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Did the Clinton Rising Tide Raise All Boats?

Job Opportunity for the Less Skilled

Marc-André Pigeon and L. Randall Wray

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Preface

The remarkable decline in the official unemployment rate over the past few years has not contributed to a sustained increase in the living standards of many U.S. workers. In late September the Census Bureau reported that the number of Americans living in poverty in 1997 was 35.6 million (a figure unchanged from 1996) and that real median household income has only recently returned to its 1989 level of $37,005. That so many Americans face such poor or mediocre economic circumstances following the longest uninterrupted economic expansion of the postwar period is unconscionable, and serious inquiry into why the fruits of growth are so unevenly distributed is required. The need for analysis and corrective action becomes even more urgent in the face of the real possibility of an oncoming recession, a situation that would quickly wipe out whatever gains workers at the bottom of the income distribution have achieved.

One explanation offered for such small or nonexistent gains is that many of the jobs that have been generated do not pay well. In this Public Policy Brief, Research Assistant Marc-André Pigeon and Senior Scholar L. Randall Wray explain that although low-wage jobs have played a role in dampening income growth at the bottom of the wage scale, other factors may be more important. The authors make a forceful argument that the fall in the unemployment rate masks the real problem: Less-educated Americans are being excluded from the labor force.

The argument developed by Pigeon and Wray is based on an analysis of population and employment data for people aged 25 and older from 1992 to the first half of 1998. During this period the population grew by 11.4 million and employment rose by 11.6 million, while unemployment

fell by 2.7 million and the number of individuals out of the labor force increased by 2.5 million. These aggregate figures are consistent with the picture of a tight labor market. However, once the data are disaggregated by level of education (generally considered a proxy for skill levels), a strikingly different picture emerges. The authors estimate that of the 11.6 million new jobs created, only about 700,000 (a meager 6 percent) were awarded to workers who have no college education, even though about 50 percent of the U.S. population fall into this group. Most startling, however, is the authors' estimate of 26 million potentially employable Americans, which they define as people who are officially unemployed plus those who are currently out of the labor force but might reenter under certain conditions. This figure, which is over six times the current number of officially unemployed, represents a huge waste of human potential, especially in the face of such a vital economy.

In response to these problems, the authors advocate a job opportunity program similar in spirit to a proposal made several years ago by Hyman P. Minsky. Pigeon and Wray argue that the federal government can and must ensure a job for every individual who demonstrates that he or she is ready, willing and able to work. The workers in such a program would provide a buffer pool of labor from which business could draw during upturns instead of bidding up wages of college-educated workers. Price stability and full employment could thus exist as complements.

While the advantages and disadvantages of such a problem are open to discussion, I believe that Pigeon and Wray's analysis points to important issues often neglected in discussions of the labor market. I hope you find it informative and welcome your comments.

Dimitri B. Papadimitriou
Executive Director
October 1998

Did the Clinton Rising Tide Raise All Boats?

As the long, relatively robust Clinton-era expansion comes to its apparent end, it is time to take stock of the impact it has had on labor market opportunities. The official unemployment rate has fallen to 4.5 percent, the lowest level in three decades. President Clinton is rightly proud of the number of jobs created during this expansion. The long-term downward trend of real wages that began in the early 1970s was stopped. Real wages have increased 4.2 percent since 1994, the longest period of sustained increases since the late 1960s and early 1970s. From June 1997 to June 1998, average nominal hourly earnings rose by 4.1 percent, or by 2.4 percentage points more than the rate of increase of the consumer price index (up only 1.7 percent over the same period). Further, demand for experienced and skilled workers has been so high that average weekly hours worked has climbed dramatically. Many commentators have remarked on the tightness of the labor market. Employers from various regions have reported difficulty in filling job vacancies and Federal Reserve chairman Alan Greenspan has issued warnings that the extremely low inflation rates experienced in recent years may not continue because the labor market tightness will place pressure on wages, and thus on costs and prices (Greenspan 1998).

The question we ask here, however, is whether employment gains have been shared across the labor force. More specifically, does a rising economic tide lift the boats of those with lower skill levels or will specific policies be required to provide employment opportunities to the less skilled? We find that over the entire Clinton expansion only 700,000 of the almost 12 million new jobs created went to the half of the population that has not attended college. The putatively tight labor market has not succeeded in luring workers with no college education into the labor force. Thus, even at the peak of the expansion, there is still an intolerably high level of wasted

human resources. We conclude that well-targeted, active labor market policies will be required for those left behind by the Clinton rising tide.

Overall Labor Market Conditions

Superficially, it would appear that the Clinton tide has indeed lifted all boats. Not only are the aggregate employment statistics overwhelmingly positive, but the data also suggest that employment gains are widespread across sex, race, and age categories. For example, Bureau of Labor Statistics data in Table 1 show that the unemployment rate in the first half of 1998 for males aged 20 and over is the lowest since the early 1970s. For females aged 20 and over the 1998 unemployment rate is the best since the late 1960s. Even teens (16 to 19 years old), traditionally beset by unemployment considerably higher than other population segments, are finding a more receptive job market. The teen unemployment rate is at an almost 30-year low despite the fact that, as we shall soon see, college education is more important today than it was 30 years ago for obtaining and keeping a job.

Table 1 also shows that job growth has spread to traditionally disadvantaged racial groups. Blacks and Hispanics enjoy the lowest unemployment rates since the data were first disaggregated by race in the early 1970s. To be sure, both racial groups continue to endure unemployment rates much higher than their white counterparts, indicating that there remains considerable room for progress. For example, in the first half of 1998 blacks aged 16 and over had an unemployment rate of 9.05 percent compared with 3.88 percent for whites. Employment-to-population ratios (hereafter referred to as employment rates) are more ambiguous but still suggest similar trends. The overall employment rate for workers aged 16 and over has grown steadily throughout the 1990s and is at a record high of 64.1 percent. The current expansion has also led to improvements in the employment rates for Hispanics, black teens, and black females.

The overall picture then is one of falling unemployment rates and rising employment rates in the mid 1990s. This seems to be consistent with the view that labor markets are tight. However, closer analysis indicates that this is true only for the half of the population that has attended college.

Table 1 Employment and Unemployment Rates (percent), by Age, Sex, and Race

	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	1998
By Age											
Employment rate											
Population 16+	56.09	56.63	56.10	56.17	57.39	56.05	59.21	60.12	62.80	62.89	64.13
Teens (16–19)	45.40	43.40	40.50	38.80	42.30	43.20	46.60	44.30	45.30	44.23	45.30
Unemployment rate											
Labor force 16+	5.21	4.37	5.54	4.51	4.98	8.48	7.18	7.19	5.62	5.60	4.52
Teens (16–19)	12.16	11.11	14.74	14.96	15.27	19.96	17.80	18.60	15.57	17.34	14.28
By Sex											
Employment rate											
Males 20+	84.20	84.30	81.90	81.20	79.70	74.80	74.70	73.30	74.30	73.00	74.00
Females 20+	31.57	33.78	35.68	37.65	41.21	42.33	48.08	51.03	55.15	56.52	57.97
Unemployment rate											
Males 20+	5.32	4.00	4.38	3.43	3.02	6.78	5.57	6.23	4.67	4.78	3.68
Females 20+	5.11	4.38	5.11	4.45	4.78	8.04	6.36	6.62	4.89	4.93	4.18
By Race											
Employment rate											
White teens (16–19)	n/a	56.44	55.89	55.98	57.46	56.68	60.03	61.00	63.68	63.81	64.75
Black teens (16–19)	n/a	n/a	n/a	n/a	n/a	23.13	23.94	24.58	26.72	25.65	29.6
Black males 20+	n/a	n/a	n/a	n/a	n/a	66.53	65.83	64.56	67.13	66.13	66.60
Unemployment rate											
White 16+	n/a	3.85	4.98	4.06	4.58	7.77	6.32	6.20	4.83	4.88	3.88
Hispanic 16+	n/a	n/a	n/a	n/a	n/a	12.19	10.10	10.56	8.18	9.30	6.92
Black 16+	n/a	n/a	n/a	n/a	n/a	14.81	14.29	15.09	12.49	10.39	9.05

