

The Impact of Changes in Public Employment
on Low Wage Labor Markets

Peter Gottschalk
Boston College

Introduction

With the public sector employing roughly fifteen percent of the workforce this sector has the potential for having a substantial impact on the labor markets for less skilled workers. Government is simply too big an actor in the labor markets to be ignored. More modest in size are the highly targeted public service employment (PSE) programs, such those in the Comprehensive Employment and Training Act, that have been used to deal directly with labor market problems of specific groups, (such as welfare recipients and unemployed youth).

While PSE jobs have almost disappeared they were a major tool of the New Deal legislation and played a prominent role in the legislation of the mid-1970's¹. In 1934 the Civil Works Administration employed over four million workers. At its peak in 1938 the Works Progress Administration (WPA) enrolled more than three million workers. Forty years later the peak enrollment in PSE jobs under the Comprehensive Employment Training Act (CETA) was just under one million, with an additional million summer jobs for youth.²

¹The only major program to survive into the 1990's is the Summer Youth Employment and Training Program which served .326 million recipients.

²See Kesselman (1978) Table 1 for enrollment and expenditures under works programs during the Roosevelt Administration. Since CETA was composed of many different programs with a varying mix of training and employment the number of PSE jobs will differ with the programs included. Vee Burke (1982) shows .596 million enrollees under Titles II-D and VI of CETA, which cover the major counter cyclical programs and programs targeted at disadvantaged workers. An additional .398 million jobs for youth are included under Youth Employment Demonstration Programs. While the Summer Youth Employment Program enrolled another 1.009 million youth, the expenditures on this program was roughly ten percent of the expenditure on the other programs. Nathan, Cook and Rawlins (1980) report .75 million PSE jobs under the CETA.

While the political mood in the mid-1990's makes it highly unlikely that the US will enact PSE programs in the near future, much less programs of this size, the welfare debate has reopened the question of whether government should offer a job of last resort to people who cannot find work in the private sector.

What are the difficulties in providing such jobs? On what basis should they be evaluated? In this essay I review the experience in the US and other OECD countries with PSE strategies. A recurring theme is that one's view about the effectiveness of PSE depends largely on the evaluation criterion used.

Before turning to the evaluation literature on US programs I place PSE in a broader context by first contrasting the size of PSE programs with overall employment in the public sector and then contrasting PSE programs in the US with programs in other OECD countries.

Employment in the Public Sector

While traditional, tightly focused public service employment programs for less advantaged workers will receive disproportionate attention in this chapter, it is important to remember that even small changes in overall government hiring may have a larger impact on low wage labor markets than even historically large changes in PSE. Together, federal, state and local governments employ 11.7 percent of all high school dropouts and 12.6 percent of high school graduates. To put the size of the public sector into perspective, roughly the same proportion of workers with low education (a high school education or less) were employed in all non-durable manufacturing industries in 1990 as in the public sector. Put another way, as many less educated workers would lose their jobs from a ten percent reduction in government employment than from the total elimination of the textile industry.³

Changes in demand for less skilled workers by the public sector can, therefore, have a substantial impact on these labor markets. In this section I explore the possible impact of a reduction in the total employment at all levels of government and a decentralization to lower levels of government.

Changes in the Size and Level of Government

³Based on the 1990 Current Population Survey Outgoing Rotation Group (ORG) files.

The move towards smaller and more decentralized government is being pushed by powerful political forces. These shifts in the size and level of government are likely to have unintended distributional consequences⁴. If the public sector and each level of government (federal, state and local) hired workers of different skill levels in the same proportions and if all sectors paid identical wages for similar workers, then shifts between the public and private sector or between different levels of government would have no distributional impact. On the other hand, if the private sector hires relatively more low skilled workers (it is less skill intensive relative to the public sector), then reducing the size of government and increasing the private sector will lead to a increase in the demand for low skilled workers. Likewise, decentralization of government will decrease the wages of less skilled workers if the federal government pays higher wages than state or local governments.

Differences in Skill Intensity by Sector

Figure 1 presents skill intensities by sector. Each bar represents the number of high school dropouts and high school graduates within that sector as a proportion of all persons employed in the sector.⁵ These skill intensities, displayed separately for males and females, are shown for 1980 and 1990.

The private sector uses a higher proportion of both high school dropouts and high school graduates than each of the three levels of government. This holds for males as well as females. The lower skill intensity of the private sector implies that shifts in employment from the public to the private sector will raise the demand for less educated workers, which should put upward pressure on their wages. This, of course, assumes across the board cuts in public employment matched by a corresponding increase in private employment. If the public employment cuts were disproportionately in areas that hired less skilled workers (for example, building maintenance) or the increase in private employment were in sectors that used relatively few low educated workers (for example, legal services) then the shift would lower the demand for less educated workers.

⁴Blank (1993) also explores the distributional impact of changes in the size of government.

⁵High school graduates exclude persons with any college.

Decentralizing government is not likely to have a large impact on the demand for less educated workers for two reasons. First, if the same services are provided but by different levels of government then this will not affect the type of workers demanded. If, however, cuts in employment at the federal level are used for unrestricted block grants then there may be a shift in the types of workers demanded. However, as Figure 1 indicates, the differences in skill intensity across government sectors are not large. The federal government hires a somewhat greater proportion of male high school dropouts than either state or local governments but a smaller proportion of female high school dropouts. While the federal government hires a greater proportion of both male and female high school graduates than state and local governments, the differences are small for females.

Differences in Wage Rates by Sector

Shifts in the size or level of government may also have a distributional impact if wages differed across sectors, even if all sectors used the same factor proportions. Put another way, economic rents may differ across sectors. Even if there were no changes in market forces, wage levels would change as the rents low skilled workers received changed as they moved across sectors. Since the federal government pays a premium (relative to both the private sector and state and local governments) for less skilled workers, reductions in the size of the federal government will lead to a reduction in the wages of low skilled workers.

