Backgrounder

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Hard at Work: Why the Unemployment Rate Accurately Reflects the Strength of the Labor Market

James Sherk

The economy is growing steadily, and unemployment stands at 4.6 percent, well below historical averages. Most other signs also point to the strength of the U.S. economy.

Even so, some economists claim that these statistics simply mask an underlying weakness in the labor market.[1] These critics argue that the economy has created relatively few net new jobs during this recovery, despite high growth and low unemployment. They argue that unemployment has fallen so low only because a smaller portion of the population is looking for work. (People not searching for jobs do not count in the unemployment rate.) Consequently, instead of the economy being near full employment, the reduced number of job seekers shows that considerable slack remains in the job market and that the economy is performing well below its potential. Many political commentators in turn then argue that this shows that tax cuts do not promote economic growth or job creation.

However, a deeper analysis of the data reveals that a lack of available jobs does not explain why more and more Americans have chosen not to work. Workers have not stopped looking for work because of poor job prospects. In fact, older Americans have entered the workforce in record numbers. Changing demographics explain part of the lower participation rates. Beyond that, much of the decline in labor force participation (LFP) rates—the proportion of the population either in or actively looking for work—can be attributed to the rising numbers of younger Americans opting to invest in their future by continuing

Talking Points

- The current unemployment rate of 4.6 percent is very low by historical standards and falls even below what most economists consider the normal rate for a strong economy.
- The decrease in labor force participation is not the result of Americans failing to find jobs and then giving up their search. Instead, it largely tracks the increase in the percentage of the population reporting that they do not want employment.
- An aging population and rising school attendance, not a weak economy, are major contributors to the increase in the number of people not currently wanting employment.
- LFP rates for those 55 and above have gone up as incentives for older Americans to work have increased, indicating that jobs are available for those who want them.

This paper, in its entirety, can be found at:
www.heritage.org/research/labor/bg1942.cfm

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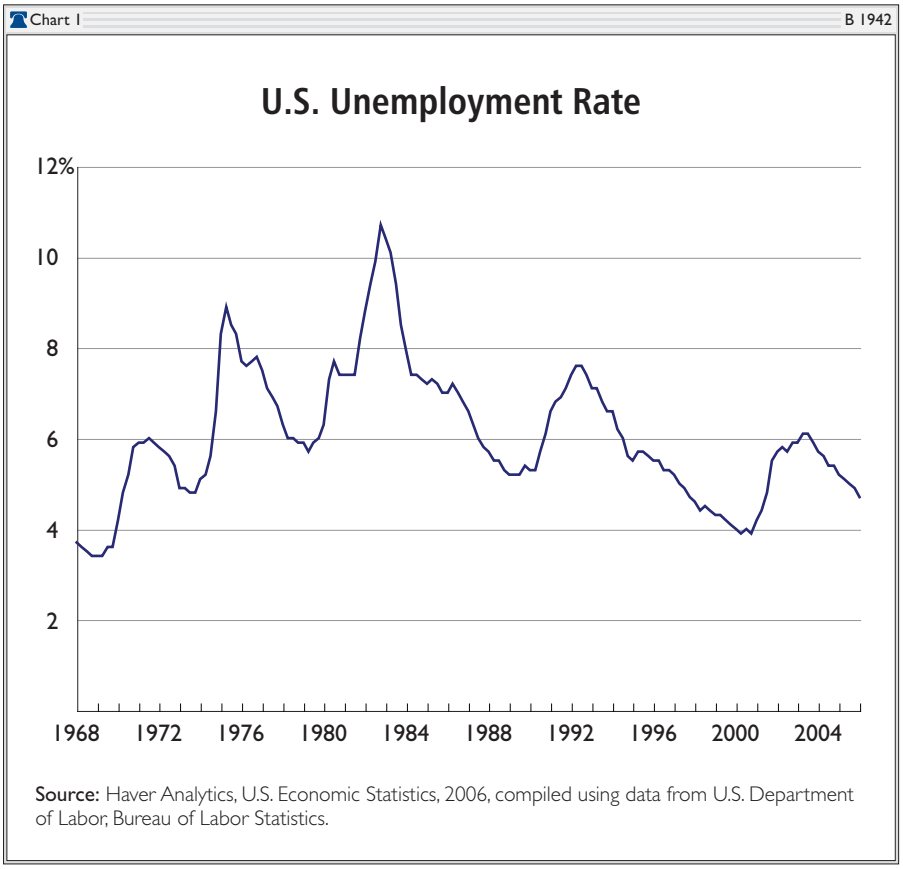
their education rather than entering the workforce.

Arguments that poor job prospects have discouraged millions of Americans, causing them to drop out of the workforce, rely on implausible projections of labor force participation growth and ignore the job gains posted by Americans over the age of 55. While the job market is not as tight as it was in the late 1990s, the slight fall in LFP rates does not indicate that low unemployment numbers misstate job opportunities or the strength of the labor market.

Contrary to the pessimists' concerns, the unemployment rate accurately gauges the opportunities available to American workers. The American economy is strong.