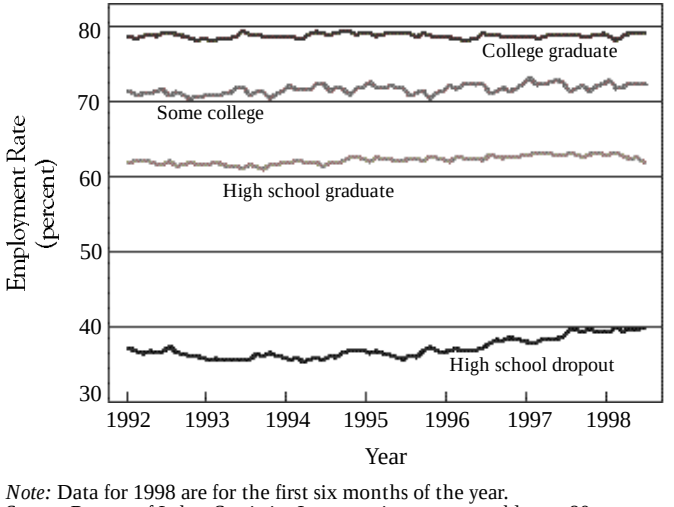
Note: Data for 1998 are for the first six months of the year.
Source: Bureau of Labor Statistics Internet site: www.stats.bls.gov:80.

Labor Market Conditions for Low-Skilled Workers

One might expect that as an expansion continues and as labor market conditions become tight, employers would reach further down the skills continuum. Perhaps an employer would prefer to hire a college graduate, but if the market has become so tight that college graduates must be bid away from other firms, the employer might have to settle for an employee who has not earned a college degree and invest in additional training to bring the employee's skills up to the desired level. An employer who would have been happy to hire someone with a couple of years of college education might have to settle for a high school graduate. And so on down to the employer who must reach into the pool of high school dropouts.

We would expect that as labor markets tighten, unemployment rates would fall first for workers of higher skill levels and then for workers with less skill and education. Employers would then seek employees from among those who were out of the labor force, trying to entice them with appealing labor market opportunities and higher wages. We would thus see rising employment rates, first for the higher skilled and then for the lower skilled. Eventually, if labor markets became sufficiently tight, the labor force participation rates for all skill levels should converge toward some maximum feasible rate.

Figure 1 Employment Rates, Population 25 and Over, by Education, 1992 to 1998

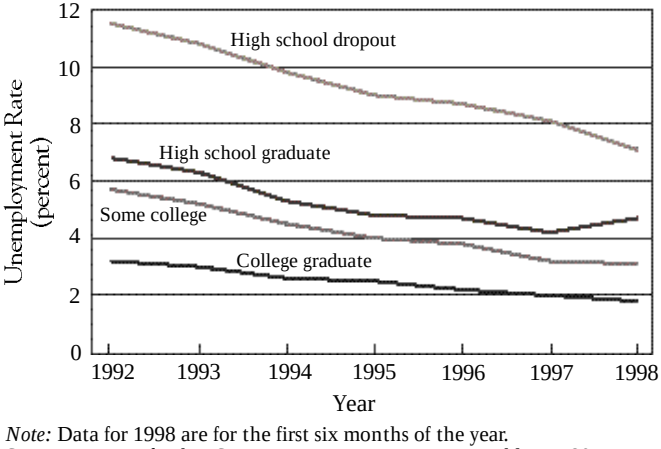


Note: Data for 1998 are for the first six months of the year.
Source: Bureau of Labor Statistics Internet site: www.stats.bls.gov:80.

On the surface, this appears to be happening. For example, Joseph Ritter states that "lower-skill groups have increased their employment rates significantly; since 1994 the ratio for those who did not finish high school has risen by about 3 percentage points" (Ritter 1998, 1). Indeed, Ritter reports that all of the growth of the overall employment rate can be attributed to those who have not obtained a college degree, with the greatest gains at the lowest levels of educational attainment. As Figure 1 shows, the employment rate for those with a college degree or better has remained virtually constant throughout the expansion at just under 79 percent; the rate for those with some college (those who either did not graduate from college or earned an associate's degree) has risen 1.3 percentage points to 72.3 percent; and the rate for high school graduates has risen 1.1 percentage points to 62.7 percent. In contrast, the employment rate for high school dropouts has risen more than 3 percentage points to 39.6 percent.[1]

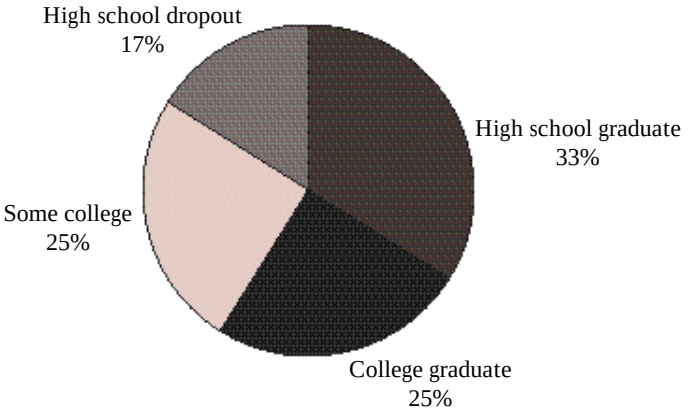
Ritter notes that although "unemployment rates produce a less dramatic picture" (1998, 1), they, too, provide supporting evidence for the view that a rising tide has lifted all boats. As Figure 2 shows, between 1992 and 1998 the unemployment rate fell from 3.2 percent to 1.8 percent for college graduates, from 5.7 percent to 3.1 percent for workers with some college, and from 6.8 percent to 4.7 percent for high school graduates. As with employment rates, the largest gain was experienced at the bottom of the educational ladder: the unemployment rate fell 4.4 percentage points to 7.1 percent for high school dropouts.

Figure 2 Unemployment Rates, Population 25 and Over, by Education, 1992 to 1998



Note: Data for 1998 are for the first six months of the year.
Source: Bureau of Labor Statistics Internet site: www.stats.bls.gov:80.

Figure 3 Population, 25 and Over, by Education, 1998



Note: Data for 1998 are for the first six months of the year.
Source: Bureau of Labor Statistics Internet site: www.stats.bls.gov:80.

Presently, 17 percent of the population 25 and over have not finished high school, 33 percent are high school graduates but did not attend college, 25 percent have some college education or an associate's degree, and another 25 percent have a college degree (see Figure 3). Thus, the U.S. population is just about evenly divided between those who have at least some college and those who have none. Analysts believe that educational attainment is a good proxy for skill level, so the data for employment and unemployment rates seem to support the belief that the current expansion has increased job opportunities, with the greatest gains accruing to those with the lowest skill level—and especially for high school dropouts. One could conclude that if the expansion continues, job opportunities would "trickle down" so that eventually both the unemployment rate and the employment rate of high school dropouts might approach those for college graduates.

There are several reasons to question such a rosy scenario. First, the gaps between those who attended college and high school dropouts are huge, especially for employment rates. Well over half of noninstitutionalized high school dropouts remain out of the labor force, compared with only a quarter of those who attended college. If the current expansion raises the employment rate for high school dropouts by only about 3 percentage points over a period of 6 years, by simple extrapolation, the expansion would have to continue for another 78 years before the gap could be closed.

Second, one would expect the trend to be reversed as soon as the economy slows, with the "last hired" low-skilled workers being the "first fired." Many analysts, including David A. Levy and Wynne Godley of the Levy Institute, believe that the expansion will soon end and that the likelihood of a deep and prolonged recession is high. This means the gaps could become wider than they were in 1992, before the expansion.