Figure 2 shows the premia paid by federal, state and local governments (relative to the private sector) for male and female high school dropouts and high school graduates in 1979 and 1989.⁶ These data show that by 1989 the federal government was paying close to a ten percent premium for all but male high school graduates (who received a five percent premium.) Scaling down the size of the federal government and increasing the private sector is, therefore, likely to

⁶Figure 2 shows the coefficients on sector dummies from ln wage regressions using the 1980 and 1990 PUMS files. The equations include experience, experience squared, and dummy variables for black, white, part time, and married as covariates. Three digit occupation fixed effects are differenced out. Regressions were run separately for each sex and education group. To further ensure that differences across sectors do not reflect differences in occupations we also limited the sample to occupations open to less skilled workers that were used in all four sectors. These results show very similar patterns. Katz and Krueger (1991) and Poterba and Ruben (1994) also examine sectoral differences in wages.

result in a reduction in the rents paid to less educated workers who switch sectors.

Decentralizing from the federal to state and local governments is also likely to reduce wages for less educated workers as rents are eroded. Males could be expected to experience roughly a ten percent decline in wages while the decline for females could range from as little as 2- 3 percent (for high school graduates going from the federal to state government) to as much as 4 to 5 percent (for high school dropouts going from the federal to either state or local government)

In summary, the data presented in this section shows that the current push to downsize and decentralize government is likely to have distributional consequences. Fortunately, all the forces are not in the direction of further depressing the wages of less educated workers. While erosion of rents would put downward pressure on wages, the shift to the private sector is likely to put upward pressure on the wages of less educated workers (since they are used in greater proportion in the private than the public sector.)

Direct Job Creation

Before turning attention to America's limited experience with public service employment, I place these programs in an international context. Understanding what other countries have done provides some perspective on the size and scope of US programs. A few countries spend considerably more on PSE than the US. However, PSE is not a policy which has been widely used in any country during the 1980's and 1990's. Many other countries with much larger active labor market policies also spend little or nothing on PSE. Where the US stands out is not in the small size of its recent programs, but on its focus on less advantaged workers.

PSE in OECD Countries

Figure 3 shows expenditures on active labor market policies as a percent of GDP for a variety of OECD countries in 1990⁷. These programs include PSE, training, employer subsidies, programs for youth, vocational rehabilitation for disabled workers and the employment service. Since countries differ widely in the proportion of PSE provided to the disabled and other workers I show these

⁷These "active" labor market policies are in contrast to "passive" policies that offer income support to the unemployed.

separately. Countries are ranked according to expenditures on PSE (relative to GDP) in 1990.

Several patterns emerge. First, there is a clear geographic pattern. The northern European and Nordic countries were the largest users of PSE. Sweden devoted .8 percent of GDP to PSE, followed closely by Belgium (.7 percent) and the Netherlands (.7 percent). In terms of employment, PSE workers comprised 1.8 percent of the labor force in Belgium and 1.1 percent in Finland⁸. In Sweden PSE workers comprised up to 2.0 percent of the labor force during recessions⁹. To put this number in perspective, the US would have had to have over two million PSE jobs to reach the Swedish level.

Second, countries with substantial active labor market policies (as indicated by the total height of the bar) tend to have large PSE programs, though the relationship is far from perfect. Sweden has the largest total expenditures on active labor market policies, as well as the largest PSE expenditure. At the other extreme, countries like Canada, Australian and the UK have both small PSE and small total expenditures. However, there are many examples of disproportionately large PSE expenditures (Belgium, Netherlands and Luxembourg) and disproportionately small expenditures (France, the UK and New Zealand).

When one goes behind these numbers to examine descriptions of the programs it is striking to see the difference in objectives between the US and other OECD countries. In the US during the 980's, PSE was largely viewed as a tool to address labor market problems of less skilled workers.¹⁰ In most other OECD countries the stated objective is either to decrease unemployment or to replace unemployment and disability insurance by work. While PSE programs in the US were largely targeted at disadvantaged workers, programs in other OECD countries have been aimed almost exclusively on the unemployed and the disabled, regardless of income. The focus on the unemployed regardless of income may reflect the European tendency to offer social insurance rather than public assistance. The fact that PSE is viewed as social insurance rather than an alternative to public assistance has led many countries to pay market or union

⁸OECD (1990) Labour Market Policies Table 11.

⁹Bjorklund (1991).

¹⁰This is very different from programs used during the Great Depression when skilled, as well as less skilled, workers were hired in WPA jobs.

level wages to participants rather than the minimal wages paid in almost all recent US programs.

The programs in the Nordic countries and Ireland all provide temporary work to the long term unemployed. The program instituted in Norway in 1989 (Arbeid for Trygd, which translates as Work in Place of Welfare) provides funds to local authorities to hire young unemployed workers or older workers who have exhausted their 80 weeks of unemployment insurance¹¹. These workers can be hired for up to ten months in local public works or social service projects¹². Since 1987, Finland has offered PSE jobs paying market wages to persons unemployed one year or more (3 months for youth)¹³. Jobs are provided by the central or local governments. While Sweden focuses most of its PSE funds on disabled workers, it still has one of the largest PSE programs for the non-disabled. Sweden's Work Relief program (Beredskapsarbete) offers work in the public sector to persons who exhaust their 60 weeks of UI benefits. The short duration and strong pro cyclical fluctuations in Work Relief enrollment is consistent with its focus on income insurance for the cyclically unemployed.¹⁴ Similarly the Social Employment Scheme, instituted in Ireland in 1985, offers temporary employment to older long term unemployed workers¹⁵. What all these programs have in common is that they target the long term unemployed and offer only temporary work. It is worthwhile to note that none of these countries offers PSE as a "job of last resort" open to all takers. All these countries limit PSE to long term unemployed and many offer PSE only to a subset of these workers.

