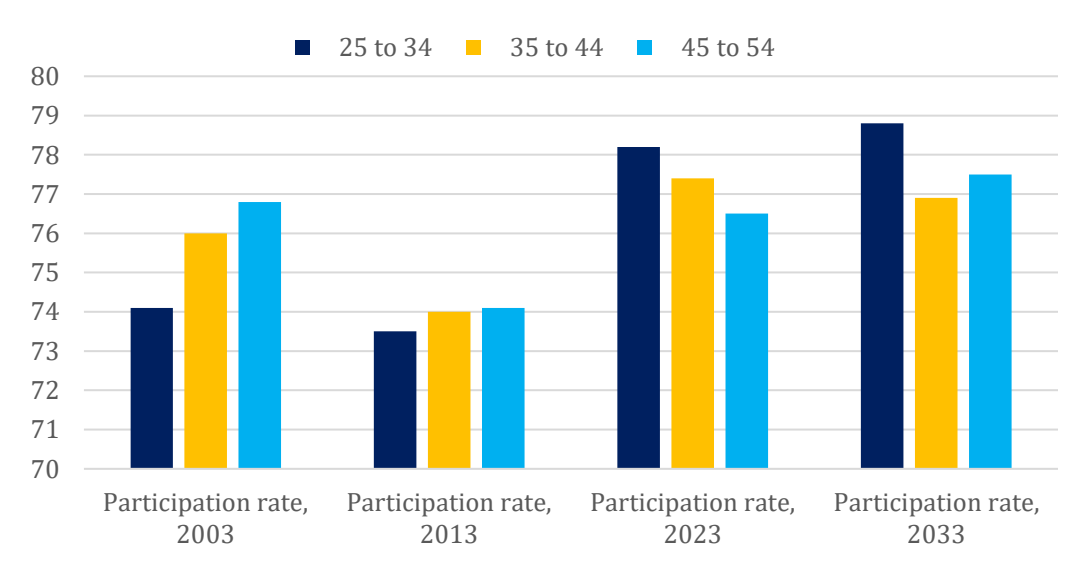
Figure 10: Labor Force Participation Rate for Men in Prime-Age Groups (%)



Source: Bureau of Labor Statistics (BLS)

While the projected participation rates of men across different age groups illustrate and share a similar downward trend, the projected participation rates of women across age groups are well-mixed. The BLS projected that the rate of women ages 25 to 34 to rise from 77.6% to 78.2%, the rate of women ages 35 to 44 to decrease from 76.3% to 75.7%, and the rate of women ages 45 to 54 to increase from 75.2% to 76.3% (Figure 11).

Figure 11: Labor Force Participation Rate for Women in Prime-Age Groups (%)



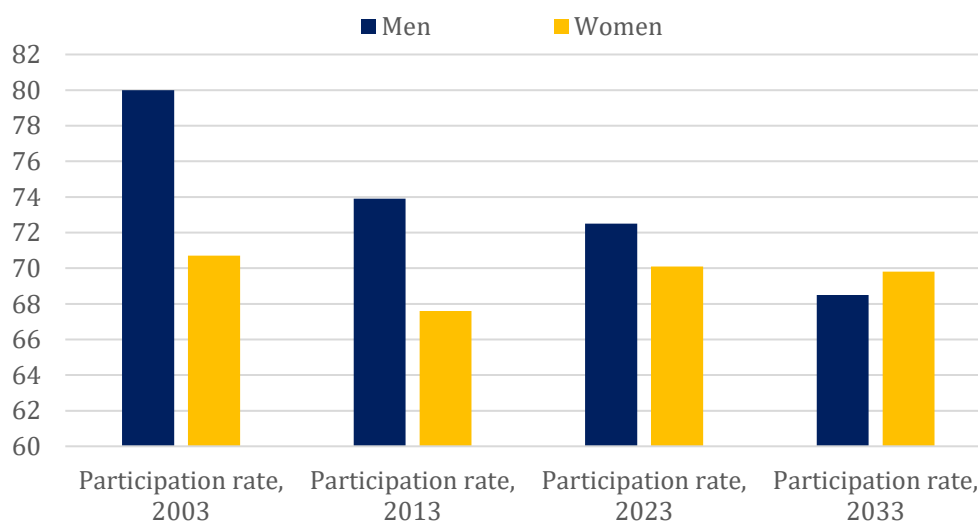
Source: Bureau of Labor Statistics (BLS)

The BLS expected that the participation rate of men in their prime ages would still be higher than that of women despite projecting a negative growth in the participation rate of prime-aged men.

Projections of Young Men and Women (20-24)

The BLS also projected the labor force participation rates of both men and women ages 20 through 24, and it follows a near identical trend to that of prime-aged men where it shows a negative growth in the last 3 decades and projects it to continue to have a negative growth. The long-term negative growth in both genders is likely due to higher college enrollments, which will delay their entry into the labor force to pursue their education. According to the National Center for Education Statistics, the total college enrollment in 2023 is 19 million people, higher than in the 80s, 90s, and early 2000s. BLS projects the participation rate of men ages 20 through 24 to fall from 73.2% in 2022 to 68.2% in 2032, and the BLS projects the participation rate of women ages 20 through 24 to fall from 68.7% in 2022 to 67.3% in 2032 (Figure 12).