Finally, and more importantly, careful analysis of employment and population data casts doubt even on the conclusion that employment opportunities increased significantly for the less skilled during the robust Clinton expansion. While it is true that unemployment rates fell and that employment rates rose, it is less than clear that these data indicate substantially more favorable labor market conditions for the lower half of the skills ladder. Indeed, the apparent improvement may have had more to do with reduction of the population of those who have not attended college. For example, the high school dropout population fell by 2.8 million, or 9 percent, and the number out of the labor force fell by nearly 2 million (see Table 2). Further, as we will show, almost all the job gains went to the population with at least some college education.

Figures 4 and 5 present the data in diagrammatic form to clarify the situation. The top part of Figure 4 shows that the U.S. population grew by 11.4 million between 1992 and 1998, employment rose by 11.6 million, unemployment fell by 2.7 million, and the number of individuals out of the labor force rose by 2.5 million. The situation, then, is consistent with the view that we currently have a tight labor market because employment grew faster than population. However, the bottom part of Figure 4 shows that virtually all of the population growth consisted of additions of individuals who had some college or had graduated college—two groups that already had high employment rates. The number of high school dropouts fell by 2.8 million, with the largest decline in the number of high school dropouts who were out of the labor force.[2] Indeed, somewhat surprisingly, there was no net gain in the number of high school dropouts employed over the whole expansion. This means that all of the rise of the employment rate for that group (reported above and by Ritter) was due to a shrinking population and none to rising employment. High school graduates gained just under 800,000 jobs, while 10.8 million of the 11.6 million new jobs went to those who had at least some college education. Although it is true that the number of unemployed fell by 745,000 for high school dropouts and by 1.1

Table 2 Population and Labor Force, 25 and Over, by Education, 1992 to 1998

	1992	1993	1994	1995	1996	1997	1998	Change
Population (in thousands)								
High school dropout	32,457	31,216	30,676	30,092	30,166	29,757	29,677	–2,780
High school graduate	57,106	57,562	56,643	56,147	56,417	57,424	57,591	485
Some college	36,013	37,776	39,948	41,463	41,688	41,946	42,128	6,115
College graduate	34,631	35,707	36,999	38,507	39,976	41,200	42,175	7,544
Total	160,206	162,261	164,266	166,209	168,247	170,327	171,570	11,364
Employment (in thousands)								
High school dropout	11,847	11,203	11,056	10,944	11,321	11,549	11,752	–95
High school graduate	35,308	35,401	35,141	35,002	35,294	36,177	36,092	784
Some college	25,580	26,896	28,695	29,679	29,991	30,319	30,471	4,891
College graduate	27,272	28,112	29,255	30,413	31,457	32,486	33,284	6,012
Total	100,007	101,613	104,147	106,039	108,064	110,530	111,599	11,592
Unemployment (in thousands)								
High school dropout	1,636	1,359	1,197	1,079	1,077	1,015	891	–745
High school graduate	2,589	2,364	2,982	1,746	1,724	1,605	1,487	–1,102
Some college	1,528	1,483	1,335	1,228	1,164	1,020	956	–572
College graduate	895	854	773	763	724	666	608	–287
Total	6,648	6,060	6,287	4,816	4,689	4,306	3,942	–2,706
Out of labor force (in thousands)								
High school dropout	18,974	18,654	18,423	18,069	17,768	17,193	17,034	–1,940
High school graduate	19,208	19,797	18,520	19,399	19,398	19,642	20,012	803
Some college	8,905	9,396	9,918	10,556	10,534	10,608	10,701	1,796
College graduate	6,464	6,741	6,971	7,331	7,795	8,048	8,282	1,818
Total	53,551	54,588	53,832	55,354	55,495	55,490	56,029	2,477
Unemployment rate (percent)								
High school dropout	11.50	10.80	9.80	9.00	8.70	8.10	7.10	–4.40
High school graduate	6.80	6.30	5.30	4.80	4.70	4.20	4.70	–2.10
Some college	5.70	5.20	4.50	4.00	3.80	3.20	3.10	–2.60
College graduate	3.20	3.00	2.60	2.50	2.20	2.00	1.80	–1.40
Weighted average	6.20	5.60	5.70	4.30	4.20	3.80	3.40	–2.80
Employment rate (percent)								
High school dropout	36.50	35.89	36.04	36.37	37.53	38.81	39.60	3.10
High school graduate	61.83	61.50	62.04	62.34	62.56	63.00	62.67	0.84
Some college	71.03	71.20	71.83	71.58	71.94	72.28	72.33	1.30
College graduate	78.75	78.73	79.07	78.98	78.69	78.85	78.92	0.17
Weighted average	62.42	62.62	63.40	63.79	64.22	64.89	65.05	2.63

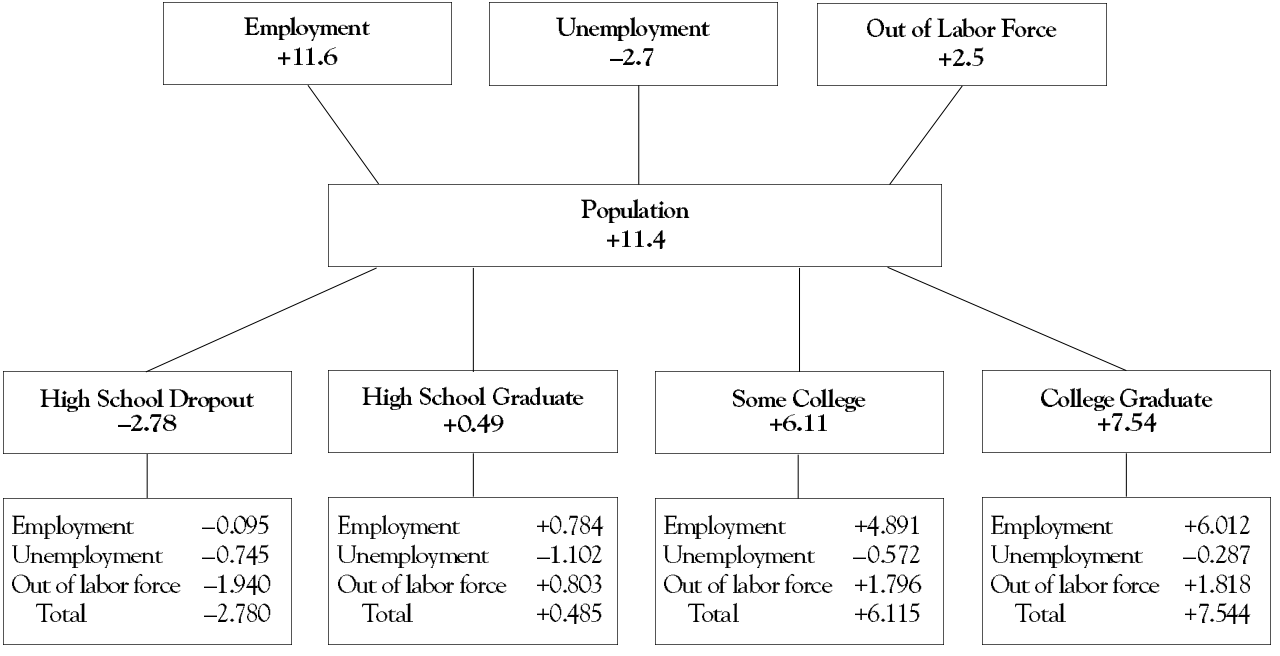
Note: Change is calculated as the 1998 value minus the 1992 value. Data for 1998 are for the first six months of the year.
Source: Bureau of Labor Statistics Internet site: www.stats.bls.gov:80.

million for high school graduates, the overall employment picture is not one of substantial improvement for those with low skills. One could argue, based on the increase in their employment rate, that the situation of those who did not attend college (high school dropouts and graduates) improved. However, over the entire Clinton expansion, only about 6 percent of the new jobs (roughly 700,000 jobs) were created for the half of the population that has not attended college. Thus, we believe the data at least partially contradict the story that says a tight labor market is forcing firms to reach down to hire the less skilled.