Spain provides one of the few examples of a PSE program that, while not targeted at low skilled workers *per se*, at least provides employment opportunities to persons who are not unemployed. The labor ministry contracts with local agencies or private enterprise to provide "works of public and social interest". As many as fifty percent of the contracted workers need not be formerly unemployed¹⁶. This expansion of PSE to low wage workers makes Spain unique in the European context.

¹¹Norway OECD (1993).

¹²OECD (1993).

¹³OECD (1992, Finland).

¹⁴ Bjorklund and Holmlund (1991, p136) and Edin and Holmlund(1991, p409).

¹⁵Reynolds and Healy (1990).

¹⁶OECD (1993, Spain).

The low 1990 level of expenditures on PSE in the US in Figure 3 reflects a sharp drop from the 1980's, though admittedly from a low base in the international context. Did other countries also scale back their programs? The right panel of Chart 1 shows expenditures for the six countries with falling expenditures while the left panel shows the patterns for the five countries with rising expenditures on PSE. The remaining ten countries experienced little change in PSE/GDP since the mid 1980's.

The decline in expenditures in Australia, New Zealand, the UK and the Netherlands reflects legislative changes which either greatly scaled back or eliminated PSE programs for the non-disabled in favor of increased training programs¹⁷. The rationale for these changes was the belief that training would be more effective than PSE in helping the unemployed make the transition to the private sector. Belgium is unique in moving in the opposite direction. While temporary PSE jobs were eliminated, these were replaced by subsidies to local governments that give standard contracts to the unemployed.¹⁸

Some countries did increase expenditures on PSE but in most countries this seems to reflect increases in the demand for existing programs rather than policy decisions to widen the scope of the programs. For Finland, Norway and Sweden these increases largely reflect increases in unemployment rates which greatly expanded the population eligible for PSE.

The expansion in PSE expenditures in Germany offers one of the few cases of increased expenditures which reflect programmatic expansion. Employment companies (Beschäftigungsgesellschaften) were introduced into the East as a result of the very high unemployment. These typically small companies (five to six employees) hired the long term unemployed and older or disabled workers at union or market wages to upgrade and renovate industrial sites¹⁹ These quasi-public companies hired fully 5.8 percent of the workforce in the former East Germany.²⁰

There are some signs of a revival of interest in PSE in Europe, driven by the same "work is better than welfare" sentiments found in the US. A striking

¹⁷OECD (1988) Employment Outlook.

¹⁸Worden and Vroman (1992), OECD Employment Outlook (1992) and OECD(1990) Labour Market Policies.

¹⁹OECD (1991/92), Zimmerman (1993), and Worden and Vroman (1992).

²⁰Zimmerman (1993, page 236) indicates 68,000 ABM workers in the West and 366,000 in the East. Table 6.7 shows 6.3 million persons gainfully employed in the East and 29.4 in the West.

example is the Youth Work Guarantee Plan in the Netherlands which replaces cash grants with the right to a temporary job for unemployed youth. By 1998 all youth up to 21 years old (and school leavers up to 27) will be covered under this fast growing program²¹. Likewise after a period of sharp retrenchment, the UK enacted the Employment Action program in 1991. This program, which offers employment in community service jobs to persons unemployed six months or longer, has benefits that are marginally higher than UI benefits²²

PSE in the US

The history of PSE in the US indicates a sharp shift during the mid 1970's from the European type of program focused on cyclical unemployment to PSE programs with a clear distributional focus. The job creation programs of the Roosevelt administration were viewed as temporary measures to address the broad based employment problems caused by the Great Depression²³. This broad focus on reducing unemployment or offering an alternative form of income insurance continued through the Public Employment Program (PEP) that provided .185 million jobs at its peak in 1972 and the early stages of the Comprehensive Employment and Training Act (CETA). By 1976 nearly 300,000 PSE CETA jobs had been created as a counter cyclical measure. These PSE jobs were established in state and local government agencies or nonprofit organizations in locations where there was substantial unemployment. The work itself ranged from child care to police and fire protection, and was intended to provide transitional employment for unemployed, under employed and low-income persons.

This first round of CETA jobs were targeted neither to groups with flat labor supply functions (to minimize inflationary pressure) nor to groups with the greatest need for income. Seventy-five percent of the early CETA slots were filled by high school graduates, and less than half of the jobs were filled by people from low income households. Much of this was a result of the autonomy given local governments in administering programs. Many CETA programs "creamed" the more highly skilled workers--enrollees with previous job experience were hired because they were more productive, even if they

²¹OECD (1993, Netherlands).

²²OECD (1993, The Public Employment Service...)

²³The founding of the WPA in 1935 predates the introduction of unemployment insurance in 1938. Cook et al (1985).

benefited less from the program. In reaction, the 1976 amendments to CETA required that disadvantaged workers be given priority in public service employment.

The shift to more disadvantaged workers was accompanied by a rapid decline in the number of CETA slots even before President Reagan, who adamantly opposed direct job creation efforts, entered the White House. Large scale PSE programs came to an end in 1982 when The Job Training Partnership Act (JTPA) replaced CETA. The only programs to survive the transition were some small programs for the Summer Youth and Employment Program which is much less expensive since it covers employment for only six weeks.

