

How Good is the Economy at Creating Good Jobs?

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Executive Summary

Between 1979 and 2004, real gross domestic product (GDP) per person in the United States increased about 60 percent. This report asks how well the U.S. economy has done translating this economic growth into good jobs.

The report defines a "good" job as one that offers decent pay (at least \$16 per hour or about \$32,000 per year), employer-paid health insurance, and a pension. In 2004 (the most recent year for which data are available), only 25.2 percent of American workers had a job that met all three criteria.

In both 1979 and 2004, about one-fourth of workers were in jobs that qualified as "good" by the definition used here. The basically unchanged good jobs rate across the two years suggests that the economy has failed to convert long-term economic growth into an expanding supply of good jobs.

After controlling for improvements between 1979 and 2004 in the "human capital" of the U.S. workforce —American workers today are, on average, older and much better educated than they were at the end of the 1970s—the economy now produces 25 to 30 percent fewer good jobs than it did 25 years ago.

In 2004, about one-fourth (26.6 percent) of Americans were in "bad" jobs, defined as a job that pays less than \$16, has no employer-provided health insurance, and no pension. This is close to the share of Americans in bad jobs in 1979 (27.9 percent).

If anything, the analysis presented here may paint an overly optimistic picture of the current economy's capacity to generate high-quality employment. The data used here for health insurance and pensions do not allow us to control for declines in the quality of many employer-provided health-insurance plans (most importantly the rise in the employee share of the cost of such plans) or for declines in the quality of pension plans (especially the shift from defined-benefit to defined-contribution plans).

Introduction

The U.S. economy is much richer today than it was at the end of the 1970s. On a per person basis, inflation-adjusted national income grew from about \$24,000 in 1979 to about \$38,500 in 2004. As a result, on average, Americans are 60 percent richer today than they were at the end of the 1970s. The main question examined in this report is how well the U.S. economy has done in converting this economic bonanza into good jobs.

The short answer is "not very well." If we define a "good" job as one that pays at least \$16 dollars per hour, offers health insurance that is at least partly paid by the employer, and provides a pension plan, then the share of U.S. workers in good jobs hardly changed between 1979 (24.6 percent) and 2004 (25.2 percent), despite the 60 percent increase in income per person over the same period. More importantly, if we control for significant improvements in the human capital of the U.S. workforce —today's workforce is, on average, significantly older and much better-educated than the country's workforce at the end of the 1970s—the economy's ability to generate good jobs has actually fallen by about 25 to 30 percent.

¹ According to the BLS (2005a), Table 1, GDP per capita (in constant 2002 dollars) in 1979 was \$23,922; in 2004, it was \$38,392.

² Without information about how the distribution of income has changed over the period, of course, what has happened to the "average" American doesn't necessarily tell us anything about what has happened to "typical" Americans. The U.S. economy became markedly more unequal over the period analyzed here. See, for example, Mishel, Bernstein, and Allegretto (2005).

The Data and the Definition of a Good Job

Defining a good job is not an easy task. Any definition must appear reasonable to a diverse group of observers including economic policymakers, employers, and employees themselves. In addition, if we want to trace the development of good jobs over time, the definition must build on the specific labormarket information that is available in large, nationally representative data sets such as the Current Population Survey (the source of official monthly data on the national unemployment rate, as well as many other indicators of the state of the labor market).

This report uses a simple definition of a good job, based on three job characteristics: pay, health insurance, and pension benefits. Of course, these are not the only factors that would enter into a complete determination of whether a particular job is good. Other important job features would include the schedule, the amount of paid vacation and sick leave, the degree of job security, the level of on-the-job health and safety protections, the availability of family-friendly policies, and many others. Unfortunately, available labormarket data do not allow a consistent analysis of any of these important aspects of job quality over time.

Even if we limit the analysis to pay, health insurance, and pension benefits, reasonable people could differ about the particular level of pay or benefits that reaches the threshold of a good job. The rest of this section lays out the specifics of the working definition of a good job used here, and discusses some of the practical issues involved in using the March Current Population Survey (CPS) data to measure job quality. The March CPS, which is the main national source of family income, poverty, and health-insurance coverage data, is uniquely suited to measuring job quality over

time since the survey includes data on individuals' earnings from work, employer-provided health-insurance coverage, and participation in employer-operated pension plans.