Figure 5 examines the employment picture in more detail. We calculated how much of the increase of employment came from a reduction in the number of unemployed, how much from a reduction in workers who are out of the labor force, and how much from population growth. Of the 11.6 million net employment increase, 2.7 million can be attributed to a reduction of unemployment, with 1.8 million attributed to a reduction of unemployment among those who did not attend college (1.1 million high school graduates and 745,000 high school dropouts) and just under 1 million to a reduction of unemployment of those with at least some college (287,000 college graduates and 572,000 with some college). The remaining increase of 8.9 million in employment can be attributed to net entrants into the labor force, due to rising population and to rising labor force participation rates. Somewhat surprisingly, high school dropouts and high school graduates account for a net loss here; reduction of unemployment (by 1.8 million) for these groups is more than the total increase of employment for these two groups (689,000)—by an amount equal to more than a million. In other words, all of the employment gain that can be attributed to net entrants came from jobs given to workers who attended college. Net entrants with at least some college amounted to 10.1 million and reduction of unemployment for this group filled another 859,000 jobs. This means that 10.9 million new jobs were filled by that half of the population with at least some college education, leaving less than 700,000 new jobs to be shared by the half of the population that did not attend college.

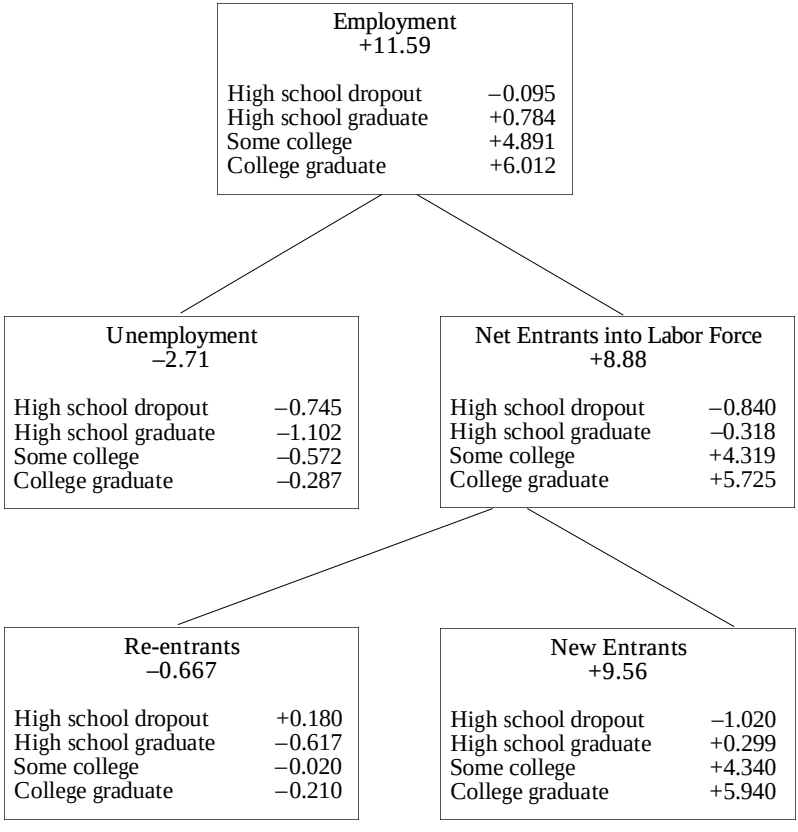
When we further analyze the net entrants to separate re-entrants from new entrants, we estimate that all the employment growth can be attributed to new entrants. Here we have used proxies because it is impossible to identify re-entrants and new entrants using aggregate time series data. We took population growth (or decline) for each educational group and multiplied it by

Figure 4 Changes in Population, 25 and Over, by Employment Status and Education, 1992 to 1998 (in millions)



Note: Data for 1998 are for the first six months of the year.
Source: Bureau of Labor Statistics Internet site: www.stats.bls.gov:80.

Figure 5 Changes in Employment, Population 25 and Over, by Education, 1992 to 1998 (in millions)



Note: "New entrants" are calculated by multiplying the change in population (1992 to 1998) by the 1992 employment rate; "re-entrants" are calculated as net entrants less calculated new entrants. Numbers may not add up to the third digit because of rounding. Data for 1998 are for the first six months of the year.
Source: Bureau of Labor Statistics Internet site: www.stats.bls.gov:80.

the group's 1992 employment rate to obtain an estimate of how many of the net additions to (subtractions from) that group's population should have been expected to find jobs (lose jobs). Again, the college-educated account for more than the total net employment gain by new entrants—sheer growth of the numbers of college educated should have been sufficient to fill over 10 million new jobs. In other words, job creation during the Clinton expansion was marginally greater than what was required to provide jobs for college-educated new entrants; the "extra" jobs were filled by reducing the ranks of the unemployed. Job creation was not sufficient to draw workers from out of the labor force; indeed, in an important sense, there was net job opportunity loss for the low-skilled, out-of-the-labor-force

individuals. This can be attributed either to relatively rapid growth of the college-educated population or to the relatively low pace of net job creation, as one prefers. The overall picture is certainly not one of tremendous employment gains for the bottom half of the skills ladder.

Our analysis, then, raises questions about the degree of labor market tightness. Although it may be true that labor bottlenecks exist, the overall picture is not one of significant pressure on labor markets—job creation just kept pace with the increase of the number of college-educated workers. This view is consistent with a recent analysis by Bluestone and Rose (1998), who call into question the usefulness of the unemployment rate as a measure of labor market slack because it fails to reflect accurately hours worked by people who already have jobs. This shortcoming, they argue, goes a long way toward explaining why the actual unemployment rate has bettered most conventional measures of the nonaccelerating-inflation rate of unemployment (NAIRU) without sparking inflation. The authors show how hours worked have been steadily climbing since the early 1980s, returning to a level not seen since the late 1960s and leading to a de facto labor supply increase that has kept a lid on wages. They argue that the steep decline in the unemployment rate over the last five years occurred alongside increased job insecurity and more or less stagnant hourly wages, which have made workers willing to work longer hours at prevailing wages. Longer working hours have increased the elasticity of labor supply so that output can rise at a fast clip without inducing inflation by producing bottlenecks for workers with particular skills—since the already employed workers can be induced to put in extra hours.

As Bluestone and Rose show, the picture for high school dropouts appears worse still when one looks at hours worked data. College workers have, on average, the longest workweek, followed by high school graduates, workers with some college, and, finally, high school dropouts. In 1995, for example, the average college worker put in 41.6 hours, 18 percent more than high school dropouts, who averaged only 35.2 hours, and the gap has been steadily widening. Whereas employees in the college graduate, some college, and high school graduate categories have all increased hours worked since the 1970s, high school dropouts have seen a systematic decline. Thus, not only are high school dropouts stymied by an unreceptive job market, but they are also missing out on one of the few ways that workers

have been able to increase real income in recent years, and that is by working additional hours.

This reinforces the notion that there remains considerable slack for those in the lowest educational category. Not only is the employment rate much lower for high school dropouts than for other educational categories, but these workers also have much unused capacity in terms of hours worked. Recent wage data give added weight to this argument. Wages and benefits for blue-collar workers rose 2.7 percent for the year ended June 1998, compared with a 4 percent increase for white-collar workers and a 3.9 percent increase for service-sector workers.