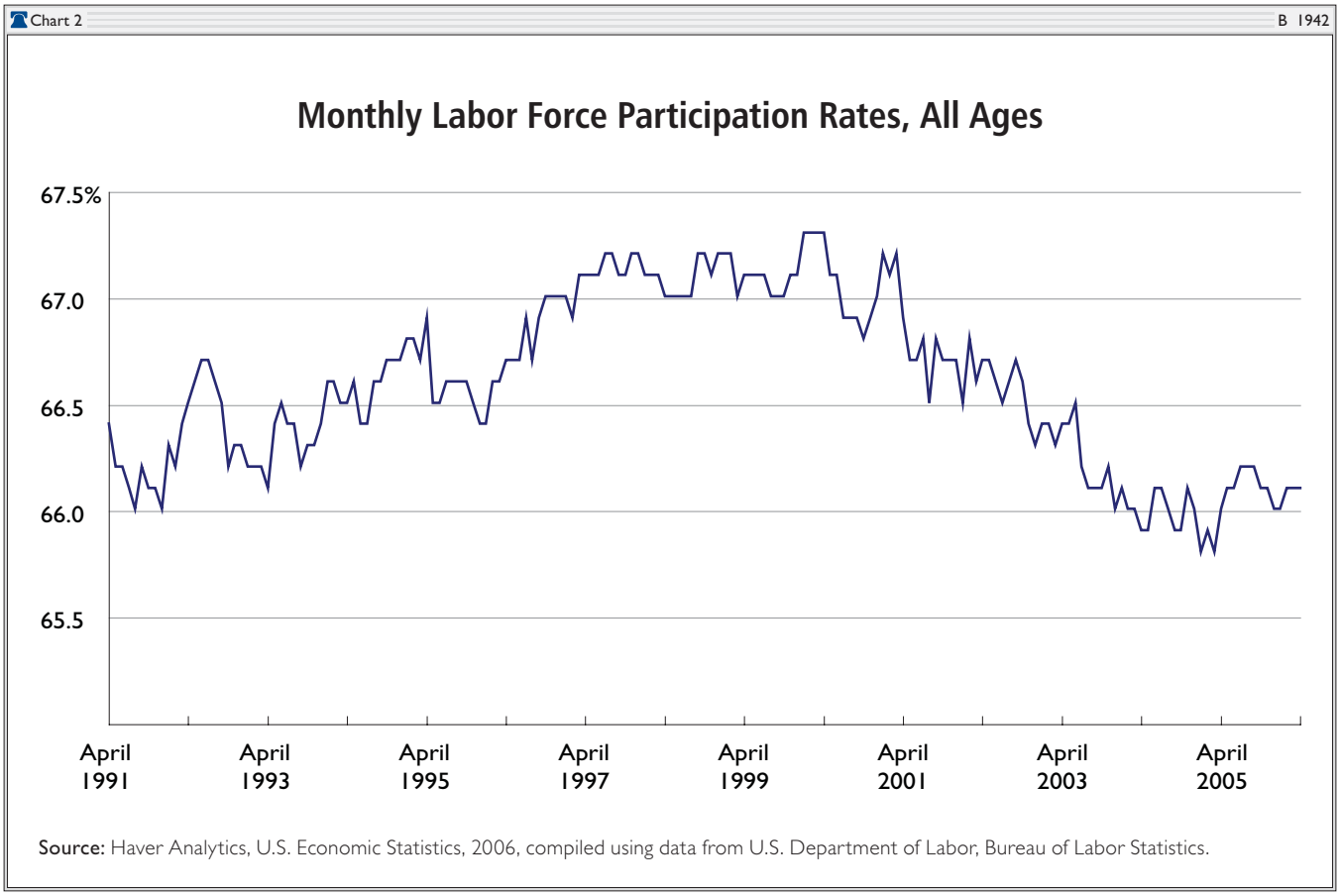


Unemployment Rate vs. Labor Force Participation Rate

The U.S. unemployment rate has fallen well below recent historical averages, dropping to 4.6 percent in May 2006. With the exception of the Internet bubble in the late 1990s, the unemployment rate has not dropped below this level since March 1970.[2] By comparison, the unemployment rate averaged 5.7 percent in the 1990s and 7.2 percent in the 1980s.[3] At 4.6 percent, unemployment is beneath even what most economists consider the normal capacity for a strong economy, and it indicates that very few Americans looking for work cannot find it.

Some economists, however, do not see the job market in such a positive light.[4] They argue that new job creation during the current recovery from the 2001 recession has lagged below historical rates during previous recoveries and that unemployment has fallen dramatically because fewer Americans are looking for work. As a result, they say, LFP rates

1. For example, see Katharine Bradbury, "Additional Slack in the Economy: The Poor Recovery in Labor Force Participation During This Business Cycle," Federal Reserve Bank of Boston *Working Paper* No. 05–2, July 2005, at *papers.ssrn.com/sol3/papers.cfm?abstract_id=887766* (June 5, 2006). See also Jared Bernstein and Lee Price, "An Off-Kilter Expansion: Slack Job Market Continues to Hurt Wage Growth," Economic Policy Institute *Briefing Paper* No. 164, September 2, 2005, at *www.epi.org/content.cfm/bp164* (June 5, 2006).
2. U.S. Department of Labor, Bureau of Labor Statistics, "Labor Force Statistics from the Current Population Survey," at *www.bls.gov/cps/home.htm* (June 7, 2006).
3. *Ibid.*
4. See Lee Price, "The Boom That Wasn't," Economic Policy Institute *Briefing Paper* No. 168, updated March 2006, at *www.epinet.org/briefingpapers/168/bp168.pdf* (June 5, 2006).



decreased by 1.0 percentage point between 2000 and 2005, indicating that fewer Americans sought jobs.

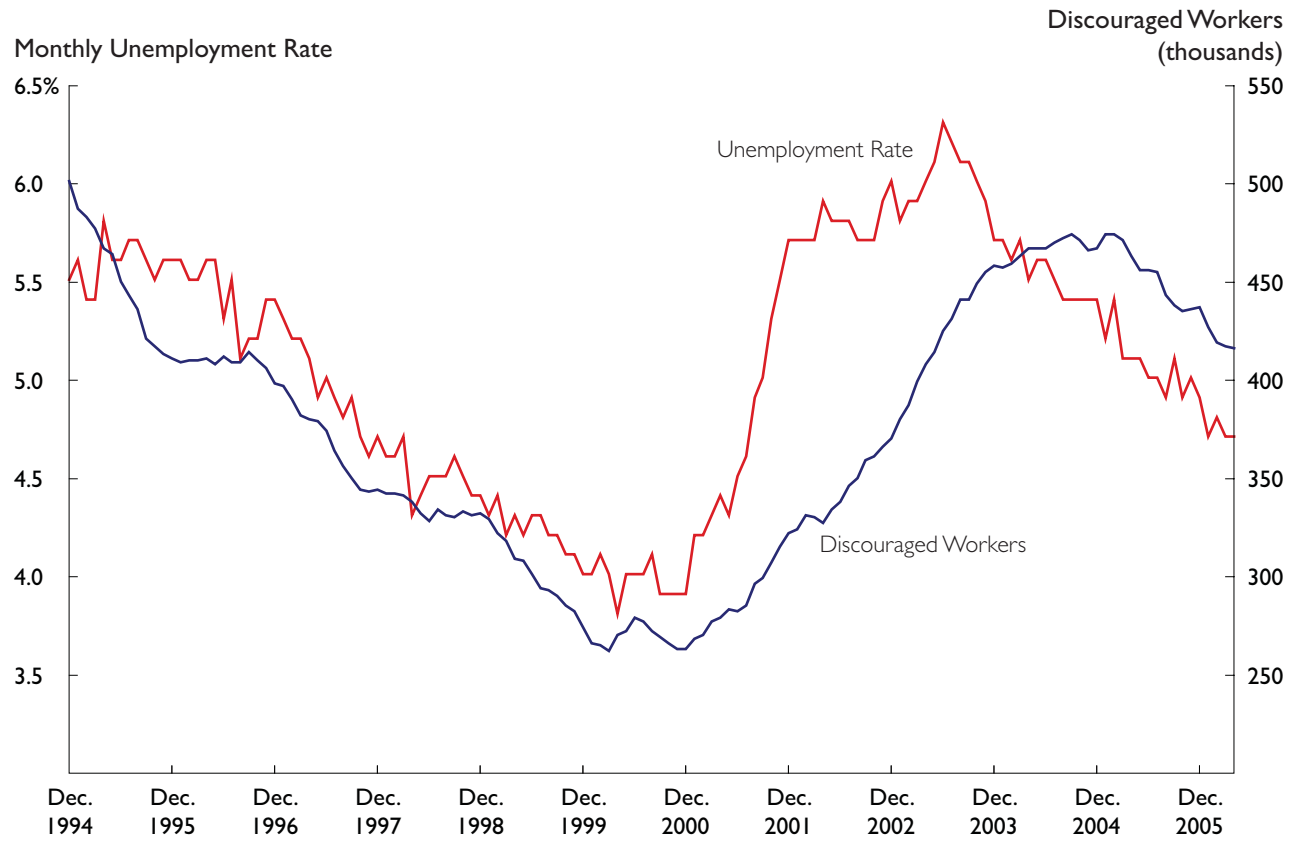
These economists believe that the unemployment rate does not accurately portray the weakness of the job market. If low unemployment rates indicate economic strength, the millions of individuals who left the labor force ought to have reentered and found jobs. Instead, considerable "slack" remains in the labor market due to the inability of potential workers to find suitable work. According to one study by an economist at the Boston Federal Reserve Bank, if LFP rates had recovered as they usually do after recessions, the ranks of the unemployed would have swelled by between 1.5 million and 5 million people as more people reentered the labor market, and the unemployment rate would have risen by 1 to 3 percentage points.[5] Instead of being unusually low, unemployment would stand today at levels unseen since the early 1980s.