During the early 1980's government abandoned PSE and focused its limited labor market resources on training programs. The welfare debates of the mid 1990's, however, rekindled interest in a limited type of PSE. Public sentiment swung strongly away from cash transfers. The public rhetoric strongly supported a jobs strategy to raise the incomes of poor mothers. Some arguments in favor of this shift to jobs were based on the assumption that being employed would improve the life chances of welfare recipients. Policy makers argued that work would provide skills that would make recipients more attractive applicants to future employers. This human capital or screening rationale for getting welfare recipients to work was accompanied by a quite different type of argument based on taxpayer preferences. According to this normative view, welfare recipients should have to work for their incomes, just like the vast majority of taxpayers. While economists could rightly point out that following a jobs strategy was often more expensive than providing transfers directly, this did not dissuade those who stressed taxpayers' preferences for the way in which income was redistributed.

The notion that work should replace welfare and that transfer benefits should be of limited duration led policy makers back to PSE under a different guise. If welfare recipients were required to work, where would they find the jobs? Interestingly the first answer was public service jobs, though no one used the term. The initial battles were fought over "workfare" in which some welfare recipients were required to work in a public sector job in return for a welfare check. Workfare was not traditional PSE but it raised all the same issues. Would the jobs performed by welfare recipients displace other jobs? Would there be any long term benefits to workfare participants?

The second stage in the welfare debate, which focused on time limitations on benefits, further rekindled interest in PSE. If welfare benefits were available only for a fixed period, recipients would have to find jobs. But there was ample reason to believe that those welfare recipients with the least skills would be those most likely to face the time limitation, and they were unlikely to find jobs in an economy that was having increasing difficulty in generating jobs for low skilled workers. This dilemma led naturally back to PSE as a job of last resort for welfare recipients²⁴.

Evaluations of PSE

As we have seen PSE has been advocated for two very different reasons. The aim of European programs and many of the early US efforts, including the WPA projects, was to reduce the aggregate unemployment rate and/or to provide an alternative form of income to the unemployed. Little distinction was made between advantaged and disadvantaged workers. Less skilled workers would benefit along with more advantaged workers through a "trickle-down effect" as less skilled workers had fewer competitors for private sector jobs. The second phase of PSE in the US was to redirect attention from increasing the aggregate number of jobs to putting specific groups to work. Since these two goals suggest very different evaluation criteria we consider them each in turn.

Increasing Aggregate Employment.

Hiring a PSE worker obviously increases employment, just as hiring any other worker either in the public or private sector. However, if this expansion of PSE employment results in offsetting reductions in employment in other sectors then PSE does not meet the goal of increasing aggregate employment. At least four different mechanisms tend to reduce the initial impact of PSE. All of these mechanisms fall under the broad rubric of "displacement."

The first method of displacement is well known. When any government employment program is undertaken, the cost of the program must be financed either through taxation or through the sale of bonds. Taxation tends to reduce aggregate demand while deficit financing crowds out private investment. This form of displacement is, however, generic to all public expenditures. If PSE is

²⁴ President Clinton's initial welfare reform proposal included a PSE component.

rejected on these grounds then subsidies to employers, training programs and all other policies with a budgetary cost must be rejected as well.

The second method of displacement focuses on the potential reductions in employment by agencies that receive the PSE workers. Direct job creation in the US and other OECD countries has largely taken the form of grants to state and local governments to hire public workers. If these new jobs, financed at the central level, partially replace jobs which would have been financed at the state and local level, then job creation programs will have a reduced effect.²⁵ This source of displacement, known as "fiscal substitution," will tend to grow over time as local governments have time to make adjustments in their normal hiring. A natural way of reducing the effects of fiscal substitution is for the federal government to provide funds only for projects that local governments would not otherwise undertake. However, determining what a government would have done in the absence of a program is not an easy task.

The next two forms of displacement occur through price adjustments. Direct job creation raises the demand for specified types of workers which raises their wages (unless supply is perfectly elastic). The wage increase leads private employers to substitute away from the preferred groups, thus partially offsetting the increased employment in the public sector. The final form of displacement takes place through the product market. If newly employed workers produce goods which are sold in the market then they compete with other goods. Unless there is an increase in aggregate demand, the net result will be increased production in the public sector and decreased production in the non-subsidized sector. This form of displacement is, however, also present when private firms are induced to hire disadvantaged workers through tax and other incentives.

One way of avoiding this type of displacement is to provide public goods which are not produced in the market, such as clean parks or improved infrastructure. It should, however, be recognized that one of the possible reasons PSE jobs are sometimes associated with "make work projects" is that the jobs created cannot directly compete with the private sector, both for political reasons and legitimate attempts to reduce displacement. The fact that PSE

²⁵Note that the first form of displacement (effects of financing PSE) is reduced as fiscal substitution grows. In the limit, if fiscal substitution is 100 percent there is no financing effect since local taxes (or borrowing) can be reduced by the same amount as federal taxes are raised.

workers sometimes produce goods with little or no market value may partially reflect this tension between job creation and the desire to reduce displacement.

Given these possible forms of displacement and the size of PSE programs in the US, one might not expect to see large employment impacts. While there is evidence that CETA increased employment in the short run when the economy was below full employment (Sawhney et al. 1982), there is wide agreement that "fiscal substitution" eroded part of these gains over time, though there is a substantial disagreement about the magnitude of the displacement. As state and local governments adjusted to the CETA financing of PSE positions, they reduced the number of workers they hired with their own funds. Early empirical studies indicated that after a period of one year the net impact of federally financed jobs programs under CETA were almost totally offset by reductions in state and local employment. Adams *et al.* (1983) dispute these early studies and suggest that fiscal substitution may have been as low as a \$.23 reduction in local spending for every dollar of federal funds for public service employment. All these estimates are based on crude non-experimental data dating back to the late 1970's. Without better data it is difficult to have much faith in these estimates.