The Potentially Employable

As we noted above, unemployment rates for the less educated are significantly higher than for those with at least some college. For example, high school dropouts currently have an unemployment rate greater than 7 percent, while the rate is 1.8 percent for college graduates and 3.4 percent for the 25 and over labor force as a whole. However, much more importantly, the employment rate is strikingly lower for those with the lowest educational attainment; an astounding 57 percent of the noninstitutionalized, 25 and over, high school dropout population is currently out of the labor force, compared with just under 20 percent of college graduates in the same age group. Even after the long and robust expansion of the 1990s, over 56 million noninstitutionalized, 25 and over adults remain out of the labor force—many times greater than the 3.9 million who are officially unemployed. Admittedly, many of the 56 million do not wish to participate in the labor force; some are willing to participate only on some conditions, and almost 27.7 million are 65 and over. However, it is useful to try to estimate how many of those currently out of the labor force might be a potential source of labor supply.

Economists have long understood that flows among official categories are large: about half of those individuals who lose jobs become officially classified as out of the labor force rather than as unemployed (Marshall, Briggs, and King 1984, 364). Further, many of those who obtain jobs come from out of the labor force rather than from the unemployed, and there are

individuals who officially come from out of the labor force to join the ranks of the unemployed. Some empirical research has even shown that for certain population segments there may be no substantive difference between being unemployed and out of the labor force (Summers and Clark 1979; Tano 1991; Gonul 1992; and Jones and Riddell, forthcoming). For this reason, one cannot rely solely on data for the officially unemployed to obtain estimates of how many individuals would accept jobs if they became available. Further, job availability alone does not determine whether an individual will come into the labor force. Individuals may be out of the labor force for a number of reasons: prospective wages may be too low (for example, for those with low skills); family responsibilities may be too great (for example, a person might have to remain home to care for children or sick relatives); cultural norms and expectations may raise barriers (for example, labor force participation by women is frowned upon among some groups); poor health (mental and physical) or personal characteristics (gang membership, criminal record) may diminish individuals' desire to work and their desirability from the perspective of potential employers.

A recent study by former Bureau of Labor Statistics economist Monica Castillo (1998) provides evidence that individuals classified as nonparticipants are not always unwilling or unable to work. Castillo found that 10 percent (or 6.2 million) of those classified as out of the labor force in 1994 said they wanted a job. Blacks and young people made up a large portion of these people. By 1995, 41 percent of nonparticipants who had said they wanted a job in the 1994 survey were in the labor force. In other words, of the 6.2 million who had been out of the labor force but said they wanted to work, more than 2.5 million came into the labor force during the next year. Castillo's study also indicates that prior work experience as well as current participation in the labor force are important factors in determining future employability. For example, only one-third of those who in 1994 were classified as nonparticipants and said they wanted a job were able to find work in 1995, compared with a 53 percent success rate (in finding a job) for those who in 1994 were classified as unemployed. These data suggest there is a significant pool of potential workers outside the measured labor force. However, most of them find it difficult to get a job even when they come into the labor force to search for work.

It is highly likely that characteristics that reduce the likelihood that one is in the labor force are negatively correlated with educational attainment.

Thus, low employment rates for those without any college education cannot be attributed to lack of job availability alone. Many of these individuals have characteristics that make them less likely to be employed in addition to having low education and skills. However, we believe it is still worthwhile to obtain what might be thought of as an upper-bound estimate of the number of potentially employable, which would include not only those who are actively seeking work (now counted as unemployed), but also those who are currently out of the labor force but who might be employed if some conditions were met.

We will assume that the labor force participation rate for college graduates, 25 and over, in the middle of 1998 (80.4 percent) represents a feasible maximum on the grounds that given tight labor markets for the highly skilled, all college graduates who want to work are now working or actively seeking work, with only some frictional unemployment and with virtually no one involuntarily out of the labor force. Using the participation rate of the college graduates to find the target number of

Table 3 Potentially Employable Workers, 25 and Over, by Education (in thousands)

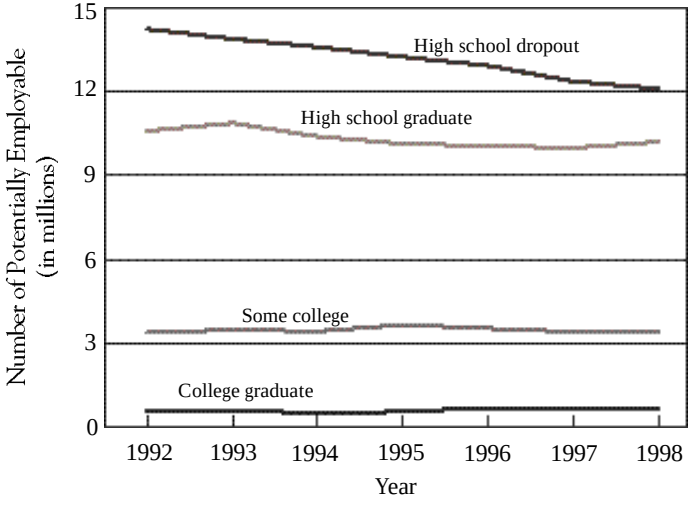
	1992	1993	1994	1995	1996	1997	1998	Change
Actual employment								
High school dropout	11,847	11,203	11,056	10,944	11,321	11,549	11,752	–95
High school graduate	35,308	35,401	35,141	35,002	35,294	36,177	36,092	784
Some college	25,580	26,896	28,695	29,679	29,991	30,319	30,471	4,891
College graduate	27,272	28,112	29,255	30,413	31,457	32,486	33,284	6,012
Total	100,007	101,613	104,147	106,039	108,064	110,530	111,599	11,592
Target employment (80.4%)								
High school dropout	26,095	25,098	24,664	24,194	24,254	23,925	23,860	–2,235
High school graduate	45,913	46,280	45,541	45,142	45,359	46,169	46,303	390
Some college	28,954	30,372	32,118	33,336	33,517	33,725	33,871	4,916
College graduate	27,843	28,708	29,747	30,960	32,141	33,124	33,908	6,065
Total	128,806	130,458	132,070	133,632	135,271	136,943	137,942	9,136
Potentially employable								
High school dropout	14,248	13,894	13,608	13,250	12,932	12,376	12,108	–2,140
High school graduate	10,605	10,879	10,400	10,140	10,065	9,992	10,211	–394
Some college	3,374	3,475	3,424	3,657	3,527	3,406	3,400	25
College graduate	571	596	492	547	684	639	624	53
Total	28,799	28,845	27,923	27,593	27,207	26,412	26,343	–2,456

Note: "Change" is calculated as the 1998 value minus the 1992 value. "Potentially employable" is calculated as the difference between target employment and actual employment. Data for 1998 are for the first six months of the year.
Source: Bureau of Labor Statistics Internet site: www.stats.bls.gov:80.

employed (80.4 percent of the population), we then calculated how many potentially employable individuals existed for each educational category by subtracting the number of employed from the target number of employed (see Table 3). Our calculations show that as of mid 1998, there were 624,000 college graduates, 3.4 million individuals who had some college, 10.2 million high school graduates, and 12.1 million high school dropouts, for a total of 26.3 million potentially employable. This means that if we could increase labor force participation rates of all educational groups up to the rate currently experienced by college graduates, 26.3 million more individuals would be in the labor force. Obviously, this number is much in excess of the number of officially unemployed (which was less than 4 million for the 25 and over population in mid 1998).