So what is really happening in the economy? Are these critics right? Are millions of discouraged Americans dropping out of the labor force because they cannot find work? Or is a strong recovery creating jobs for virtually every American who wants one?

The answers lie in finding out why so many Americans have left the labor force. If they have stopped looking for work because of slim job prospects, the unemployment rate does in fact paint a misleading picture. On the other hand, if Americans have left the labor force for reasons largely unrelated to possible job opportunities, the low unemployment rate may indicate the opposite—a strong economy. Job creation rates may have fallen

5. Bradbury, "Additional Slack in the Economy."

Chart 3 B 1942



Note: The monthly unemployment rate is seasonally adjusted. For the number of discouraged workers, a 12-month moving average is used to smooth out seasonal fluctuations.

Source: Haver Analytics, U.S. Economic Statistics, 2006, compiled using data from U.S. Department of Labor, Bureau of Labor Statistics.

below average, but employers cannot create jobs without workers to fill them.

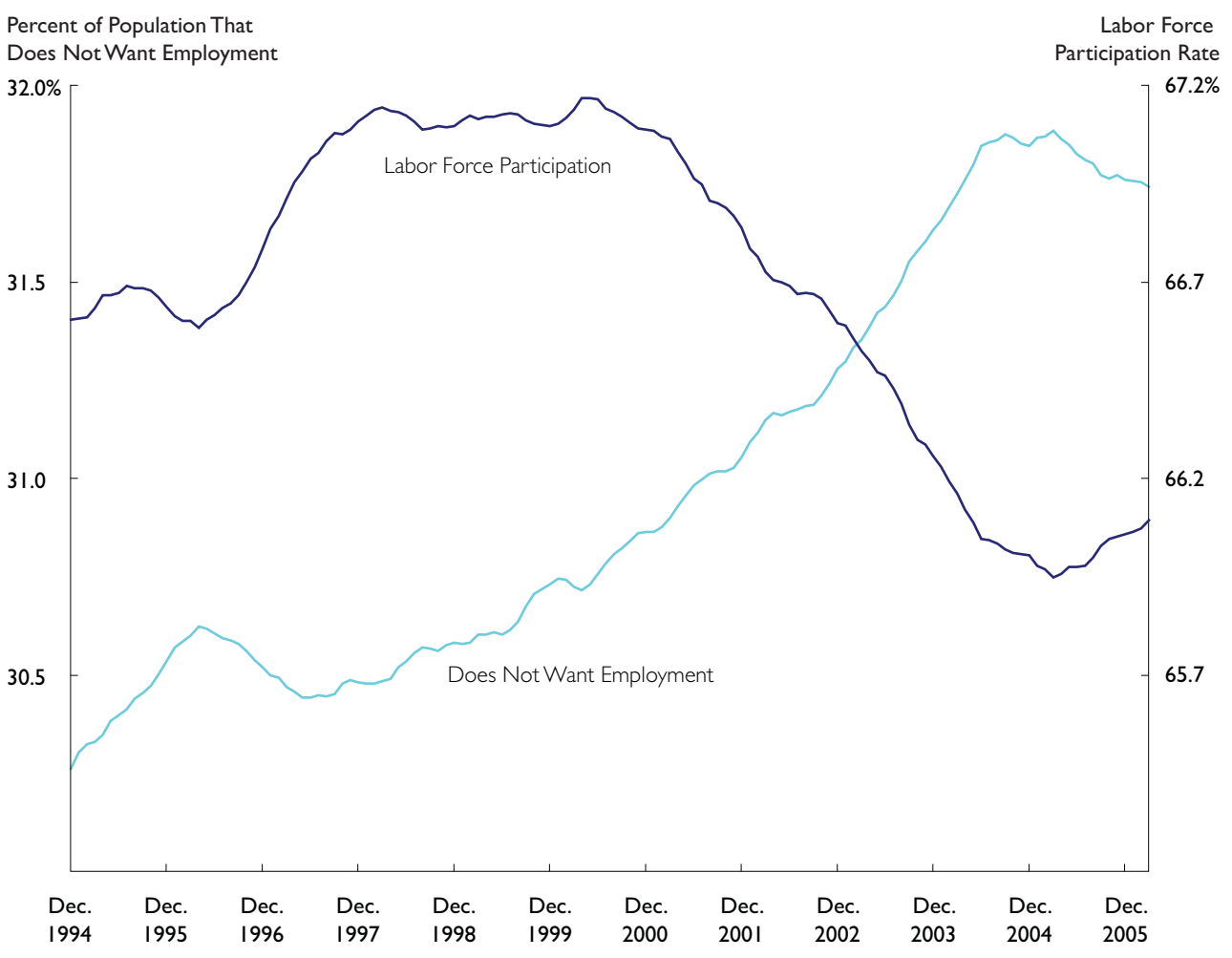
A closer examination reveals that the fall in LFP rates has little to do with weak job prospects.