If, however, one assumes that fiscal substitution was only 30 percent, then at its peak CETA lowered the unemployment rate by a about .5 percent. Placed in the context of today's labor market this would reduce the number of unemployed workers by about half a million which is not inconsequential. Higher levels of fiscal substitution would, however, lower this number.²⁶

Redistributing Jobs to the Less Advantaged

Before examining the empirical evidence on the effectiveness of PSE in redistributing earnings opportunities to less advantaged workers it is instructive to contrast several alternative evaluation criteria that have been applied to these programs.

Evaluation Criteria

First, consider the standard cost benefit criterion which weighs the efficiency loss against the distributional gains from instituting a PSE program.

²⁶Bassi and Ashenfelter (1986) find that funding levels were poorly coordinated with the unemployment rate, suggesting that political factors may have limited the impact of PSE programs on net employment.

As Okun (1975) proposed in his "leaky bucket" analogy, society may be willing to accept some output loss in order to meet an equity objective. The question is not whether there are efficiency losses, but whether the cost of these losses is smaller than the value society places on the distributional gains ²⁷.

The efficiency costs depend crucially on the labor supply response to PSE. Suppose that disadvantaged workers are willing to work in PSE jobs at the same wage as is being paid in the private sector (i.e. labor supply is infinitely elastic at the market wage). In this case wage rates in the private sector would not be affected by the introduction of PSE jobs. There would, therefore, be no efficiency loss due to private firms altering their behavior in response to changes in wages (i.e. there would be no price distortion)²⁸. As long as society places value on reducing the unemployment rates of less skilled workers, PSE would pass a cost benefit test.

Unfortunately, this advantage of PSE is also its limitation. If low skilled workers are willing to work in PSE jobs at the same wage as similar workers are paid in the private sector, then PSE would reduce unemployment rates of less skilled workers but it would have no effect on the distribution of wages since private sector wages would not be affected by the creation of PSE jobs. It would not be an effective strategy to offset the decline in private sector wages for less skilled workers.

Now consider the case where PSE workers have to be paid a higher wage to induce them to enter the labor market (i.e. labor supply is not infinitely elastic)²⁹. In this case an increase in demand from the introduction of a PSE program will bid up the wages of less skilled workers in the private sector, as firms have to compete with the government sector in order to attract workers. If PSE is being used to offset the shift in the distribution of wages caused by the

²⁷A subsidiary question is whether PSE offers the lowest cost method of attaining the equity objective. The standard economist's argument that cash transfers offer the least cost way of attaining distributional objectives ignores that donors may have preferences for non-cash transfer strategies, such as PSE.

²⁸The other potential inefficiency is if the value of the output produced by the PSE workers was less than the value of leisure, home production or other production while unemployed.

²⁹Note that if the higher wage reflects only a compensating differential that has to be paid to induce a person to for work in the public sector then private employers will not have to pay that premium and PSE will again have no efficiency effect

decline in the private demand that occurred during the 1980's then this bidding up of wages by PSE is an intended benefit with implied equity gains.

Whether these wage changes are distorting depends on the social value of the product produced by PSE workers.³⁰ If these workers produce public goods (such as cleaner parks) that have social value that equal or exceed the cost of providing these jobs then the wage changes are not distortionary. The fact that PSE jobs bid up the wages of private sector worker is no different than if a private employer bid up the market wage of less skilled workers. Thus, the crucial issue is the value of goods produced by PSE workers.

These efficiency effects of PSE are summarized in Table 1. V_{PSE} is the social value of the output produced by PSE workers, V_{unem} is the value of the output the person would have produced while unemployed and C_{PSE} is the cost of providing a PSE job. If labor supply is perfectly elastic then PSE does not lead to efficiency losses.³¹ If labor supply is not perfectly elastic PSE does not cause distortionary changes in wages as long as the value of the output produced by PSE workers exceeds the cost of providing the jobs. Where there are efficiency costs, these must be weighed against the value society places on the distributional gains.

Table 1
Efficiency Effect of PSE Employment

Labor Supply	Value of PSE Output (V_{PSE})	
	$V_{unem} < V_{PSE} < C_{PSE}$	$C_{PSE} < V_{PSE}$
Perfectly Elastic	Non-distortionary	Non-distortionary
Not Perfectly Elastic	Distortionary	Non-distortionary

³⁰ The only reason one does not need to go through this exercise if the increase in demand comes from the private sector, rather than the public, sector is that (under appropriate conditions) the value of the output in the private sector is the price determined in competitive markets. Firms will bid up the price of less skilled workers only if the value of the product they produce in that firm exceeds the value produced in other firms. Note that subsidies to employers also create price distortions by driving a wedge between the cost and value to the firm of hiring another subsidized worker.

³¹ The exception is if the value of the output a person would produce while unemployed (e.g. home production) is less than the value of the output produced on the PSE job.

The foregoing is a straightforward application of well developed economic principles. What is striking about these evaluation criteria is that they do not depend on whether PSE raises future wages of participants, the focus of most evaluations of PSE. Put alternatively PSE may be a socially desirable mechanism for lowering the unemployment rates or raising the current wages of less skilled workers not working in PSE jobs, whether or not this employment raises the *future* wages of those less skilled workers in the PSE jobs.

The emphasis on raising future wages of PSE participants through human capital accumulation implies a very different evaluation criterion. In the 1960's and 1970's PSE was offered as an alternative or supplement to training.³² It was argued that these human capital strategies could potentially provide skills that would raise the future earnings of current participants. PSE enrollees might learn everything from simple rules of the workplace to specific skills that might carry over into the private sector. Under this view PSE would be a successful human capital strategy if future earnings exceeded the costs of the program.