As shown in Table 3 and Figure 6, the current expansion has reduced the number of potentially employable by about 2.5 million. Essentially, all of the reduction can be attributed to a reduction of the number of unemployed (a point we made above); in spite of the extent of the expansion, there has been no improvement with regard to job opportunities for those who are out of the labor force. The rising tide has done nothing to reduce the waste of human potential that results from keeping out of the

Figure 6 Potentially Employable Workers, 25 and Over, by Education, 1992 to 1998



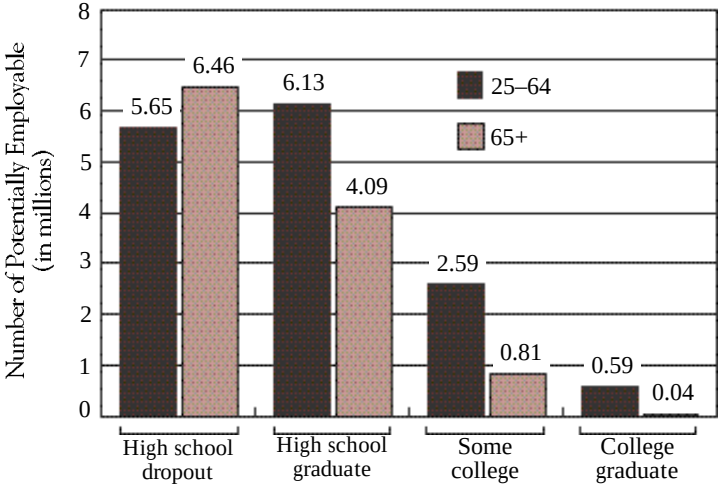
Note: Data for 1998 are for the first six months of the year.
Source: Bureau of Labor Statistics Internet site: www.stats.bls.gov:80.

labor force individuals who may be able to participate. If each of the 26.3 million had been employed full time and had produced $5 worth of GDP per hour employed, GDP would have been $263 billion higher.

We separated each educational category into two age groups—25 to 64 and 65 and over—to see if the inclusion of people 65 and over was responsible for the startlingly high number of potentially employable workers, especially among high school dropouts (see Figure 7).[3] Using the 1998 (first half) participation rate for college graduates in the age group 25 to 64, which is 88 percent, we then calculated how many potentially employable individuals existed for each educational category in the same way as before. The removal of the 65 and over population has the effect of reducing the number of potentially employable workers by about 11.4 million, with almost all of the decline accounted for by the bottom half of the education ladder.

More than half of the decline can be accounted for by high school dropouts alone. This is not surprising. First, we estimate that about two-thirds of the 65 and over population have a high school diploma or less versus about half for the entire population. Second, and from the point of view of more traditional labor market analysis, one would expect 65 and over people to

Figure 7 Potentially Employable Workers, by Age and Education, 1998



Note: Total potentially employable by age group: 14.95 for 25–64; 11.4 for 65+. Data for 1998 are for the first six months of the year.
Source: Bureau of Labor Statistics Internet site: www.stats.bls.gov:80.

place a higher premium on leisure time, especially middle- and upper-class seniors with pensions and hefty retirement funds, not to mention government safety nets. Thus, we might not expect a large influx of workers from the 65 and over population segment—especially those with a college education.

On the other hand, given that lifetime earnings are significantly affected by educational attainment, we expect that many of the nearly 10.6 million elderly with no college experience that we counted as potentially employable would, if given a chance, supplement their relatively low retirement income with wages if jobs were made available. Indeed, the vast majority of the 65 and over population is classified as out of the labor force and the tendency is particularly striking for high school dropouts. We estimate that about 92 percent of high school dropouts aged 65 and over are out of the labor force, compared with 79 percent for college graduates of the same age. College-educated individuals 65 and over are either working or have probably chosen to stay out of the labor force. High school dropouts 65 and over probably do not have a choice.

That being said, the figure of 15 million potentially employable workers for the 25 to 64 age group is a reasonable estimate of the number of people who could work and it might be supplemented by some number of elderly workers who would choose to participate in labor markets if given a chance. We also note that the unemployment rate for high school dropouts worsens when we exclude 65 and over individuals, rising to about 7.3 percent from 7.0 percent because few of the 65 and over population are counted as unemployed. Furthermore, no matter how one looks at it, there is still a glaring disparity between the number of potentially employable workers at the low end of the education scale and the number at the high end. Certainly, most of the unemployment for college graduates can be accounted for by frictional unemployment. The same cannot be said for high school dropouts or high school graduates who are unemployed or might be involuntarily out of the labor force.

Of course, it would be wrong to suppose that the 26.3 million potentially employable people over the age of 25, or the 15 million potentially employable in the 25 to 64 age group, are producing nothing of value. Many are caring for young children or the sick, many participate as volunteers in a variety of useful activities, many provide household services that make it

easier for others to participate more fully in the labor force, and others probably participate in "underground" activities—some of which may add to our nation's quality of life while others probably reduce it. Also, given our state of knowledge, it is impossible to predict accurately how many of these individuals would voluntarily participate under reasonable conditions (for example, if a job were offered at a minimum wage with a package of benefits that might include health care and child care). Our point here is not to assert that it is vital to ensure that every one of these individuals participates in the labor force, but to question the ability of a rising tide to raise all boats.

One might object to our analysis on the basis of Occam's razor: perhaps all of those who are currently out of the labor force really are out of the labor force. We see reasons to believe that this is not the case. First, as mentioned above, we know that flows among the official categories are large—a person currently counted as out of the labor force may well show up as employed or unemployed in a later survey. As the study by Castillo demonstrated, many of those currently out of the labor force do want to work and may well enter the labor force over the course of a year. Second, anecdotal evidence indicates that when a major employer announces new positions, long queues of applicants result; employers complain about the quality of applicants, but not about the lack of applicants.[4]

It is important not to lose sight of the essence of our argument. We believe it is misleading to conduct a "static" analysis of labor market conditions; what is required is a "dynamic" analysis. Although it may be true that many of those with low educational attainment really do not want to or cannot work, this does not mean that policy should turn a blind eye to the problem. The relatively low employment rate of high school dropouts and even of high school graduates after removal of the 65 and over population indicates there is a serious social problem that apparently cannot be resolved by a robust and long expansion alone. Even if none of these individuals could be drawn into the labor force now, we need to put into place policies that would increase job opportunities for the next crop of young people who for whatever reason do not attend college. It is highly probable that the longer individuals remain outside the labor force, the less likely it becomes that they will become employed, especially if they have low educational attainment. Long bouts of unemployment also entail high personal and societal costs. Various psychological studies have linked prolonged unemployment to

a drop in expectations and motivation to seek work (Feather and Davenport 1981), perception of diminished self-worth (Cohn 1978), and higher rates of suicide, mental illness, and alcohol abuse (Mallinckrodt and Fretz 1988). Other studies have shown that unemployment is highly correlated with crime, gang membership, divorce, and loss of human capital.

Employment opportunities must be created to raise the labor force participation rates of the young who will not attend college. To repeat, half of the U.S. population has not attended college and this ratio is not likely to change any time soon. So, even if far less than our calculated 26.3 million are potentially employable today, well-designed policies could reduce the waste of human potential that undoubtedly exists and will continue to exist when over 60 percent of high school dropouts (or 42 percent after removing the 65 and over population) and nearly 40 percent of high school graduates (or 25 percent after removing the 65 and over population) are not employed, even after a long and robust expansion.

A Rising Tide Is Not Enough

Our analysis harkens back to the old debate between Keynesians and Institutionalists on the best way to increase job opportunities for disadvantaged groups. Is an expanding economy with macro policies to fine-tune aggregate demand sufficient, as the Keynesians argue, or are well-targeted micro policies required, as the Institutionalists hold? During the 1960s and 1970s the Keynesian position came to dominate. While it is true that interventionist labor market programs were tried even during the Keynesian 1960s and reached a culmination in the early 1970s, they were gradually scaled back, if not abandoned altogether, by the end of the 1970s. At the same time, the stagflationary 1970s cast doubt on Keynesian aggregate demand fine-tuning, with most economists concluding that attempts to lower unemployment rates through macro policies that kept aggregate demand high brought unacceptably high inflation rates. Thus, by the 1990s both the Keynesians and the Institutionalists had fallen out of favor.