Choose Not to Work

The simplest way to find out why workers have left the labor force is to ask them. The U.S. Department of Labor asks people not looking for work whether they stopped searching because they believed no work was available for them or because they tried but could not find work. Such individuals are classified as "discouraged" workers. If the unemployment rate fell because workers gave up trying to find jobs and left the labor force, then the number of discouraged workers would rise along with the decrease in unemployment.

Chart 3 shows both the unemployment rate and the number of discouraged workers in the economy. The number of discouraged workers spiked when the recession hit and remained at moderately high levels until the end of 2004, when it fell along with the unemployment rate. For the past year and a half, both the unemployment rate and the number of discouraged workers have fallen. Rather than a weak job market driving workers to abandon

Chart 4 B 1942



Note: Both series are presented as 12-month moving averages to smooth out seasonal fluctuations.

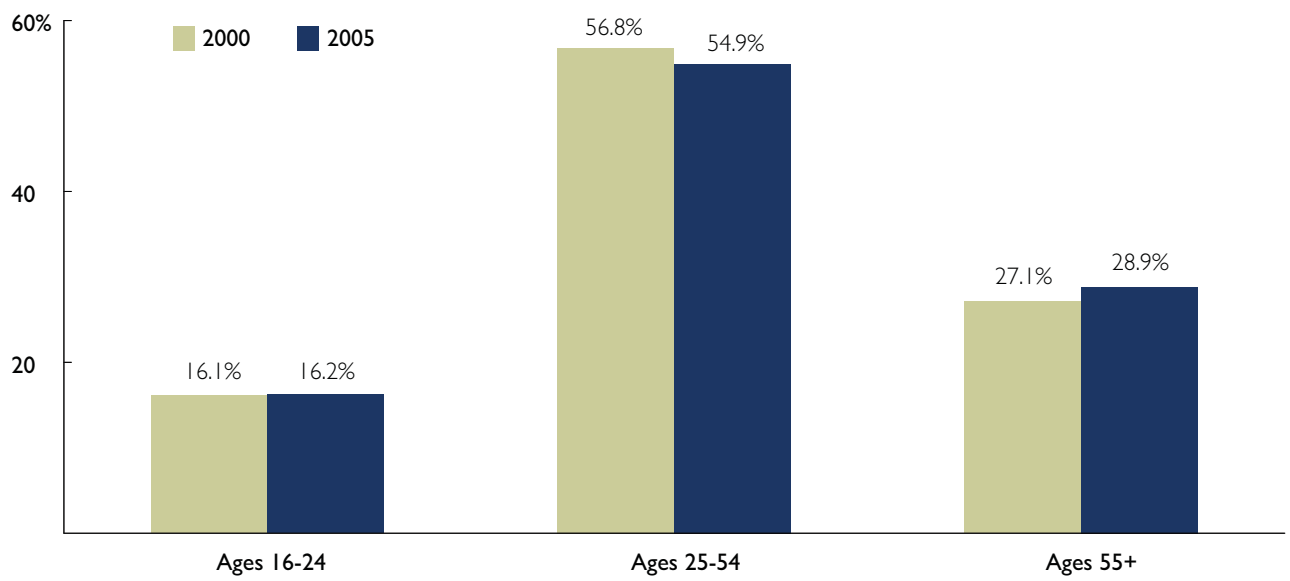
Source: Haver Analytics, U.S. Economic Statistics, 2006, compiled using data from U.S. Department of Labor, Bureau of Labor Statistics.

their job search, the strong economy has persuaded previously discouraged workers that they have real job opportunities.

If workers can find jobs, why has the labor force participation rate fallen? The answer is simple: Fewer Americans want to work. When individuals currently not working are asked by the Bureau of Labor Statistics whether they want jobs, an increasing proportion are reporting that they do not.

As Chart 4 demonstrates, LFP rates fell as the proportion of the population not looking for work rose. Between 2000 and 2005, the proportion of Americans reporting that they did not want employment rose by 0.9 percentage point, almost exactly the size of the 1.0 percentage point decrease

Chart 5 B 1942



*Adult civilian population is defined as the civilian noninstitutional population 16 year of age and older.

Source: Haver Analytics, U.S. Economic Statistics, 2006, compiled using data from U.S. Department of Labor, Bureau of Labor Statistics.

in labor force participation rates.[6] Simply asking workers about their choices reveals that labor force participation rates have fallen because they do not want jobs, not because they cannot find jobs.

While the decrease in labor force participation rates clearly does not result from poor job prospects, the question remains: Why have so many Americans chosen not to work? Does it stem from weakness in the job market? Looking closely at the numbers reveals no evidence for this.

Demographic Changes

Labor force participation rates vary dramatically by age. Far fewer younger and older Americans work than those in middle-age brackets. Younger workers are often in school or receiving parental support and thus not in the job market, while older workers may be retired and often can draw on substantial savings. Consequently, if the proportion of middle-aged Americans in the population falls, labor force participation rates would be expected to fall as well, irrespective of economic conditions.

Chart 5 shows that this happened between 2000 and 2005. The proportion of the working-age population between 25 and 54 years of age fell by almost 2 percentage points, while the proportion of the population 55 years and older rose by a similar amount.[7]

Unsurprisingly, as the population ages and a greater number of Americans become eligible for retirement, fewer people will participate in the workforce, irrespective of how the economy performs. Any analysis of a decrease in labor force participation rates should control for demographic changes.