It should be noted that this evaluation criterion is not standardly applied to employment in the private sector. In the debates about the effectiveness of welfare reform or other policies that try to place low skilled workers into private sector jobs, a private placement is considered a success whether or not that job has any impact on the persons future wage. Thus, requiring that PSE jobs do more than provide employment is placing an additional onus on these jobs.

So far we have considered the efficiency costs of PSE but in the political arena the budgetary costs may be paramount. One might think that PSE would always have a higher budgetary cost than employer subsidies (because the government must pay the full cost of PSE workers but only the subsidy for private sector workers). This is, however, not necessarily the case. As the paper by Katz in this volume shows, the budgetary cost per net job created is raised by the economic rents gained by firms that would have created the jobs even without the subsidy. When these additional budgetary costs are taken into account it is no longer clear that PSE jobs are not the cheaper strategy.

While the US has had less experience with large scale PSE projects than some OECD countries, the US has undertaken many more demonstration and

³²This link was enshrined in the titles of programs such as the Comprehensive *Employment and Training Act*.

experimental projects. I now turn to a review of the findings from the most important of these programs.

Youth Incentive Entitlement Pilot Project

Between 1978 and 1981 the US experimented for the first time with what comes as close as possible to a guaranteed job. The Youth Incentive Entitlement Pilot Project (YIEPP) guaranteed a part-time minimum wage job and a full time summer job to any person 16 to 19 who stayed in school.³³ While most jobs were in the public or non-profit sector nearly a quarter of the jobs were in the private sector where wages were fully subsidized. Even with a 100 percent subsidy only 18 percent of the eligible employers chose to participate.³⁴ This indicates just how difficult it is to induce the private sector to offer jobs to disadvantaged youth.

This saturation program which served roughly 70,000 youth was instituted in seventeen cities. Four of these were chosen as evaluation sites. Outcomes were compared in these cities and in four "comparable" cities that acted as controls. While the control cities did not have a YIEPP saturation project they were receiving other services under the Youth Employment and Training Programs. Therefore, the results of the evaluations show the contrast with alternative programs not the contrast with no services.

Evaluation of the program was hampered by the difficulty of controlling for differences between the experimental and control sites and by the premature termination of the experiment. Without being able to follow youth over a substantial period it is impossible to determine whether this program had any long-term effect on post-program earnings.

The results on current earnings are, however, encouraging. Earnings during the school year were estimated to be 46 to 161 percent higher in the experimental than in the control cities. For summer jobs, earnings were estimated to be 48 to 65 percent higher³⁵. The fact that earnings increased indicates that displacement was not high. Furthermore, blacks gained

³³See Gueron (1984) for a description of YIEPP which was part of a larger set of programs focused on youth. See Betsey, Hollister and Papageorgiou (1985) for a summary of these projects grouped under the Youth Employment and Demonstration Projects Act (YEDPA).

³⁴Gueron (1982).

³⁵Haveman and Hollister (1991).

disproportionately from the guaranteed availability of a job. As a result the unemployment differentials between black and white youth were largely eliminated during the existence of the program. Clearly more young people, especially blacks, were willing to work at minimum wage jobs than were being hired in the absence of the program. If the objective of PSE is to redistribute employment in favor of specific groups then this program would have to be judged a success.

CETA.

CETA did not use random assignment to evaluate the effectiveness of its PSE component³⁶. Without a random control group, evaluations were based on the Continuous Longitudinal Manpower Survey (CLMS) data which includes Social Security earnings records for a sample of CETA participants and for a random sample drawn from the CPS who act as a control group. Bassi and Ashenfelter (1986) review much of the work based on this data and conclude that some consistent patterns emerge from these disparate studies. Men's earnings and hours in the post-program period were not substantially different from the labor market experiences of men who did not participate in the program. On the other hand, women did benefit from employment programs, mostly because they increased the number of hours they worked in the post-program period.

Furthermore, the PSE component of CETA was one of the more successful strategies for raising earnings.³⁷ Barnow (1987) reviews both the conclusions and the methodologies of four CETA evaluations based on the CLMS data. These studies show positive impacts for women and generally little impact on men. On-the-job training and PSE were more effective than either classroom training or work experience.

Barnow's more general conclusion, however, is that these studies showed considerably different results for sub populations. He concludes that "there is simply not enough evidence to argue that one study's methods are clearly superior to another's" (p.188) and that the only solution to many of the methodological issues is an evaluation based on an experimental design.

³⁶Titles II and VI of the CETA legislation provided PSE jobs.

³⁷Bassi (1983) focuses specifically on the costs and benefits of the PSE component of CETA and concludes that while this program increased post-program earnings by \$661, the benefits of the program were less than the cost unless one placed intrinsic value on helping disadvantaged workers.

Recent studies of job training have shown that a more detailed analysis of non-experimental data can greatly narrow the range of estimates and bring them closer to the experimental results.³⁸ The non-experimental evaluation studies of PSE have, however, not yet been updated.

Supported Work

The mid-1970s interest in more targeted employment and training programs was reflected in the establishment of an ambitious four year demonstration project in 1975 aimed at increasing the employability of some of the most disadvantaged workers in the US. Over 10,000 long-term welfare mothers, ex-offenders, ex-drug addicts, and teen-aged high school drop-outs were enrolled in the five year National Supported Work Demonstration program. Participants were guaranteed work for one year. The objective of this program was to give the participants actual work experience and to accustom them to the workplace environment and expectations-- the aim was to increase employability, rather than to teach specific skills. Jobs included such tasks as painting fire hydrants, recapping tires, building furniture and working in day care centers. The program gradually increased the requirements with respect to attendance, punctuality, and other worker qualities valued in the market.