Figure 12: Labor Force Participation Rate for Men and Women Ages 20 to 24 (%)



Source: Bureau of Labor Statistics (BLS)

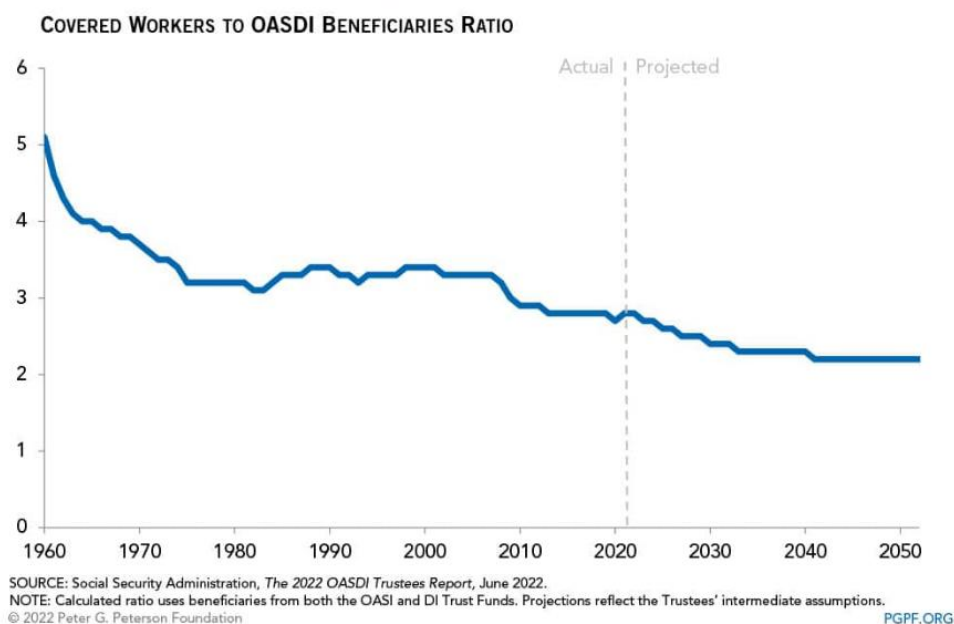
AI and the Implications on the US Economy

So, we have seen that the labor force participation rate is projected to decrease over the next 8-10 years, especially within men and its respectable age groups. What does this mean for the effect on the US economy? A shrinking labor force participation would lead to a decrease in supply of labor, which could reduce overall output and economic growth assuming if this decline in labor supply is not offset by an increase in capital or technological innovation. It can also lead to higher strain on social safety nets since there will be fewer people in the labor force contributing to payroll taxes while a lot more retirees are receiving benefits, widening a gap in funding. According to the 2022 OASDI Trustees Report, Social Security's trust funds are

projected to decrease by 2035 because of a decrease in contributing workers to beneficiary's ratio. In 1960, there were 5.1 workers per beneficiary; that ratio decreases to 2.8 in 2022 and is projected to drop to 2 by 2040.



The ratio of workers to Social Security beneficiaries has been declining for decades



Finally, a shrinking labor force can have an increase in structural issues like reduced efficiency in skills matching between recruiters and job seekers. Workers may feel discouraged and stop looking for jobs or they don't have the skill set or training needed for roles that is shaped by changes in technology. All else equal, these implications can lower productivity, slow long run economic growth, and increase funding inequality.

There's one more factor that's important to discuss when it comes to not only changes in the labor force participation, but also with technological advancements. Throughout the 2020s, there has been a huge growth in use of artificial intelligence (AI). AI tools like ChatGPT, DeepSeek, automated coding AI models, and other large language models have been growing into both casual and professional lifestyles. These tools can perform various tasks either on its own, or as a complement to human labor. However, people in the labor force are worried about AI and its integration within the workforce, displacing the tasks that they have expertise in, which can result in them being displaced and either looking for another job or simply leaving the labor force. According to Goldman Sachs, a multinational investment bank company, it predicts that 50% of jobs could be fully automated by generative AI and robotics by the end of 2045. Ray Dalio, founder of the Bridgewater Hedge Fund, warns that AI could displace workers faster than create new jobs while increasing productivity. Despite the signals and cautions of job and labor force displacement caused by AI, the effects are not the same across different occupations. In general, occupations that are involved with lots of repetitive and routine tasks are more vulnerable to AI automation since AI's technology can perform and replicate faster at a lower cost. These occupations may include some white-collar areas like data entry and market analyst, and technical roles like basic coding and software development. According to Jamie Dimon, CEO of JPMorgan Chase, he warns that JPMorgan is already automating banking tasks and projects that 20% of analytical roles will be at risk of AI replacement by 2030. There's also a