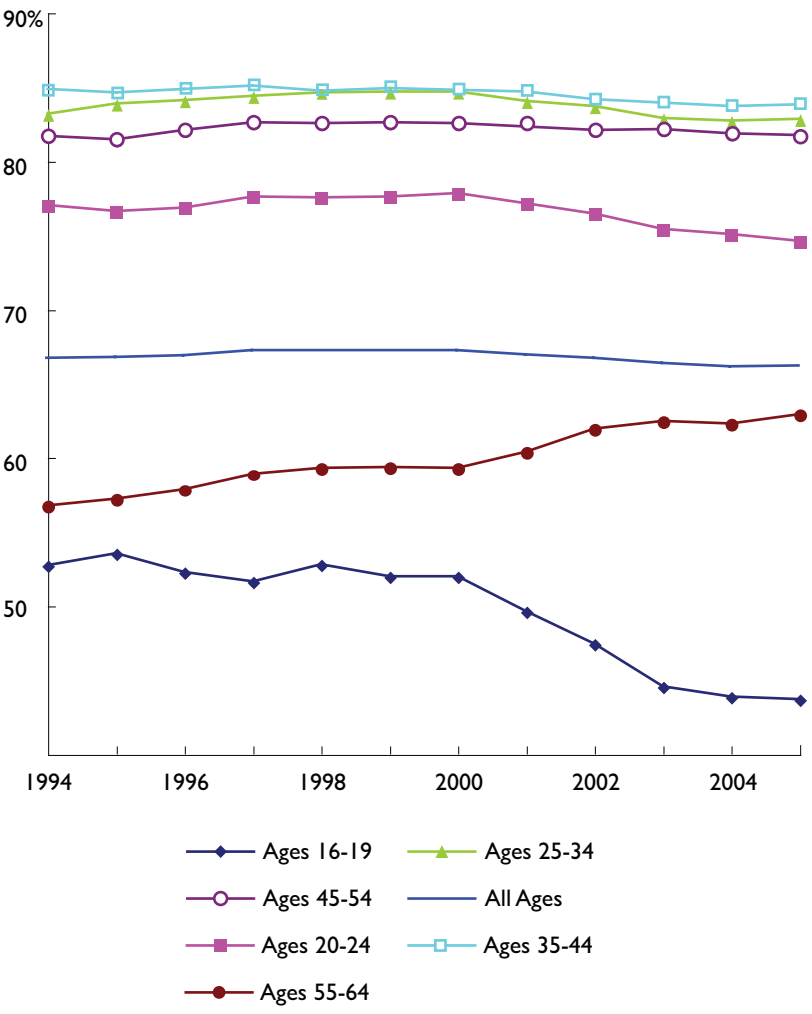
6. Center for Data Analysis calculations based on Haver Analytics, U.S. Economic Statistics, 2006, compiled using data from U.S. Department of Labor, Bureau of Labor Statistics.
7. *Ibid.*

The change in the total LFP rate can be decomposed into the change due to shifts in the population between age groups and changes in the LFP rates of these different age groups. Making this decomposition reveals that demographic changes in the American population account for 0.3 of the 1.0 percentage point reduction in LFP rates since 2000, while 0.7 percentage point came from decreases in the participation rates of individual age groups.[8] Thus, at least 30 percent of the decline in LFP rates results from a factor entirely independent of the job market's strength.

Changes in LFP Rates Within Age Groups

An aging population does not explain the entire drop in labor force participation rates; however, LFP rates have changed within age groups as well. Chart 6 shows LFP rates for each age group since 1994.[9] Since the recession, labor force participation has not decreased uniformly across the board, but differs dramatically across age groups. Younger workers, especially those under 20, have decreased their labor force participation far more than middle-aged workers have, while workers 55 and older have actually increased their participation rates.

Chart 6 B 1942



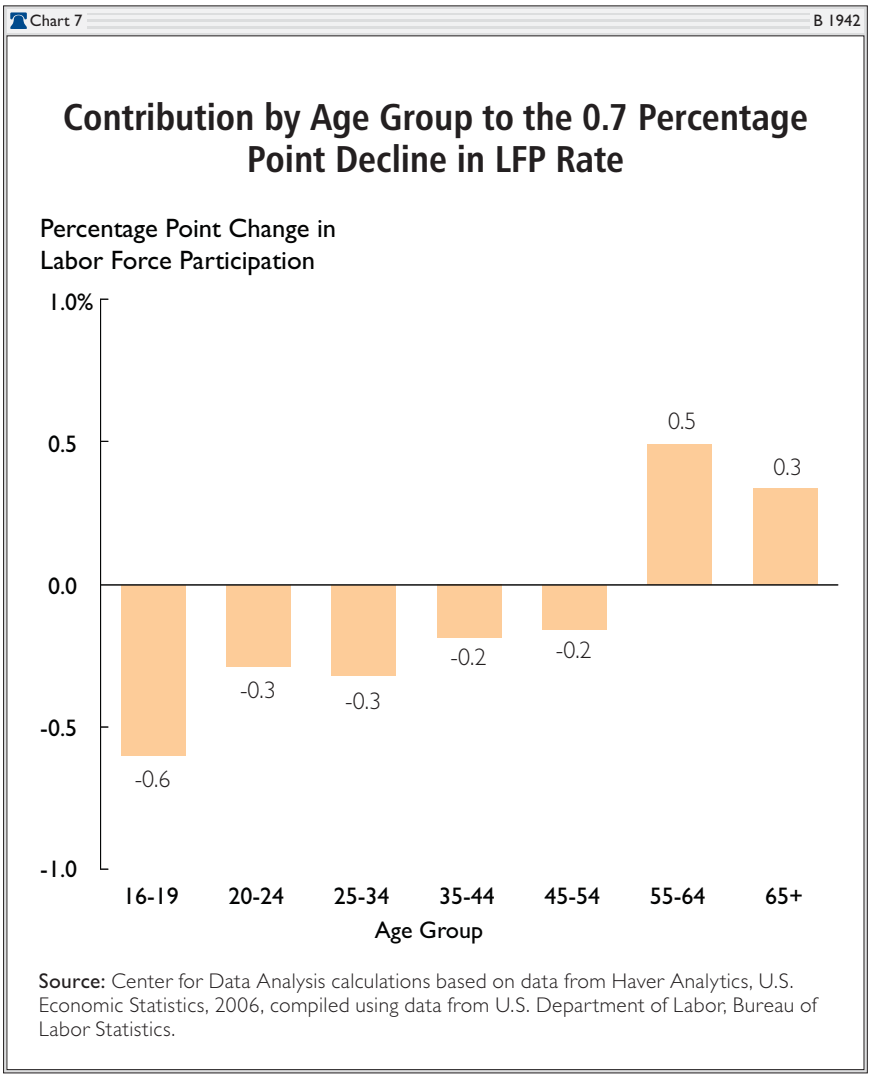
Note: Workers 65 years of age and older are omitted in order to maintain the scale of the graph. Between 2000 and 2005 their LFP rate rose 2.2 percentage points, from 12.9 percent to 15.1 percent.

Source: Haver Analytics, U.S. Economic Statistics, 2006, compiled using data from U.S. Department of Labor, Bureau of Labor Statistics.

Chart 7 shows the decline since 2000 in aggregate LFP rates that comes from changes in the participation rates of each age group, controlling for shifts in the population.[10] As the chart shows, the higher participation rates for workers 55 and older more than offset the decline among workers ages 25–54.