Hourly Earnings

To qualify as a "good" job in this analysis, a job must pay at least \$16 per hour, or about \$32,000 on an annual basis. That pay rate —which is set in inflation-adjusted 2004 dollars—corresponds to the median hourly pay for men in 1979. In practice, then, a good job must pay, in inflation-adjusted terms, at least as much as the typical male earned at the end of the 1970s.³

Workers' hourly earnings in the calendar year before the March CPS are calculated from the CPS data by dividing individuals' reported annual earnings from work by their estimated annual hours at work. Annual hours at work are estimated by multiplying the total number of weeks worked during the year by the usual number of hours worked per week. If the resulting estimated hourly wage is \$16 per hour or higher, then the worker's job meets the pay cutoff for a good job.

Health Insurance

A "good" job must also offer employer- (or union-) provided health insurance, paid at least in part by the employer. While the March CPS asks an extensive set of questions about individuals' health-insurance coverage through both private and public sources, the available information on private coverage falls short of the ideal for both conceptual and practical reasons. For 1979 through 2004, on a consistent basis, the March CPS asked whether an individual was covered by an employer-(or union-) provided health-insurance plan and, if

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³ The exact hourly pay rate used is \$15.97 per hour, from Mishel, Bernstein, and Allegretto (2005), Table 2.7, adjusted for inflation.

so, whether the employer pays all, part, or none of the premiums for that plan.

The most important limitation of the survey for the present analysis is the lack of detailed information on the "quality" of the employer (or union's) health-insurance plan.4 The March CPS does not report the exact share of the costs of the health-insurance plan that is paid by employers. Instead, the CPS indicates whether the employer paid "all," "part," or "none" of the premium; and the CPS provides no consistent information on other important aspects of health-insurance plans including deductible payments, co-payments, choice of doctors, ease of referrals, or the extent of coverage. The data that are available in the March CPS raise some concerns that the "quality" of health-insurance plans may have deteriorated in recent years. In particular, the share of employees whose employer pays the full cost of health-insurance premiums fell substantially over the 1979-2004 period. As late as 1983, about 28 percent of workers were enrolled in employer- (or union-) sponsored health-insurance plans where the employer paid all of the associated premiums. By 2004, the share in fully-paid plans had dropped to 12 percent. Over the same period, the share of workers in plans where the employer paid only part of the premiums rose from 33 percent to 43 percent. In recent years, costcutting has also led many employers to shift from plans with freedom of choice with respect to doctors and specialists, as well as low (even no) deductibles and co-payments, to healthmaintenance-organization style plans that restrict patients' freedom to choose doctors and specialists and generally include higher deductibles and co-payments. The "good jobs"

4 Measuring quality is particularly tricky in this context. The main interest here is in the quality of the *health-insurance plan*, not in the underlying *medical attention* paid for by the plan. Given advancements in medical technology, drugs, and medical practices, the quality of medical attention offered by any given plan would undoubtedly be significantly higher in 2004 than was the case in 1979.

indicator used here does not capture any of these likely deteriorations in the quality of health-insurance over time. As a result, the indicator likely overstates the quality of jobs in later years, thereby overstating the progress the economy has made in improving job quality.

Over the period analyzed here, the health-insurance related questions in the March CPS underwent several changes. At least two of these changes could affect the consistency of measures of health-insurance coverage. Beginning in March 1995 (covering data for calendar year 1994) the use of computer-assisted interviewing techniques allowed interviewers to probe respondents' answers to questions about private-health-insurance coverage. The new technique resulted in a significant increase in private-coverage rates. The data used here for 1994 through 2003, which are taken from the Unicon extract of the March CPS data, "were recoded to their equivalent [pre-March-1995] fields based on the set of questions that had previously been used." Beginning in March 2000 (covering data for calendar year 1999), the CPS introduced an additional series of "verification" questions asked of respondents who reported no coverage throughout the year after the standard set of CPS questions. The new verification questions increased overall health-insurance coverage rates substantially relative to the earlier standard.⁶ The upward shift in private-coverage rates in 1999, however, is likely to be small since the methodological change had its biggest impact on publicly provided health insurance, particularly coverage for children.

