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INSIDE THE VAULT | FALL 2005

<https://www.stlouisfed.org/publications/inside-the-vault/fall-2005/employment-growth-in-america-what-determines-good-jobs>

Employment Growth in America: What Determines Good Jobs?

Christopher H. Wheeler

Employment growth is one of the most fundamental aspects of a strong economy. Yet not all jobs are created equal. Some pay generously and offer desirable working conditions, while others do not. A study by Federal Reserve Bank of St. Louis economist Christopher H. Wheeler examined the growth of high-paying ("good") and low-paying ("bad") jobs across a sample of 206 metropolitan areas in the United States. This study suggests that the nature of jobs held by workers influences a variety of economic and social outcomes. Cities that experience rapid growth in high-wage employment also tend to see increasing incomes throughout the entire labor market, not just among those who happen to hold high-paying jobs. In addition, the growth of high-paying employment is associated with lower rates of crime, higher property values and rising educational levels.

Does Education Matter?

One of the fundamental sources of good job growth is an educated labor force. Within the past three decades, the demand for highly educated workers has grown dramatically in the United States. In 1980, the average proportion of workers across 200 industries with some education at the college level was 32 percent. By 2000, it had risen to 51 percent. In fact, no industry saw its proportion of college-educated workers decrease over this period.

At the same time, high-paying jobs also tend to have a particularly strong demand for college-educated workers. Among the top 25 percent of jobs in the sample, the average proportion of workers with a bachelor's degree rose from 18 percent in 1980 to 36 percent in 2000. There is also a strong positive association between an industry's average hourly rate of pay and the fraction of its workers with a bachelor's degree. More than 70 percent of workers in the top quartile of jobs had completed some post-secondary schooling in the year 2000, whereas fewer than 40 percent of workers in the bottom quartile of jobs had done so.

Why is the general level of education so important? Economies with high levels of educational attainment among the work force (or, more generally, population) experience a variety of benefits that economies populated by less-educated individuals do not. Not only is education associated with higher earnings for individuals, but as the general level of education within a city rises, the average labor earnings of all workers tend to rise. An additional benefit of a more-educated work force concerns the potential for future job growth. The level of education among a city's population is strongly associated with subsequent rates of growth among high-paying sectors. Thus, there is a "virtuous cycle" aspect to the growth of good jobs: Their presence helps to ensure that such jobs will continue to grow in the future. In addition, cities with large numbers of colleges and universities and employment that is accounted for by institutions of higher education tend to exhibit a significantly faster growth rate for good jobs. Therefore, cities with more-educated populations tend to see the ratio of good to bad jobs increase over time.

Where Are Good Jobs Created?

Beyond education and skill concerns, characteristics such as labor costs and unionization rates may influence the perceived profitability of a location and, therefore, the extent to which producers create jobs there. Where workers are willing to live and, thus, where employers are likely to set up production also depend on what amenities (e.g., entertainment, warm weather, schools) people desire in a location. The number of movie theaters and the average temperatures during January and July all affect employers' selection of their business locations. Not surprisingly, employment growth in the South and West of the United States has outpaced that of the Northeast and Midwest in recent decades.

Good jobs also tend to grow faster in metropolitan areas with younger populations. Part of the explanation for this probably relates to the fact that cities with young populations also tend to be more educated.

Furthermore, urban workers tend to be somewhat younger and more educated than their nonurban counterparts. In 2000, for example, 29.3 percent of urban workers between the ages of 18 and 65 held a bachelor's degree, and nearly 60 percent had some schooling at the college level. In rural areas, only 16.3 percent held a four-year college degree and only 45 percent had some post-secondary education. Moreover, 55 percent of urban workers were between 25 and 44 years of age - i.e., in the first half of their careers - whereas only 51 percent of rural workers were.

Conclusion

The benefits of job creation for both workers and their communities are enormous. Because those benefits tend to be even greater as the share of good jobs in total employment increases, identifying where and why good jobs grow is an important task.

Among the potential determinants considered, the most important seem to relate to the characteristics of the local labor force: age, education and work skills. Developing a young, skilled work force is probably the most fundamental step that a region can take in the promotion of good jobs.

Jobs in the U.S.: Average Hourly Pay and Total Employment

2000 Rank	Industry	Average Hourly Wage (\$)	Employment
1	Metal Mining	38.61	22,813
2	Security, Commodity Brokerage and Investment Companies	36.26	991,548
3	Business Management and Consulting Services	32.83	825,480
4	Railroads	29.73	291,944
5	Computer and Data Processing Services	29.70	1,385,009
192	Barber Shops	12.73	44,509
193	Retail Florists	12.57	152,538
194	Gasoline Service Stations	12.52	392,666
195	Eating and Drinking Places	12.06	5,151,237
196	Bowling Alleys, Billiard and Pool Parlors	12.02	49,759

Classroom Discussion

1. What evidence from the article do you find to support the claim that education affects employment and, in particular, that it affects whether jobs created are "good" or "bad"?
2. What are some ways in which an educated labor force benefits a community?
3. Based on the table, what would you project to be the educational level (i.e., high school diploma, some college, bachelor's degree or advanced degree) of those in the top five industries compared with employees in the bottom five industries?