8. *Ibid.* For a technical explanation of this calculation, see the Appendix.
9. Center for Data Analysis calculations based on Haver Analytics, U.S. Economic Statistics.
10. *Ibid.* For an explanation of the methodology, see the Appendix.

It is the large drop in youth labor force participation that explains most of the fall in LFP rates. Between 2000 and 2005, the decreased labor force participation rates of 16–24-year-olds accounted for 0.9 point of the total 0.7 point decrease. That is to say, if youth LFP rates had not declined, LFP rates would have increased slightly. Understanding why Americans have opted out of the workforce requires understanding why so many teens and young adults have chosen not to work.



Falling Youth Participation

Since the collapse of the Internet bubble and the recession, younger workers have left the workforce in increasing numbers. If the LFP rates of 16–24-year-olds had remained at their 2000 levels, the labor force would have increased by over 2 million workers.[11] Today, a smaller proportion of teenagers work than at any point since the Department of Labor began collecting statistics on labor force participation.[12] Economists know that economic fluctuations have a particularly strong effect on youth labor force participation decisions. Dramatically lower youth LFP could indicate underlying economic weakness that is not reflected in other data.

However, the decline in youth LFP rates is virtually the only evidence that supports this notion. In a study released in 2006, researchers at the Federal Reserve Bank of Chicago found that during this recovery, employment has risen rapidly in sectors of the economy that hire large numbers of teenagers. They also found little evidence to suggest that demand for teenage workers has fallen.[13]

Additionally, while the labor force participation rates of 16–24-year-olds have fallen by 5.0 percentage points since 2000, the proportion of youth reporting that they do not want a job right now has risen by 4.9 percentage points.[14] As with the population as a whole, American youth appear to be

11. Center for Data Analysis calculations based on Haver Analytics, U.S. Economic Statistics.
12. *Ibid.*
13. Daniel Aaronson, Kyung-Hong Park, and Daniel G. Sullivan, "The Decline in Teen Labor Force Participation," Federal Reserve Bank of Chicago *Economic Perspectives*, Vol. 30 (1st Quarter 2006), at *www.chicagofed.org/publications/economicperspectives/ep_1qtr2006_part1_aaronson_et_al.pdf* (May 10, 2006).

working in smaller numbers by choice, not because of poor job prospects.

Increased Schooling

Enrollment in school is one obvious reason for youth to choose not to work, and school enrollment rates have risen noticeably since 2000. Between 2000 and 2004, the proportion of 16–17-year-olds in high school rose by 1.3 percentage points, while the proportion of 18–24-year-olds enrolled in college full-time increased by 2.6 percent.[15] Today, 890,000 more youth are enrolled in college than if enrollment rates had remained at 2000 levels. Understandably, students are far less likely to work than are youth who are not in school.

Examining teenagers, Federal Reserve researchers found that between 1997 and 2005, LFP rates for teenagers in school declined more than twice as rapidly as LFP rates for those not enrolled in school.[16] They further found that the increase in school enrollment and the decrease in work activity among those in school accounted for over 80 percent of the decrease in teen labor force participation between those years.[17]

Rising school enrollment and a decreasing propensity for students to work appears to explain much, although not all, of the decrease in youth labor force participation rates. This may explain low job growth rates, but it hardly signals bad news for the economy. Students studying in school may give up income today but become more productive in the future. Young Americans putting off work to invest in their future can only be a positive factor for America's economy.

Rising Participation of Older Americans

While the education-driven fall in youth labor force participation explains most of the total decrease in LFP rates, the fact remains that the labor force participation of 25–54-year-olds has fallen slightly as well. Full-time students not taking on a job cannot explain this decrease. Could this signal weakness in the job market?

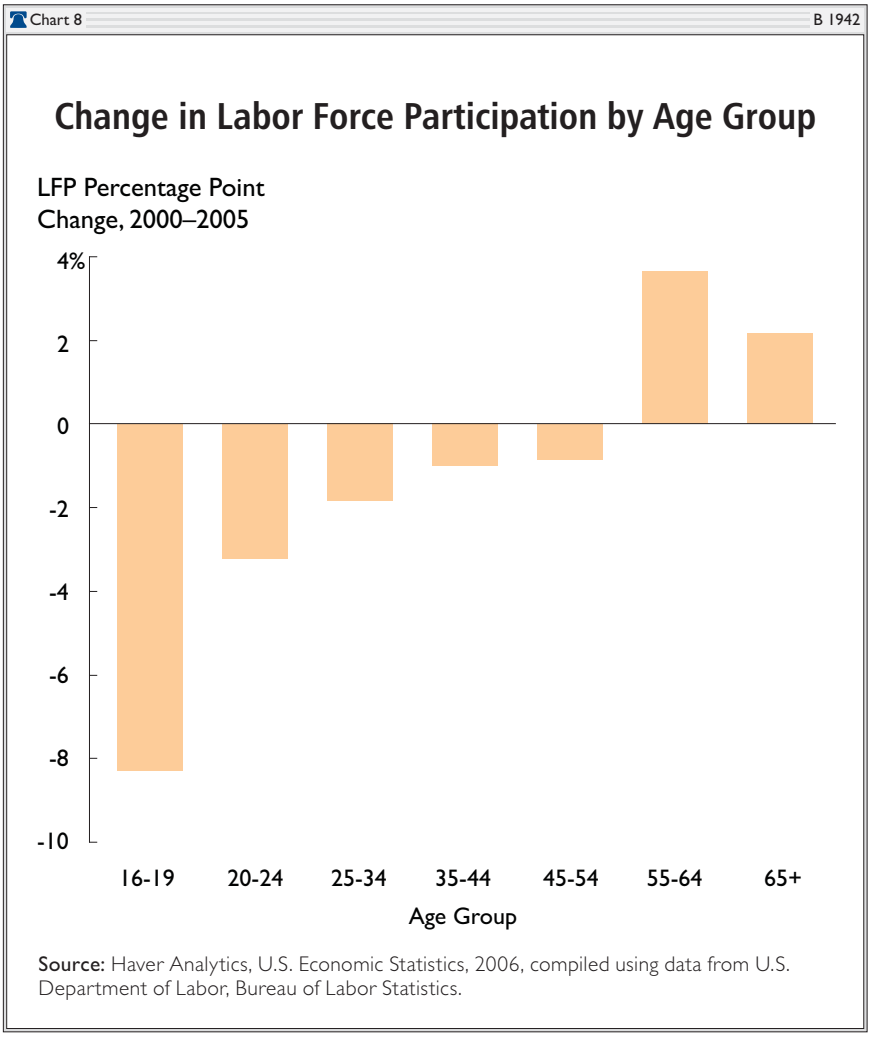
If it does, this is an unusual weakness that does not affect Americans over the age of 54. Chart 8 shows that the labor force participation rates for Americans 55 years of age and older have risen substantially since 2000, far faster than the decrease in employment among 25–54-year-olds.[18] This continues a trend of rising LFP rates for older workers that started in the late 1980s, moderated following the 1990–1991 recession, and then picked up again in the mid-1990s.[19]

The Federal Reserve Bank of Dallas examined this trend and concluded that it is a result of reduced taxes on Social Security benefits, longer life expectancy, and increasing enrollment in defined contribution pensions, which keep increasing in value as workers continue working, unlike many defined benefit plans.[20] Older Americans continue to work because these changes in the work environment have increased their incentives to work.