While the March CPS health-insurance measure is not perfect, it provides a basically consistent measure of employer-paid health-insurance coverage from 1979 through 2004. Several recent

American workers today are, on average, older and much better educated than they were at the end of the 1970s.

⁵ Unicon (2005), Appendix T. The data used for 2004 in this analysis come directly from the 2005 March CPS, coded to match the Unicon procedure.

⁶ According to the Kaiser Commission on Medicaid and the Uninsured (2004), the verification questions raised the overall health-insurance coverage count by 3.5 million people (pp. 52-53).

improvements to the CPS may increase the share of workers with employer-paid coverage in recent years relative to what those shares would have been in earlier years, but the size of the effect is likely to be small. To the extent that any significant bias remains, it would tend to increase the share of workers in "good" jobs in more recent years.⁷

Pension

In addition to paying at least \$16 per hour and offering employer-paid health insurance, a good job must also provide a pension plan. An ideal measure of pensions would take into account the vesting period, the expected level of retirement income, the amount of risk borne by the individual worker, and other factors. Unfortunately, the March CPS data do not track any of these characteristics over time. Instead, the analysis here counts a worker as having a pension if the employee reports participating in an employer-sponsored pension plan, regardless of the characteristics of the plan.

In the current context, the biggest drawback to the March CPS pension variable is its failure to capture the substantial transformation in the nature of private pensions in recent years. The entire period 1979-2004 has seen a steady decline in the share of workers in defined-benefit pension plans, where employers guarantee a specified level of income upon retirement, and an equivalent rise in the share of workers in defined-contribution plans, where employers pay a specified amount of money into a worker's personal retirement account. Among private-sector workers, for example, in 1979, about 38 percent of workers were in definedbenefit plans⁸; by 2005, the share had fallen to 21 percent. Over the same period, the portion of private-sector workers in defined-contribution plans rose from about 7 percent to 42 percent.9

The shift from defined-benefit to defined-contribution plans represents a substantial shift in risk from employers to employees, but is not reflected in the "good" jobs indicator. As a result, the "good" jobs indicator analyzed here probably overstates the quality of jobs in recent years, relative to earlier periods.

A Bad Job

This report also briefly analyzes trends in "bad" jobs, defined here as a job that pays less than the \$16 per hour cutoff for a good job, *and* has no paid, employer-provided health insurance, *and* has no employer-sponsored pension plan.

The U.S. economy is much richer today than it was at the end of the 1970s.

⁷ Another limitation of the CPS data, which is more important in other contexts, is the somewhat ambiguous time frame for employer-provided coverage. In principle, the CPS asks individuals whether they had continuous coverage through the calendar year preceding their March interview. Research, however, suggests that respondents may treat the question, instead, as referring either to most of the preceding calendar year or to a particular point-in-time (especially, the job they hold at the time of the March interview). To the extent that this interpretation of the coverage questions has been relatively constant over the period 1979-2004, any resulting bias would be relatively constant over time, leaving estimates of changes in coverage unbiased. In any event, we are interested in whether the workers' job had employer-paid health insurance, and only secondarily in whether this coverage was continuous throughout the year. As a result, this flaw in the March CPS survey is less of a concern here than it might be in other contexts.

⁸ Especially in recent years, a significant portion of the plans categorized by the Bureau of Labor Statistics as defined-benefit plans are "cash balance" plans, which guarantee workers a rate of return for their retirement savings, but not a specific income level in retirement.

⁹ For the 1979 figure, see Mishel, Bernstein, and Allegretto (2005), Figure 2G; for 2005, see Bureau of Labor Statistics (2005b), p. 1. In both cases, the underlying data include workers that have both defined-benefit and defined-contribution plans.