Supported Work applicants were randomly assigned to experimental and control groups. Data was collected through interviews with both the controls and the participants prior to participation and in up to four additional interviews at nine month intervals. Hollister *et al.* (1984) conclude that the intensive intervention provided under Supported Work significantly increased the employment and earnings of all four target groups during their participation in the program. In the post-program period, only the AFDC target group experienced earnings gains. These gains included a 5 to 10 percent increase in employment rates and \$50 to \$80 increases in monthly earnings.³⁹

Considerable effort has gone into calculating overall cost/benefit ratios for Supported Work. The cost of the program was high--\$10,000 per service year, about the same cost as the Job Corps but more expensive than public service jobs under CETA. Comparing social costs and benefits (excluding stipends, since they were a transfer payment from taxpayers to participants) the program

³⁸Burtless (1995) and Heckman and Smith (1995) discuss the relative merits of experimental versus non-experimental evaluations.

³⁹Fraker and Maynard (1987).

was cost-effective for welfare mothers and ex-addicts. The net benefit of over \$8,000 for welfare mothers was largely a consequence of increased post-program earnings, and the large net benefits for ex-addicts was primarily a result of reduced criminal activities⁴⁰. The evaluation for the two other groups, however, showed less promising results. Youth had negative net benefits, and the results for ex-offenders were inconclusive.

EOPP.

The Employment Opportunity Pilot Program (EOPP) was a demonstration project authorized by Congress in 1978 to determine whether a voluntary "guaranteed jobs" program could increase employment and reduce welfare participation. The EOPP demonstration began primarily as a test of the guaranteed jobs concept, but was modified to test new job search strategies and then was terminated prematurely as a result of the Reagan administration's strong opposition to any program with a PSE component.

Although EOPP's value as a social experiment was limited by the changing objectives of the demonstration and its premature end, it does offer some general conclusions about the effectiveness of employment programs in encouraging increased work force participation. Burtless and Haveman (1984) conclude that EOPP probably raised the employment rates of welfare mothers (the largest group served) by 10 to 12 points. They also point out that of the total 120,000 potential enrollees eligible for a full range of EOPP services, fewer than 3 percent actually obtained PSE jobs.

Job Corps.

The Job Corps, one of the few youth programs still in existence, is a combination of PSE and training program. It is expensive, costing more than \$10,000 per trainee, and serves a limited number of the most severely disadvantaged youth between the ages of 16 and 21 in either residential centers or neighborhood programs. Cain (1968) and Mallar et al. (1980) conducted major evaluations of the Job Corps program. Both found significant employment and earnings gains for up to four years after leaving the program for all but young women with children. Weeks worked and earnings were raised by three weeks and \$655 per year respectively. Program participation was also favorably

⁴⁰See Burtless and Haveman (1984).

associated with reductions in welfare participation, unemployment insurance usage, criminal activity and out-of-wedlock births, and increases in acceptance into the military and participation in further education and training.

Although the Job Corps is as expensive as Supported Work, it appears to have a positive cost/benefit ratio overall (\$1.45 for every dollar of benefits) and be nearly cost-effective (\$.96 for each dollar spent) in terms of government expenditures alone.⁴¹ These benefits include in-program output, increased tax payments on post-program income, reduced transfer payments, reduced criminal activity, and reduced use of other federally provided services.

Community Work Experience Programs

While the US abandoned PSE as an antipoverty strategy in the early 1980's, the concept of providing work in the public sector re-emerged as a welfare strategy. Just as CETA was being phased out, Congress passed the Community Work Experience Program (CWEP) in 1982 which allowed states for the first time to require welfare recipients to work. This legislation was viewed by many as punitive "workfare" and was not at first viewed as a form of PSE. However, as the welfare debate moved from "workfare" in the early 1980's to time limitations in the 1990's, programs evolved in several states to look more and more like standard PSE programs which offered a guaranteed job to one segment of the disadvantaged population. In fact, Clinton's initial welfare reform proposal included an explicit PSE program for welfare recipients who could not find private sector employment after their two years of welfare eligibility had expired.

Initially CWEP offered a minimum wage job for the number of hours it would take a recipient to "work off" their welfare grant.⁴² This was interpreted as unpaid work experience but it could equally well have been interpreted as offering a minimum wage job for a fixed number of hours. In both cases, work had to be found for the enrollees and one had to worry about all the same displacement issues.

Evaluations of CWEP programs were undertaken in several states. These programs offered services and jobs that were primarily entry level clerical and maintenance work. The program in West Virginia came closest to the PSE

⁴¹Mallar et al. (1980).

⁴²Brock, Butler and Long (1993).

model by offering a job of unlimited duration to a sample of AFDC recipients and to all AFDC-U recipients. West Virginia was the only state to rely solely on a jobs strategy and to use a saturation strategy (it offered jobs to all eligible AFDC-U cases in selected sites.) Other states mixed work experience with job search and other services and offered a limited number of jobs. Random assignment to experimental and control groups was used in all but the AFDC-U saturation sites in West Virginia⁴³.

Participants agreed that requiring work for welfare was fair. However, the evaluation studies give little evidence that CWEP increased post-program wages or hours. Experimentals and controls in the West Virginia program had very similar post program outcomes. The fact that similar patterns were found for experimentals in other states indicates that even adding services to work does not lead to improved post-program outcomes.

New Hope

As a postscript it should be noted that a new PSE project is underway in Milwaukee, Wisconsin. The New Hope project will guarantee that anyone working at least 30 hours per week will have an income above the poverty line. The project will offer a temporary community service job to anyone who cannot find work after eight weeks of search. This goes well beyond any of the previous PSE experiments that limited eligibility to welfare participants, youth or other specified disadvantaged groups. Applicants will be randomly assigned to experimental and control groups. Interestingly, the evaluation will focus primarily on differences between experimental and control groups during, rather than after, the three year project period.