2025 World Economic Forum that reports signs that around 40% of programming tasks within technical occupations could be fully automated by 2040. On the other side, occupations that require more human interaction, difficult decision making, highly expertise, and complex hands on-projected tasks are more resistant to AI replacement. These occupations may include healthcare professionals, educators, counselors, social workers, managers, and policy analysts. These jobs rely a lot on critical thinking, heavy human interaction, and judgement, which is something AI cannot replicate. A 2023 Lancet study states that while estimating that 25% of medical administrative tasks could disappear by 2035, there are still some important tasks that require some human elements like patient communication and ethical decision making. A 2024 OECD report that only 10% of teaching tasks, primarily in early education and management, are automatable by 2040. As AI threatens specific job tasks, it may lead individuals who lack skills or AI replaced skills to exit the labor force entirely (decreases labor force participation rate) or stay in the labor force, but scouting for a less AI vulnerable role in another industry/field of study (increases labor force participation rate for that specific field of study). Despite this, the rise of AI may even increase labor demand for newly created jobs that have AI complimented tasks instead of AI substituted tasks, which may even create more opportunities for workers who are well trained and can adapt to the AI technological changes. In summary, the overall impact of the labor force by growing AI technology in jobs will not only depend on the rate of growth in AI implementation, but also on how society and industries adapt to these changes and what labor policies can be shaped for displaced workers to re-enter the labor force or continue hunting for the occupations they fully desire.

Conclusion

We have dealt with many different levels of the labor force participation rate throughout its history. Events like WWII, the Great Depression, the women's rights movement, the baby boomer generation, the Great Recession, and many more historical events helped shape a significant effect on the labor force over time. In recent history, we have seen some more indicators that helped shape labor force participation like retirees, transfer payments, teenagers, enrollment, and so on. All these indicators and events are important to learn because it helps us predict and project the future of the labor force participation rate using the knowledge and experience of these indicators. Despite expecting the labor force participation rate to drop more over the coming years based on the BLS, economists and policymakers are still studying about potential long-term effects on the labor force and finding ways to encourage more workforce engagement and hopefully follow the opposite of what the BLS projects.

Sources

- (1) U.S. Bureau Of Labor Statistics. "Table A-15. Alternative Measures of Labor Underutilization." Bls.gov, 2018, www.bls.gov/news.release/empst.t15.htm.
- (2) FDR Library "Great Depression Facts - FDR Presidential Library & Museum." Fdrlibrary.org, Franklin D. Roosevelt Presidential Library and Museum, 2016, www.fdrlibrary.org/great-depression-facts.
- (3) *Ibid*
- (4) Bussing-Burks, Marie. "Women and Post-WWII Wages." NBER, Nov. 2002, www.nber.org/digest/nov02/women-and-post-wwii-wages.
- (5) Findings from the CONDITION of EDUCATION 1995 the EDUCATIONAL PROGRESS of WOMEN NO. 5.

<https://www.bls.gov/opub/mlr/2004/06/art2full.pdf>

<https://www.fdrlibrary.org/great-depression-facts#:~:text=throughout%20the%201920s.-,At%20the%20height%20of%20the%20Depression%20in%201933%2C%2024.9%25%20of,eco,nomic%20disaster%20in%20American%20history.>

<https://www.bls.gov/news.release/pdf/ecopro.pdf>

<https://www.brookings.edu/articles/whos-missing-from-the-post-pandemic-labor-force/>

<https://www.forbes.com/sites/qai/2023/01/25/unemployment-is-low-but-so-is-the-labor-force-participation-rate---whats-going-on-in-the-us-labor-market/>

<https://www.bls.gov/opub/mlr/2018/beyond-bls/down-and-down-we-go-the-falling-us-labor-force-participation-rate.htm>

<https://www.frbsf.org/research-and-insights/publications/economic-letter/2023/08/how-far-is-labor-force-participation-from-its-trend/#:~:text=Most%20of%20the%20drop%20in,driven%20primarily%20by%20population%20aging.>

<https://nces.ed.gov/pubs/96768.pdf>

<https://www.nber.org/digest/nov02/women-and-post-wwii-wages>

<https://aspe.hhs.gov/reports/personal-responsibility-work-opportunity-reconciliation-act-1996>

<https://www.pewresearch.org/short-reads/2020/11/09/the-pace-of-boomer-retirements-has-accelerated-in-the-past-year/>

https://www.bls.gov/opub/mlr/2017/article/teen-labor-force-participation-before-and-after-the-great-recession.htm#_edn2

<https://www.bls.gov/opub/mlr/2023/article/labor-force-and-macroeconomic-projections.htm#:~:text=The%20labor%20force%20projections%20serve,%2C%20ultimately%2C%20to%20the%20total.>

<https://www.pgpf.org/article/the-ratio-of-workers-to-social-security-beneficiaries-is-at-a-low-and-projected-to-decline-further/>

<https://www.bls.gov/opub/btn/volume-4/people-who-are-not-in-the-labor-force-why-arent-they-working.htm>

<https://www.forbes.com/sites/jackkelly/2025/04/25/the-jobs-that-will-fall-first-as-ai-takes-over-the-workplace/>