Good Job Trends

Table 1 reports trends in "good" and "bad" jobs from 1979 through 2004, the most recent year available. In order to control for the effects of the business cycle on comparisons over time, the table reports data for the three business cycle peaks —1979, 1989, and 2000— as well as the fourth year after each of the peaks —1983, 1993, and 2004. In 2004, 25.2 percent of the workforce were in a "good" job, just above the 24.6 percent share that were in good jobs in 1979. The good jobs share in 2004 was higher than it had been at comparable points in earlier business cycles: 22.9 percent in 1983 and 21.7 percent in 1993. At first glance, the small increase (0.6 percentage points) over the entire 1979 to

2004 period, and the slightly better improvements across comparable points in the last two business cycles (2.3 to 3.5 percentage points), suggest that the economy has improved its capacity to generate good jobs. These modest gains, however, should be set against the 60 percent increase in national income per capita over the period. Moreover, these "raw" numbers do not control for the substantial improvements in technology, increases in the size of the capital stock, or the age and educational attainment of the workforce. As we will see below, controlling for increases in the age and education of the workforce paints a substantially different picture.

In particular, the share of employees whose employer pays the full cost of healthinsurance premiums fell substantially over the 1979-2004 period.

TABLE 1
Share of good jobs and bad jobs, 1979-2004
(percent)

	Good jobs	Bad jobs
1979	24.6	27.9
1983	22.9	29.7
1989	22.9	30.6
1993	21.7	31.3
2000	25.1	26.7
2004	25.2	26.6
Change (percentage-po	oint)	
1983-2004	2.3	-3.1
1993-2004	3.5	-4.7
1979-2004	0.6	-1.3

Notes: Analysis of March Current Population Survey, 1980-2005. Years 1979, 1989, and 2000 are labor-market peaks; 1983, 1993, and 2004 are four years peaks. "Good" jobs pay at least \$16 per hour (in constant \$2004); have health insurance that is fully or partially paid by the employer; and a pension plan in which the employee participates. "Bad" jobs pay less than \$16 per hour (in constant \$2004); offer no paid health insurance; and do not have a pension plan in which the employee participates. The sample is all 18-to-64 year old employees, including the incorporated self-employed.

Age

Table 2 shows the trend in good jobs for three separate age groups: 18-to-34 year olds, 35-to-54 year olds, and 55-to-64 year olds. The most remarkable feature of the table is that, between 1979 and 2004, the share of good jobs declines for all three age groups: from 16.2 percent to 14.1 percent for 18-to-34 year olds; from 34.1 percent to 31.3 percent for 35-to-54 year olds; and (just barely) from 33.1 percent to 33.0 percent for 55-to-64 year olds. As we saw above, the overall share of good jobs rose slightly over the same period. The only way for the good jobs share to rise for the population as a whole at the same time that the

good jobs share is falling for all three subgroups, is if the composition of the population is shifting over time toward subgroups that have a higher share of good jobs. In fact, between 1979 and 2004, the median age of the 18-to-64 year-old workforce rose 7 years (from 33 to 40), pushing a significant portion of the population out of the 18-to-34 age group, which has the lowest share of good jobs, into the 35-to-54 year group, which has the highest share of good jobs.

Even Table 2's simple effort to control for the aging of the population substantially alters our perception of the economy's capacity to generate good jobs. Over the full 1979-2004 pe-

TABLE 2
Share of good jobs and bad jobs, by age, 1979-2004
(percent)

	18-34	35-54	55-64	
(a) Good jobs				
1979	16.2	34.1	33.1	
1983	13.6	32.6	32.9	
1989	13.0	32.5	30.7	
1993	11.5	30.5	27.9	
2000	14.4	32.2	31.8	
2004	14.1	31.3	33.0	
Change (percentage-point)				
1983-2004	0.5	-1.3	0.1	
1993-2004	2.6	0.8	5.1	
1979-2004	-2.1	-2.8	-0.1	
(b) Bad jobs				
1979	34.7	20.3	20.9	
1983	38.5	20.4	20.5	
1989	40.8	20.9	21.8	
1993	43.8	21.1	21.1	
2000	40.2	18.0	17.2	
2004	40.8	19.0	15.8	
Change (percentage-point)				
1983-2004	2.3	-1.4	-4.7	
1993-2004	-3.0	-2.1	-5.3	
1979-2004	6.1	-1.3	-5.1	

Notes: See notes to Table 1.