If a weak job market was causing workers to drop out of the labor force, it would be expected to affect

14. Center for Data Analysis calculations based on Haver Analytics, U.S. Economic Statistics.
15. Center for Data Analysis calculations based on U.S. Bureau of the Census, Current Population Survey, October 2000 and October 2004, Table 1 and Table 9, at *www.census.gov/population/www/socdemo/school.html* (April 30, 2006). Data for 2005 had not been made available as of May 2006.
16. Based on data from Aaronson *et al.*, "The Decline in Teen Labor Force Participation," p. 6, Table 5 (2006). Between 1997 and 2005, the LFP rate of teenagers enrolled in school declined by 6.7 percentage points to 35.8 percent, a drop of 15.9 percent. The LFP rate of teenagers not in school dropped by 5.4 percentage points to 65.17 percent, a decrease of 7.6 percent.
17. *Ibid.*
18. Center for Data Analysis calculations based on Haver Analytics, U.S. Economic Statistics.
19. *Ibid.*
20. Helen McEwen, Pia Orrenius, and Mark Wynne, "Opting Out of Work: What's Behind the Decline in Labor Force Participation?" Federal Reserve Bank of Dallas *Southwest Economy*, Issue 6 (November/December 2005), at *www.dallasfed.org/research/swe/2005/swe0506a.html* (June 5, 2006).

both older and middle-aged workers. Instead, the evidence shows that older Americans are responding to new incentives to keep working and have found no difficulty in doing so.



Limitations of the Bradbury Study

Why do many commentators believe that falling labor force participation rates signal a weak job market if the data provide so little support for the idea? This belief appears to have originated from a widely cited preliminary look at the evidence.

In 2005, Katharine Bradbury, a researcher at the Federal Reserve Bank of Boston, presented a paper estimating that if labor force participation had recovered from the recession at the same rate it usually does, between 1.6 million and 5.1 million additional Americans would have joined the ranks of the unemployed.[21] However, the paper was a preliminary look at the data, not the final statement on the issue.

The Bradbury paper has three principal shortcomings. First, it assumes that any worker who dropped out of the labor force could not find work if he or she looked for it. This is an obviously unrealistic assumption, but it serves as a useful starting point for analysis.

Second, the estimates of usual recovery rates are based on the recovery of LFP rates from recessions between 1960 and 1991. However, social changes during this period caused women to enter the workforce in record numbers. Chart 9 shows female LFP rates rising steadily over the past century. In the mid-1990s, the trend of a rising female presence in the workforce leveled off, and following the 2001 recession, female LFP rates did not rise as they had in the past.

However, this says nothing about the state of the economy, only that the social changes following the upheaval of the 1960s have largely worked themselves out in society. Bradbury recognized this in her paper, presenting estimates with "usual" recovery rates and those assuming no upward trend in female LFP. Removing the trend in female LFP rates cuts her estimates of slack in the labor force in half.[22]

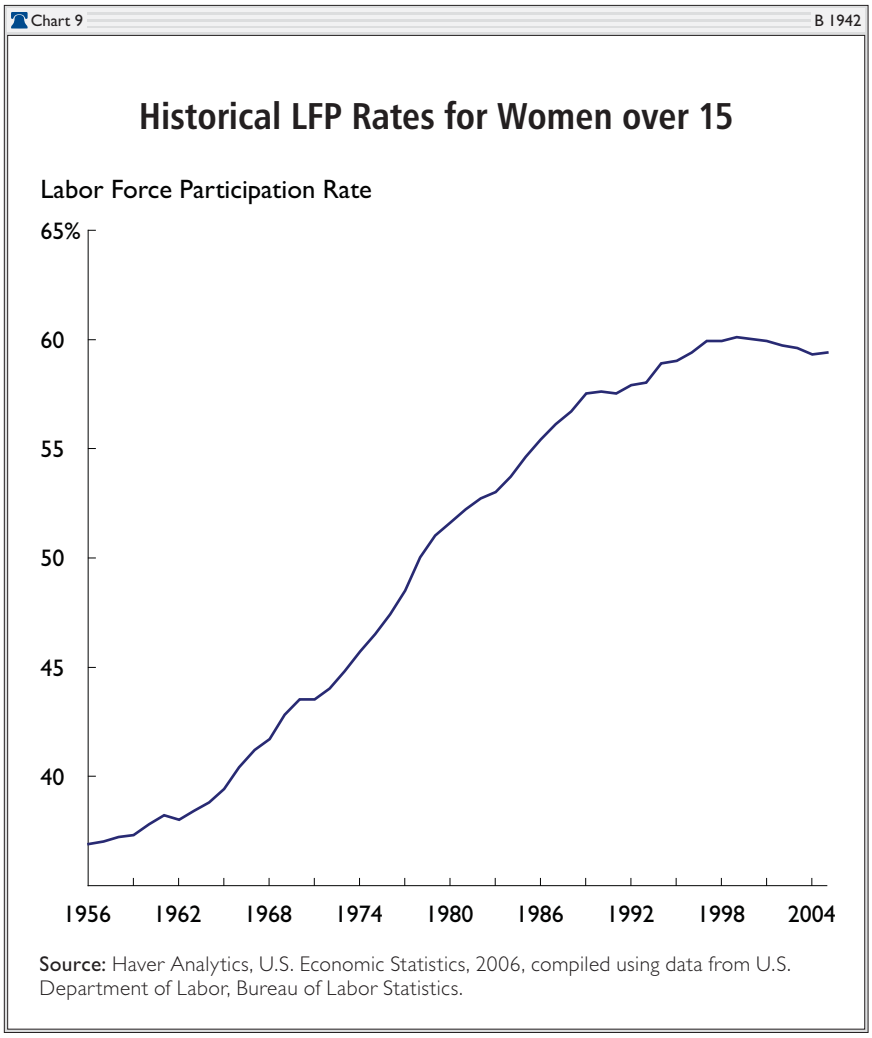
The third problem with using Bradbury's study to argue for weakness in the job market is that most of

21. See Bradbury, "Additional Slack in the Economy."

22. See *ibid.*, p. 21, Figure 5.

her estimates ignored the rise in LFP rates among Americans 55 years of age and older. This makes sense in some contexts because different factors affect the work choices of older and younger Americans. Thus, researchers may want to examine the age groups separately.