The prevailing view now is that free markets will generate high growth and low unemployment (or, at least, the "natural rate" of unemployment). However, many analysts have already remarked on the curious nature of the Reagan-era expansion, during which inequality increased significantly

(Peterson 1994). We have shown here that while job markets superficially appear to be tight, few job opportunities have "trickled down." This complements analyses by other authors that show the Clinton expansion has not reduced inequality (Wolff 1998; Mishel and Bernstein 1995; Karoly 1996). Our conclusion is that neither the Reagan rising tide nor the Clinton rising tide has been sufficient to lift the boats at the bottom. It appears that the Institutionalists were right after all. No matter whether expansions are packaged as Keynesian–led, supply side–led, or free market–led, they must be supplemented with active labor market policy if job opportunities are to be increased for those at the bottom.

Policy should provide paths to labor force participation other than college attendance. Even if an expansion could be maintained for decades, this would not increase the employment rates of the bottom half of the population to the rate enjoyed by college graduates. Although it is true that expansions lower unemployment rates of all groups, high unemployment rates are not the major problem for those with low educational attainment. Rather, their problem is one of low employment rates. Expansions appear to promote "hiring off the top," that is, filling job vacancies with those who have attended college while doing far less for those at the bottom. We expect that inflation would be induced long before firms would "hire off the bottom" at a pace sufficient to significantly enhance real job opportunities for high school dropouts.

The United States has a long tradition of active labor market policies, ranging from informal policies such as unrestricted immigration in the late nineteenth and early twentieth century to broad-based policies such as the Comprehensive Employment and Training Act (CETA), which was enacted in 1973 (see Tables 4, 5, and 6). As Marshall, Briggs, and King (1984) make clear, CETA represented the apex of interventionist labor market policies that took root in the post-World War II era, particularly during the 1960s and 1970s. Prior to this Keynesian period, employment policy was to a large extent an ad hoc method of coping with an immediate problem, such as the influx of soldiers from the first and second World Wars (Smith-Fess Act, 1920; Servicemen's Readjustment Act, 1944) or a temporary measure to cope with the Great Depression (Wagner-Peyser Act, 1933). Economic policy was dominated by the view that unemployment was at worst a short-term phenomenon.[5] Of course, there were some longer-term strategies, as shown in the tables, but they were concerned mainly

Table 4 Pre-1960 Employment Policies

Morill Act, 1862	The act established land grant universities—schools designed to meet "practical needs," in fields such as agriculture and engineering, that were not met by private universities, which were concerned with classical and theological subjects.
Unrestricted immigration, pre-1924	Immigration was (and to some extent continues to be) a major source of skilled and unskilled workers.
Smith-Hughes Act, 1917	The training programs established under this act were designed to provide workers with vocational education over the course of their lifetime. Federal involvement was limited to matching state funds. The programs failed to adapt to the changing structure of the labor market, as did the similar programs set up under the George-Barden Act in the 1940s.
Smith-Fess Act, 1920	The act was initially intended to provide training programs to help rehabilitate injured World War I soldiers. It was later applied to injured or handicapped World War II and then Korean War soldiers and eventually was extended to handicapped civilians. The federal government matched state funding. Quality varied significantly from state to state. The programs were not effective because of lack of expertise and shortages of trained personnel.
Wagner-Peyser Act, 1933	This federally funded and state-run depression-era policy measure was designed to place unemployed workers in jobs.
National Apprenticeship Act (Fitzgerald Act), 1937	Apprenticeship programs emphasized learning-by-doing with a combination of classroom instruction and on-the-job training. The act set minimal standards in programs overseen by federal or state government. The apprenticeship program was reworked in the late 1960s and 1970s to reflect the new labor market.
George-Barden Act, 1946	As with the Smith-Hughes Act, the training programs set up by this act were designed to provide workers with lifetime vocational education. Federal involvement was limited to matching state funds. The programs did not change with changes in the labor market; by 1965 most of the participants were in agriculture or homemaking classes.
Servicemen's Readjustment Act (GI Bill), 1944	The GI Bill enabled millions of ex-soldiers to obtain vocational and technical training, on-the-job training, and college and postgraduate education. Most of these people would never have had such opportunities in the absence of these veterans' benefits.

Source: Based on Marshall, Briggs, and King 1984; Mangum 1966; Gottschalk 1998.

with education (Morill Act, 1862) or apprenticeship programs (National Apprenticeship Act, 1937).

CETA was a radically different beast. It represented an amalgamation of three important pieces of labor legislation from the 1960s and early 1970s. The first was the Manpower Development and Training Act (MDTA) of 1962, which provided for a range of services including classroom job

Table 5 Post-1960 Employment Policies

Manpower Development and Training Act (MDTA), 1962	The federal government provided funds for a wide range of work-related services including classroom job training, adult basic education, English as a second language, counseling, career assessment, job development, and job placement. It also provided training stipends and some monies for transportation and tools.
Economic Opportunity Act (EOA), 1964	The EOA sought to attack the roots of poverty through a variety of programs including help for preschool children with learning problems, work experience for teenagers, job training for welfare recipients, and job creation for older workers in rural areas. It set up community-based agencies to sponsor some programs and to work on issues such as voter registration, day care, health services, and transportation.
Emergency Employment Act (EEA), 1971	As part of the federal government's response to stubbornly rising unemployment rates, the act provided funds to local governments to hire people in public sector jobs.
Public Service Employment Program (PSE), 1971	The PSE fell under the EEA, which in turn became part of CETA in 1973 (see Table 6). Following the tradition of government make-work programs in the 1930s, it was designed primarily as a countercyclical stabilization tool to fight unemployment and hence as an alternative to tax cuts. By the mid 1970s, it was also seen as a means of addressing structural unemployment related to sex, race, geography (rural versus urban), and income. It underwent five major changes from 1974 to 1980 that led to considerable administration and planning problems.

Source: Based on Marshall, Briggs, and King 1984; Mangum 1966; Gottschalk, 1998.

Table 6 Comprehensive Employment and Training Act (CETA)

Phase 1. Enactment, 1973	CETA was an amalgamation of the MDTA, EOA, and EEA into a single umbrella organization and legal structure. It was viewed as a move toward a more decentralized employment policy. Originally intended to offer transitional employment, it was initially concerned with training and work experience and was geared toward unemployed, underemployed, and low-income workers. By 1977, however, the program was primarily being used to create jobs under the auspices of PSE (see Table 5) and as a countercyclical macroeconomic policy.
Phase 2. Reorientation, 1978	CETA funding was extended for four more years. A growing desire for tax cuts coupled with allegations of fraud by certain "prime sponsors" (cities or counties that received federal funds under CETA) pushed legislators to reorient CETA away from broad support for the unemployed toward support for those who were both unemployed and economically disadvantaged. The CETA administration was centralized and procedures were made more complicated, making implementation difficult and confusing. Prime sponsors were required to set up private industry councils to act as advisers.
Phase 3. Irrelevance, 1981–1982	The policy orientation beginning in the late 1970s meant that CETA had little to offer as the economy moved into recession in the early 1980s. Local communities, who had viewed CETA as a revenue-sharing arrangement, lost interest in the program and consequently its political appeal diminished. In 1982 the Reagan administration refused to renew CETA despite conclusive research showing it to have been beneficial to participants.
Post-CETA. Job Training Partnership Act, 1982	This successor to CETA embodied many CETA features, including a focus on the economically disadvantaged, but differed in several important ways, most notably in its underlying philosophy that public sector training efforts should prepare workers for private sector jobs. Thus, the JTPA gave private councils more power in setting up and running work programs; state governments were also given more power. The act represents the beginning of the end for federal PSE policies.