The entire period 1979-2004 has seen a steady decline in the share of workers in defined-benefit pension plans and an equivalent rise in the share of workers in definedcontribution plans... The shift from defined-benefit to defined-contribution plans represents a substantial shift in risk from employers to employees.

Between 1979 and 2004, job quality deteriorated sharply for less-educated workers and increased only marginally for bettereducated workers. riod, the economy's ability to create good jobs for younger and middle-aged workers fell substantially, by 2.1 percentage points for 18-to-34 year olds and 2.8 percentage points for 35to-54 year olds. At comparable points in the business cycle, the 2004 performance was somewhat better, but still worse than suggested by the overall numbers without any controls in Table 1. Between 1993 and 2004, for example, the share of workers in good jobs rose 2.6 percentage points for younger workers, 0.8 percentage points for middle-aged workers, and 5.1 percentage points for older workers, compared to a 3.5 percentage-point increase overall. Between 1983 and 2004, the share of good jobs rose 0.5 percentage points for younger workers, fell 1.3 percentage points for middleaged workers, and rose 0.1 percentage points for older workers, compared to a 2.3 percentage-point increase for the workforce as a whole.

The results in Table 2 suggest that even if the underlying economy in 2004 had been identical to how it was in 1979, the aging of the workforce would have increased the share of good jobs overall, simply because, on average, the older workforce in 2004 would have been more likely to be in a good job than the younger workforce was back in 1979. We will see below that controlling more formally for the effects of age (and education) reverse all of the economy's apparent gains in job quality.

Education

Table 3 presents trends in good jobs for workers with four different levels of formal education: less than a high school degree, a high school degree, some college (but not a four-year degree), and a four-year-college degree or more. The likelihood of being in a good job depends heavily on a worker's level of education. In 2004, for example, the share of workers in a good job varied from fewer than one in 20 workers (4.4 percent) with less than a high school degree, to about one in six (15.8 percent) high-

school graduates, to about one in four (23.4 percent) with some college, to almost half (43.5 percent) of workers with a four-year-college degree or more.

Over the full 1979-to-2004 period, the change in the good-jobs share also depended heavily on education level. Good jobs fell dramatically for workers with lower levels of education, and improved slightly for workers with higher levels of education. For those with less than a high-school degree, for example, the good-jobs share declined 11.6 percentage points; for those with a high-school degree, but no further education, the good-jobs share fell 6.7 percentage points. Meanwhile, good jobs increased 1.1 percentage points for workers with some college education and 1.8 percentage points for workers with a four-year college degree or more.

The change in good jobs is more positive across comparable points in the business cycle. Between 1983 (four years after the 1979 peak) and 2004 (four years after the 2000 peak), the decline in good jobs was smaller or the improvement was larger for all four education groups than was the case for the full 1979-2004 period. The data also show a modest improvement between 1993 (four years after the 1989 peak) and 2004 for all but the bottom education category.

Between 1979 and 2004, job quality deteriorated sharply for less-educated workers and increased only marginally for better-educated workers. As we saw above with the trends in good jobs by age, an important part of the slight overall improvement in the good-jobs share stemmed from a decline in the portion of workers with lower levels of education —and thus lower shares of good jobs— and a corresponding rise in the portion of workers with higher levels of education —and thus higher shares of good jobs.

Bad Jobs

Tables 1, 2, and 3 also report the share of workers in "bad" jobs (ones that pay less than \$16 per hour, don't offer health insurance, and don't offer a pension). In 2004, slightly more U.S. workers were in bad jobs (26.6 percent) than were in good jobs (25.2 percent). In the same year, the share of workers in bad jobs declined with both age and education. About 41 percent of younger workers were in bad jobs, compared to about 19 percent of middle-aged and about 16 percent of older workers. Meanwhile, almost 60 percent of workers with less than a high-school degree were in a bad job, compared to about one-third of high school graduates, and about 10 percent of workers with a college degree or more. Even among workers with some college education, more workers were likely to be in a bad job (27.4 percent) than in a good job (23.4 percent).