However, ignoring this age group does not make sense when trying to assess the overall strength of the job market. As Bradbury acknowledged, rising LFP rates led 3 million Americans over the age of 54 to stay in the job market.[23] This simply would not have been an option in a weak economy that was driving workers out of the labor force. Controlling for both the leveling off of female LFP rates and the increase in LFP among older Americans—something Bradbury did not do simultaneously—reveals that employment actually rose by 500,000 jobs over expectations after the 2001 recession.[24]



Federal Reserve Report

Bradbury's research attracted attention within the Federal Reserve, leading researchers at the Federal Reserve Board of Governors to examine in detail whether or not the declining LFP rates resulted from an underperforming economy. Using structural models of the economy, the Federal Reserve researchers concluded that:

> The low level of the participation rate is not artificially masking the extent of unemployment, so that the unemployment rate is providing a reasonably accurate picture of the state of the labor market.[25]

The most comprehensive examination to date shows that the decline in labor force participation rate did not result from an unusually weak job market and that the unemployment rate gives a good indication of the economy's strength.

Conclusion

The unemployment rate has fallen to dramati-

23. *Ibid.*

24. Author's analysis of data from *ibid.*, p. 20, Table 1.

25. Stephanie Aaronson, Bruce Fallick, Andrew Figura, Jonathan Pingle, and William Wascher, "The Recent Decline in Labor Force Participation and Its Implications for Potential Labor Supply," preliminary draft, Board of Governors of the Federal Reserve System, Division of Research and Statistics, March 2006, p. 58, at *www.brookings.edu/es/commentary/journals/bpea_macro/forum/200603bpea_aaronson.pdf* (May 3, 2006).

cally low levels. Some economists believe that low labor force participation levels make this a misleading indicator of the economy's health, but there is little evidence to suggest that LFP rates have fallen because of a weak economy.

The increase in the number of Americans not in the workforce matches the increase in Americans reporting that they do not want a job—an unusual state of affairs if poor job opportunities had driven them out. An aging population explains part of the aggregate decline in LFP, and decreased youth employment explains most of the rest, despite a booming job market in sectors of the economy that primarily hire younger workers. Similarly, greater numbers of older Americans are finding work with relative ease. Early estimates of the decline in LFP are useful as a starting point for analysis, but they are incomplete. The most recent and comprehensive research demonstrates that LFP has not declined due to the weakness of the economy.

In short, jobs are available for virtually every worker who wants them. Rather than wondering what has gone wrong, policymakers should look for ways to keep the economy strong and growing.

—James Sherk is a Policy Analyst in Macroeconomics in the Center for Data Analysis at The Heritage Foundation.

APPENDIX
DECOMPOSING AGGREGATE LFP SHIFTS

The labor force participation rate can be calculated as the sum of the labor force participation rate of each age group *i* in the population multiplied by each group's share of the population, as in Equation 1.

The Department of Labor provides data for the civilian noninstitutional population over the age of 16 and labor force participation rates of 16–19-year-olds, 20–24-year-olds, 25–34-year-olds, 35–44-year-olds, 45–54-year-olds, 55–64-year-olds, and those older than 65. Thus, we use those groupings as our age groups. The labor force participation rate for each group (LFP_i) comes from the Bureau of Labor Statistics, and we use the average values of age and labor force participation rates for each year. The population weight for each group is calculated by dividing the population of that age group by the total civilian noninstitutional population 16 years of age and older.

Equation 1

$$\textit{Total Labor Force Participation} = \sum_{i=1}^{N}\left(LFP_i\right)\left(\frac{Population_i}{Total\ Population}\right)$$

The difference in LFP rates between year *t* and year *s* is shown in Equation 2, the total LFP rate in the latter year minus the total LFP rate in the earlier year.

Equation 2

$$\textit{Difference in LFP} = \sum_{i=1}^{N}\left(LFP_{i,t}\right)\left(\frac{Population_{i,t}}{Total\ Population_t}\right) - \sum_{i=1}^{N}\left(LFP_{i,s}\right)\left(\frac{Population_{i,s}}{Total\ Population_s}\right)$$

This difference can be decomposed into the difference due to changes in the population weights of each subgroup of the population between years *t* and *s* and changes in the LFP rates of each subgroup during those years, as shown in Equation 3.

Equation 3

$$\begin{aligned}\textit{Difference in LFP} = &\sum_{i=1}^{N}\left(LFP_{i,t}\right)\left(\frac{Population_{i,t}}{Total\ Population_t}\right)\\ &-\sum_{i=1}^{N}\left(LFP_{i,s}\right)\left(\frac{Population_{i,t}}{Total\ Population_t}\right)\\ &+\sum_{i=1}^{N}\left(LFP_{i,s}\right)\left(\frac{Population_{i,t}}{Total\ Population_t}\right)\\ &-\sum_{i=1}^{N}\left(LFP_{i,s}\right)\left(\frac{Population_{i,s}}{Total\ Population_s}\right)\end{aligned}$$

The upper term shows the portion of the LFP change due to the changes in the labor force participation rates of each group between year *t* and *s*, with the population weights held constant at their value in year *t*. The lower term shows the change due to shifts in the demographics of the population, with LFP rates held constant at their level in year *s*.

We chose 2005 as year *t* and 2000 as year *s* and used Equation 3 to decompose the change in total LFP rates into the change due to demographic shifts and the change due to shifts in LFP rates among age groups. Of the 1.0 percentage point drop in aggregate labor force participation rates between these years, 0.7 percentage point came from changes in LFP rates of various age groups, and 0.3 percentage point came from changes in the demographic composition.

We can further decompose the aggregate change due to shifts in the LFP of separate age groups into the contribution to this shift made by each age group. We do this by calculating the second half of Equation 3, the expression for the total change in LFP due to within-group LFP shifts, separately for each age group. That is, we do not sum the calculations across the age groups, but take each group individually. The results of this decomposition are found in Chart 6.