This article was adapted from "Employment Growth in America" which was written by Christopher H. Wheeler and was published as a Federal Reserve Bank of St. Louis study in July 2005.



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Q & A

Why is Social Security described as a pay-as-you-go system?

Social Security taxes that are paid by current workers are used to fund payments to today's benefit recipients, rather than being invested in accounts or otherwise set aside to finance the retirement benefits of those currently paying taxes.

Do people work longer today, on average, than they did in previous decades?

No. In recent decades, people have been entering the labor force at a later age while retiring at an earlier age. Consequently, the proportion of life spent working has declined.

What is the dependency ratio, and why is it a problem for government pension programs?

The dependency ratio is the ratio of persons out of the labor force relative to the number of persons in the labor force. In the United States and most other high-income industrial societies, there is an increasing number of retired people (receiving government pension benefits) relative to working people (paying for those benefits). Trustees of the U.S. Social Security and Medicare trust funds project that, under current law, Social Security outlays will begin to exceed payroll tax revenue in 2018 and that the Social Security trust fund will be completely exhausted by 2042.

What can be done to address the Social Security shortfall?

Policymakers face difficult decisions because there are no popular solutions. A few ways to address this problem include decreasing benefits, raising the retirement age, raising taxes or some combination of these.

The content for Q & A was largely adapted from "The Real Population Problem: Too Few Working, Too Many Retired" which was written by William Poole and David C. Wheelock and appeared in the April 2005 issue of The Regional Economist, a St. Louis Fed publication. For the entire article, go to www.stlouisfed.org/legacy_assets/publications/re/2005/b/pages/population.cfm.



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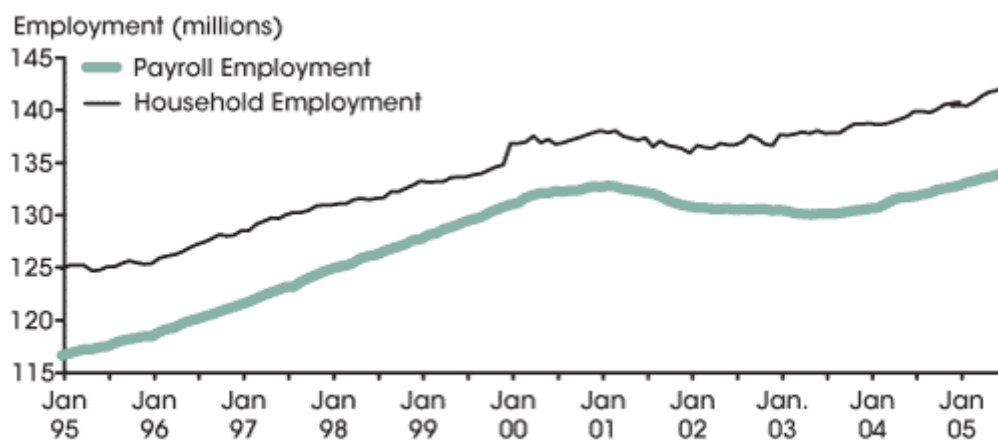
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Economic Snapshot

Third Quarter 2005

	Q4-04	Q1-05	Q2-05	Q3-05
Growth Rate-Real Gross Domestic Product	3.3%	3.8%	3.3%	3.8%
Inflation Rate-Consumer Price Index	3.6%	2.4%	4.2%	5.1%
Civilian Unemployment Rate	5.4%	5.3%	5.1%	5.0%



SOURCE: Bureau of Labor Statistics.

SOURCE: Data from September 2005 National Economic Trends.

What is the difference in the household and payroll employment numbers that are published monthly by the Bureau of Labor Statistics (BLS)?

The household employment is calculated from the Current Population Survey (CPS), which the U.S. Census Bureau conducts by collecting data from approximately 60,000 households. The payroll employment is calculated from the Current Employment Statistics (CES) Survey, in which the BLS and state employment security agencies collect data from approximately 400,000 business establishments each month.

Why is there a difference in the two numbers?

The BLS notes that part of the discrepancy might be due to factors that are hard to measure, such as the following:

- In estimating payroll employment, the BLS adjusts for new openings and closings of businesses, perhaps imperfectly.
- Workers who change jobs within the reference week will be counted twice in the CES survey, even though they hold no more than one job.

- Workers who are paid "off the books" show up in the household employment number but not in the payroll number.
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Lesson Plan

Employment Growth in America

Grade Level: 9-12 | PDF, 12 pgs.

Employment growth is one of the most fundamental aspects of a strong economy. Yet not all jobs are created equal. Some pay generously and offer desirable working conditions, while others do not. The study, "Employment Growth in America," by Christopher H. Wheeler, a St. Louis Fed economist, suggests that the nature of jobs held by workers influences economic and social outcomes. Cities that experience rapid growth in high-wage employment also tend to see increasing incomes throughout the entire labor market, not just among those who happen to hold high-paying jobs. In addition, the growth of high-paying employment is associated with lower rates of crime, higher property values and rising educational levels. This lesson shows that increasing human capital is important to the economy. From the *Inside the Vault* article, "Employment Growth in America: What Determines Good Jobs?"