Source: Based on Marshall, Briggs, and King 1984; Mangum 1966; Gottschalk 1998.

training, adult basic education, English as a second language, counseling, and a host of other programs designed to produce workers suited to the job market. The second was the Economic Opportunity Act (EOA) of 1964, which sought to make a frontal attack on the roots of poverty through employment and training programs for children, teenagers, and older workers in rural areas. The third was the Emergency Employment Act (EEA) of 1971, which provided funds for hiring unemployed workers in public sector jobs and was designed to cope with the increasing number of unemployed. Subsumed within the EEA was the Public Service Employment (PSE) program, which was also initially seen as a temporary program to fight unemployment but was later reworked into a countercyclical fiscal tool that could also be used to redress certain sex and race imbalances in the employment ranks.

Over time, CETA changed from a comprehensive, active labor market program to a public sector employment program designed to offset private sector employment fluctuations. In 1978 CETA was reoriented toward helping only those who were both unemployed and economically disadvantaged. The 1978 changes also centralized power and added layers of complexity that reduced local interest in the program. CETA was left to die in 1982 under the Reagan administration, which replaced it with a similar though more private sector–oriented policy program called the Job Training Partnership Act (JTPA) in 1982. Since the 1980s, the federal government's role in labor markets has been minimal.

The long history of U.S. labor market policies gives us at least a starting point for understanding what does and does not work. Wage subsidies such as those advocated by Phelps (1997) might induce some private sector employers to hire workers with low educational attainment and provide on-the-job training. However, there is the danger that employers will simply replace existing workers with subsidized workers or that the subsidies will interfere with price signals. Another policy action worth considering is government provision of (or subsidization of) health care and child care benefits, which would make employment more attractive to those who remain out of the labor force due to family commitments or to obtain Medicaid.

Such policies may be helpful, but we favor a more comprehensive approach. Hyman Minsky argued that an infinitely elastic demand for labor at a fixed wage would guarantee a real job opportunity for anyone who wants to work

(Minsky 1986). Along similar lines, we propose a job opportunity program that would "hire off the bottom," taking all those who are ready, willing, and able to work but who cannot find employers willing to hire them. The federal government would announce that it would provide the financing to pay the legislated minimum wage, plus health care and child care benefits, to anyone ready, willing, and able to work. Government agencies at all levels (federal, state, local) and designated not-for-profit organizations could hire as many new employees as desired, with direct labor costs, including health and child care benefits, paid by the federal government. Administration and supervision would thus be decentralized, with participating employers setting reasonable performance standards that would have to be met by program employees. The federal government would require that all these jobs have a significant training component in order to prepare participants for eventual private sector (or public sector) employment. In addition, detailed work records would be kept so that prospective nonprogram employers could recruit from among program participants. The goal would be to create a pool of employable, "buffer stock" labor from which employers could draw as an alternative to recruiting from colleges.

This program would "hire off the bottom"; it would provide job opportunities to all who want to work. It would guarantee full employment, or zero unemployment, in the sense that anyone could choose to work in the program at the minimum wage. Clearly, many would choose to remain unemployed or out of the labor force rather than work at the minimum wage; it is doubtful that many unemployed college graduates would choose to work in the program. However, the program is not designed to solve the unemployment problems of the unemployed highly skilled workers, but is focused on those who cannot obtain private sector work.[6]

Past U.S. experience with conceptually similar policies tells us that such a program would prove effective. Indeed, in an evaluation of public service employment policies, Gottschalk concludes that "the U.S. experiments with PSE indicate that minimum-wage jobs would be demanded if offered" (1998, 93). One such PSE program was the Youth Incentive Entitlement Pilot Project (YIEPP), which operated from 1978 and 1981 and offered wage subsidies to private sector employers for providing a part-time minimum wage job or full-time summer job to anyone 16 to 19 years old who stayed in school. The program proved successful at, among other things, improving earnings for teens and reducing unemployment differences

between blacks and whites. YIEPP is also instructive in that it showed the limitations of private sector wage subsidies. Only 18 percent of eligible employers chose to participate in the program despite a 100 percent wage subsidy for all workers.

Our "hire off the bottom" policy proposal is much more ambitious than YIEPP. It can achieve a degree of employment that cannot be attained by expansion alone; the problem with traditional "Keynesian" stimulus programs is that they might set off inflation long before job opportunities for those with low educational attainment increase. By hiring off the bottom and by fixing the wage in the job opportunity program at the minimum wage, inflation pressures are minimized. Indeed, we believe the buffer stock of labor will lead to greater price stability than can be achieved under the current system, which relies on unemployment to reduce inflation pressures. For several reasons, discussed in Wray (1997), workers employed in the program would constitute a better pool of potential employees than the current unemployed population. An obvious reason is that someone working in the program is demonstrating that she or he is "ready, willing, and able" to work to a degree that most of the unemployed cannot.

As we have shown, most of the jobs created over the Clinton expansion were filled by those with at least some college education. Only a small number of the new jobs were filled by reducing the ranks of the college-educated unemployed (the number of college graduates who were unemployed fell by only 287,000 and the number of those with some college who were unemployed fell by about 500,000). Even the Clinton expansion was not sufficiently robust to cause employers to reach into the ranks of those who have not attended college. Thus, in some sense, the true price-stabilizing pool of reserve labor under the current system consists of the unemployed who have at least some college. Since this pool is far smaller than what is required to fill positions created by expansion, most new positions must be filled by new entrants with some college. In effect, the current system relies on a small cushion of perhaps three-quarters of a million unemployed with at least some college to help stabilize prices, together with whatever factors determine the flow of college-educated workers into the labor force.

As employers have demonstrated over the past expansion, most new jobs will not, and perhaps cannot, be filled by recruiting from among those

who have not attended college—whether they are classified as unemployed or out of the labor force. Policy is required to increase the experience and training of the group that does not attend college so that when private sector demand is high enough, there is an alternative to bidding up the wages of college-educated workers. The job opportunity program can offer full employment and greater price stability as complements in contrast to the conventional view of a trade-off between unemployment and inflation.

Certainly, this is only one of many possible active labor market programs that might be used to raise the employment rate of those who do not attend college. It could be supplemented with an enlarged apprenticeship program, either as a component of the job opportunity program or as a separate program. Additional funding could be provided for vocational training, through subsidies to private suppliers of such programs or through loans or other assistance to training program participants. Of course, our analysis reinforces the conclusion reached by a number of researchers that young people should stay in school. Thus, increased funding of "stay in school" programs is appropriate.

Our analysis has questioned the degree to which labor markets really are tight, at least for the half of the population that has not attended college. We have also challenged the notion that a rising tide alone can significantly increase job opportunities for this group. We argue, as the old Institutionalists did, that it is time to implement a variety of active labor market policies, with a job opportunity program as its centerpiece. These policies can create conditions for full employment and price stability simultaneously.

Notes

1. Note that here and below we focus on the 25 and over population (unless otherwise indicated). This allows us to remove most individuals who would still be in high school or who might have completed high school and have not yet attended college, but who might plan to attend college. Thus, if the 25 and over population of high school dropouts declines, for example, this is primarily due to deaths rather than to an increase in the number graduating high school or attending college.
2. The category high school dropout includes people of all age groups. Being that a substantial portion of these are in the over 65 group, we can assume that most of the population decline can be attributed to deaths.

3. We removed the 65 and over population by assuming that the fraction of seniors in the 25 and over population was unchanged from 1997, the latest year for which data were readily available for the 25 to 64 population set. This can be justified because it is unlikely that population figures and the composition of population figures changed dramatically over the course of the past seven months.
4. Bell South Telecommunications recently said that it has taken more than 6 months to fill 500 newly created jobs in Florida. Even more surprisingly, it went through 10,000 applicants before getting the people it wanted ("Jobs Going Begging" 1998).
5. For example, the workers employed in government make-work programs were counted as unemployed during the 1930s (Marshall, Briggs, and King 1984, 624). This clearly reflects the then dominant view that the crisis was only temporary and only temporary relief efforts were needed until "equilibrium" was restored.
6. We do not have space here to discuss the program in detail; the specifics are analyzed in Wray (1998 and forthcoming).

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