Between 1979 and 2004, the overall share of workers in bad jobs declined slightly (1.3 percentage points). The change in the bad-jobs share over the period varied greatly by age and education level. The share of workers in bad jobs increased for younger workers (up 6.1 percentage points), workers with less than a high-school degree (up 20.2 percentage points), and the high-school educated (up 5.6 percentage points). Over the same period, the bad-jobs share fell for middle-aged workers (down 1.3 percentage points), older workers (down 5.1 percentage points), workers with some college education (down 4.8 percentage points), and a four-year-college degree or more (down 3.2 percentage points).

TABLE 3
Share of good jobs and bad jobs, by education, 1979-2004
(percent)

	Less than HS	High School	Some college	College+
(a) Good jobs				
1979	16.0	22.5	22.3	41.7
1983	12.3	19.5	20.0	40.8
1989	8.5	18.3	20.8	41.1
1993	5.4	15.5	19.4	40.8
2000	5.0	16.8	22.6	45.2
2004	4.4	15.8	23.4	43.5
Change (percentage-point)			
1983-2004	-7.9	-3.7	3.4	2.7
1993-2004	-1.0	0.3	4.0	2.7
1979-2004	-11.6	-6.7	1.1	1.8
(b) Bad jobs				
1979	38.4	26.7	32.2	13.1
1983	43.6	29.4	34.7	13.1
1989	51.7	31.5	34.2	12.2
1993	56.8	35.0	33.0	12.2
2000	56.5	31.1	28.0	9.3
2004	58.6	32.3	27.4	9.9
Change (percentage-point)			
1983-2004	15.0	2.9	-7.3	-3.2
1993-2004	1.8	-2.7	-5.6	-2.3
1979-2004	20.2	5.6	-4.8	-3.2

Notes: See notes to Table 1. Education categories follow recommendations by Jaeger (1997) across coding change between 1991 and 1992.

Controlling for Improvements in the Labor Force

The main question examined in this report is how well the U.S. economy has done in converting economic growth into good jobs. Given that capita income has increased more than 60 percent in real terms since the end of the 1970s, we would expect that the economy would be able to generate many more good jobs now than it did then. 10 National income is up for at least three reasons. First, the capital stock is much larger today than it was 25 years ago. When workers work with more capital they are generally more productive. Other things equal, a trucker driving an 18-wheeler will deliver more goods than one driving a pickup. Second, on average, technological advances have raised the productivity of the capital stock, independent of any increase in the size of the capital stock. Workers using electronic spreadsheets on personal computers, for example, are much more productive than workers using paper spreadsheets and handheld calculators.

Third, on average, workers' "human capital" —their broadly measured skills— is today much higher than it was in 1979. Today's workforce is older —and therefore more experienced— and much better educated than was the case 25 years ago. The magnitude of the improvements is large, and has likely had a large impact on average productivity. As mentioned above, in the March CPS data for the 18-to-64 year-old workforce analyzed

10 By historical standards, the last quarter century has not seen particularly impressive increases in national growth. In fact, economic growth was much stronger in the period from the end of World War II through the end of the 1970s. The focus of this paper is on the last 25 years because they are a period marked by moderate economic growth and sharply rising economic inequality.

here, in 1979, the median age was only 33; by 2004, the median age had risen 7 full years to 40. Over the same period, the portion of U.S. workforce with a four-year-college degree or more grew from 18 percent to 29 percent, with comparable declines in workers with less than a high-school degree. All else constant, a more experienced and better-educated workforce will be more productive than one that is less-experienced and less-educated.

In assessing changes in the underlying capacity of the economy to generate good jobs, ideally, we would like to control for the increase in the capital stock, improvements in technology, and the sharp rise in human capital. Unfortunately, conceptual and data limitations make it difficult to control for growth in the capital stock and technological advances in the present analysis. We can, however, take some steps to control for the greater experience and higher levels of educational attainment in the workforce over time. Given that we are ignoring two of the most important causes of productivity growth —a greater capital stock and technological progress—the procedure used below will only control for part of the increase we would have expected to see based on higher productivity.

Table 4 presents the results of a simple exercise to control for the improvements in the experience and education levels of the workforce between 1979 and 2004. The analysis involves dividing the entire workforce into 12 education-and-age groups, based on the four education categories (less than high school, high school, some college, and college or more) and three age ranges (18 to 34, 35 to 54, and 55 to 64) in Tables 2 and 3.

On average, workers' "human capital" — their broadly measured skills— is today much higher than it was in 1979.

The first column shows the share of the workforce in each of the 12 categories in 1979; the third column shows the share in each of the categories in 2004. A comparison of these two columns illustrates the scale of the "skills upgrading" that took place between the two periods. In general, the share of the less-educated and younger groups fell substantially. Younger (18 to 34) workers with less than a high-school degree, for example, fell from 8.4 percent of all workers in 1979 to 4.2 percent of workers in 2004. The share of less-than-high-school-educated workers fell for all ages (from 8.4 percent to 4.0 percent for 35-to-54 year olds, and from 3.9 percent to 1.1 percent for 55-to-64 year

olds). The share of younger workers also fell for all education levels (from 19.1 percent to 11.5 percent for younger high-school graduates, from 15.8 percent to 12.2 percent for younger workers with some college, and from 9.3 percent to 9.0 percent of younger workers with a college degree or more).

The second column gives the share of each education-and-age group that had a good job in 1979; the fourth column gives the share that had a good job in 2004. A comparison of these two columns shows how the economy's capacity to provide these different types of workers with a good job changed over time. *In 11 of the 12 education*-

TABLE 4 Effects of aging population and educational upgrading on share of good jobs, 1979-2004 (percent)

Education, age	1979 Share of total workforce	1979 Share with good job	2004 Share of total workforce	2004 Share with good job
Less than High school, 18-34	8.2	6.5	4.2	1.8
Less than High school, 35-54	8.4	22.0	4.0	6.1
Less than High school, 55-64	3.9	22.9	1.1	8.6
High school, 18-34	19.1	14.9	11.5	6.8
High school, 35-54	13.7	30.2	16.0	20.5
High school, 55-64	4.4	31.3	4.0	22.9
Some college, 18-34	15.8	14.6	12.2	11.0
Some college, 35-54	6.3	37.1	14.0	32.0
Some college, 55-64	1.8	38.6	3.5	32.0
College or more, 18-34	9.3	30.4	9.0	33.3
College or more, 35-54	7.3	52.9	16.2	47.8
College or more, 55-64	1.7	56.0	4.4	48.8
Total (actual)	100.0	24.6	100.0	25.2
Counterfactuals				
1979 pop.; 2004 rates				17.9
2004 pop.; 1979 rates		31.3		
Difference		6.1		-7.3

Notes: See notes to Table 1. Education categories follow recommendations by Jaeger (1997) across coding change between 1991 and 1992.

In 11 of the 12 education-andage categories, the shares of workers with a good job fell between 1979 and 2004. and-age categories, the shares of workers with a good job fell between 1979 and 2004. The only exception was an increase in the share of young workers with a college degree or more, who saw an increase from 30.4 percent in 1979 to 33.3 percent in 2004. In most of the other cases, the declines within education-and-age categories in the share of workers in good jobs were large: from 22. 0 percent of middle-aged workers with less than a high-school degree in 1979 to 6.1 percent in 2004; from 30.2 percent to 20.5 percent of middle-aged high-school graduates; and from 52.9 percent to 47.8 percent of middle-aged college graduates, for example.

In the second and fourth columns of Table 4, the row marked "Total (actual)" shows the average share of good jobs across all education-and-age categories. As in Table 1, the average for the overall population was 24.6 percent in 1979 and 25.2 percent in 2004. The layout of Table 4, however, makes clear that the overall average is just the weighted-average of the good-jobs shares for each of the 12 education-and-age groups.

This property of the overall average —that it is the weighted sum of the group averages—effectively allows us to control for the change in the education-and-age mix across the two years. For example, if we apply the education-and-age weights from 1979 to the 2004 data on the share of good jobs within each category, we can estimate what the overall average share of good jobs would have been in 2004 if the economy had not experienced any "skills upgrading" after 1979. The result of this calculation appears in the last column of the table in the row labeled "Counterfactuals / 1979 population; 2004 rates." Under these

assumptions, if the workforce in 2004 had not been any older or any better educated than it was in 1979, then only 17.9 percent of workers—not 25.2 percent of workers would have been in good jobs in 2004. In other words, all of the actual 0.6 percentagepoint increase in the good jobs share between 1979 and 2004 (from 24.6 percent to 25.2 percent) stemmed from improvements in workers' human capital; none of small progress reflected an improvement in the economy's underlying ability to generate good jobs. In fact, the large-scale upgrading of human capital masked a substantial decline —on the order of about 30 percent¹¹—in the underlying capacity of the economy to generate good jobs.

The data in Table 4 can provide a second estimate of the change in the economy's underlying ability to create good jobs. We could, instead, calculate the overall average good-jobs share that would have resulted from using the 1979 good-jobs shares by education-and-age groups with the older and better-educated 2004 workforce. This calculation involves applying the workforce composition for 2004 (in column three) to the good-jobs shares for 1979 (in column two). The row marked "Counterfactuals / 2004 population; 1979 rates" gives the results of this calculation: 31.3 percent. If the economy, with its actual 2004 workforce, had only been able to maintain the same ability to create good jobs as it had in 1979, then the share of good jobs in 2004 would have been 31.3 percent, or 6.1 percentage points higher than it actually was in 2004. By this estimate, between 1979 and 2004, the economy's

¹¹ Calculated as a 7.2 percent difference over a base of 25.2 percent.

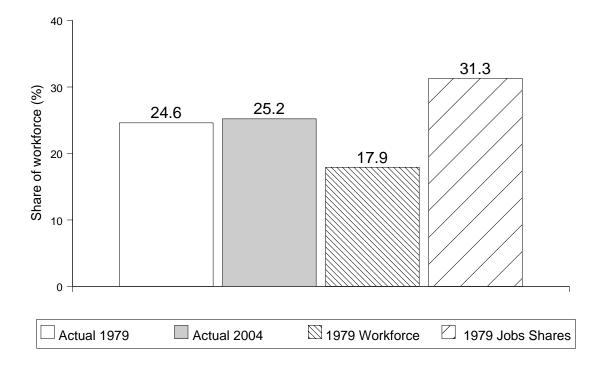
underlying capacity to generate good jobs fell about 25 percent. (See **Figure 1** for a summary of the two counterfactual exercises.)

Both versions of this simple approach lead to the same conclusion. The underlying capacity of the economy to generate good jobs has declined 25-30 percent over the last 25 years. The only reason that the good jobs share has managed to hold its own between 1979 and 2004 is because the economy is working with a much better labor force than it did at the end of the 1970s. If the workforce had not experienced these dramatic improvements, the share of good jobs would have fallen 25-30 percent, despite large increases in the capital stock per worker and significant technological progress over the period.

Moreover, the 25-30 percent decline in the underlying ability of the economy to create good jobs is almost certainly an underestimate since this calculation does not control for the larger capital stock or technological advances, both of which should have made it much easier for the economy to produce "good jobs."

The underlying capacity of the economy to generate good jobs has declined 25-30 percent over the last 25 years.

Figure 1: Share of good jobs (%), 2004



Conclusion

The United States is a much richer country today than it was a quarter of a century ago, but the economy produces almost an identical supply of good jobs then as now. Only about one-fourth (25.2 percent) of the workforce has a job that pays a decent wage and offers both a health-insurance and a pension plan. A slightly higher portion of the workforce (26.6 percent) is in a job that pays poorly and offers neither health insurance nor a pension.

A simple exercise to control for improvements in the human capital of the workforce suggests that, over the last 25 years, the economy has lost 25 to 30 percent of its capacity to generate good jobs. This is a conservative estimate, since it does not factor in declines in the quality of many employer-provided health-insurance plans (most importantly the rise in the employee share of the cost of such plans) or declines in the quality of pension plans (especially the shift from defined-benefit to defined-contribution plans).

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