In summary, the US experiments with PSE indicate that minimum wage jobs would be demanded if offered. Voluntary programs have consistently had little trouble in filling job slots. The experience with YIEPP is encouraging by showing that making an open ended commitment to providing jobs not only raises earnings but also largely eliminates the difference between the unemployment rates of blacks and whites. PSE, however, has only had limited success as a human capital strategy. Post-program earnings were raised in

⁴³These sites were compared to sites that limited participation to 40 percent of the AFDC-U caseload. Since the program was mandatory, differences between the control and saturation sites give a measure of the ability of localities to provide work, not the willingness of participants to take the offered jobs.

some but not all experiments and where PSE did increase earnings the increases were in the \$500 to \$1000 range.

Evaluation of PSE Programs in Other OECD Countries

The evaluation literature on PSE in other OECD countries is paltry in comparison to the literature on the much smaller programs in the US. Policy makers in Europe seem generally less interested in evaluation studies of *any* social program. Evaluations of PSE may simply follow this more general pattern. This may reflect differences in social outlook or differences in the infrastructure necessary to undertake large scale evaluations. Americans' skepticism about the value of social programs may increase the demand for studies that can potentially show their ineffectiveness. On the other hand the availability of researchers specializing in program evaluation both at the Manpower Demonstration Research Corporation (MDRC) and in academic institutions may make it easier to evaluate programs in the US than in other OECD countries.

Differences in goals of PSE may also explain part of the difference in the prevalence of evaluation studies. The US focus on raising post-program outcomes leads immediately to questions about whether the program changed future hours, wages or welfare participation. On the other hand PSE programs in other OECD countries are almost always viewed as an alternative form of support for persons who cannot find employment in the private sector. Viewed solely as social insurance, the programs are successes as long as they reach those for whom they were intended and do not cause more displacement than the alternative income transfer strategies.

On the other hand PSE is also viewed in many countries as a method of lowering unemployment. Here the ability of the program to meet its goal is no longer as clear. As discussed earlier, PSE may displace other public or private sector workers. One would certainly have to question whether Belgium's subsidy to local governments to hire the long term unemployed is reducing the stock of unemployed or simply reshuffling the employed and the unemployed. Likewise, the sheer size of the employment program in East Germany has led to accusations that these quasi-public employment companies are displacing jobs in the private sector⁴⁴. Local entrepreneurs have successfully argued that they cannot compete with companies whose above-market wage rates are offset by

⁴⁴OECD (1991/92 Germany).

federal subsidies. As a result of these conflicts, the government agreed in 1991 to allow the local Chambers of Commerce to veto projects that could be carried out by local entrepreneurs. While the situations in Belgium and Germany raise questions about program effectiveness, these are speculations which might not be confirmed in any serious program evaluation.

It probably comes as no surprise that there are no randomized experiments of PSE outside the US. One would, however, expect substantial evaluation studies of the programs that employ more than one percent of the labor force in several countries. Swedish Work Relief Programs have received the most attention, but little can be concluded from these studies. Ackum (1991) finds that long time participants on Work Relief have lower wages. One, however, strongly suspects that this reflects the unobservable characteristics of some participants which both lower their wages and keep them on the program. Likewise, Bjorklund (1991) reports the results of a 1988 Ministry of Labour study which finds no impact of Work Relief. It, however, also does not seem to control for key variables. (Add discussion of Edin and Holmude, Ackum and Korpi)

Limited information is also available from duration models that use program participation as covariates. (I think-- waiting for studies) According to a summary of these studies, participation in a PSE job increased the probability of finding a private job in Finland and in Germany but not in the UK.⁴⁵ However, these studies again cannot sort out the impact of program participation *per se* from unobservables which may increase both program participation and employment in the private sector.

Conclusions

Policies that affect employment in the public sector can partially offset the impact of the decline in demand for less skilled workers that has been occurring at least since the early 1980's. With roughly 12 percent of workers with a high school education or less working for federal, state or local governments, this sector can have a substantial impact on labor markets for less educated workers. Since less educated workers make up a larger proportion of private employment than public employment, shifts in employment from the public to the private sector are likely to cause market pressures which would tend to raise wages for less skilled workers. These pressures would, however, be partially

⁴⁵ See OECD's Jobs Study.

offset by the elimination of rents received by less skilled workers in the federal government.

Direct job creation for low skilled individuals provides a more explicit link between public employment and labor markets for less-skilled workers. The US experience with public service employment has been limited compared to some other OECD countries. The focus of programs has also differed. Other OECD countries use PSE either to reduce unemployment or to provide an alternative form of social insurance. Since the late 1970's the US has focused its more limited programs on the least advantaged workers.

Whether or not these programs have been successful depends crucially on the goal. If PSE is offered as a way of reducing aggregate unemployment then its effectiveness depends largely on the amount by which lower levels of government shift existing tasks to PSE workers rather than expanding employment. The estimates we have of the size of this "fiscal substitution" are imprecise and based on old data, making it difficult to evaluate the argument for PSE based on its employment impact.

An alternative goal of PSE is to raise future earnings of participants. Here the evidence is also mixed. Welfare mothers benefited from work experience and a variety of services under Supported Work but not under CWEP. The post program earnings of youth were raised in Job Corps but high school drop outs in Supported Work showed no significant changes in future labor market outcomes. While this evidence has been used to argue that PSE is not effective it is important to recognize that private employment is not evaluated by this criterion. If a private employer offers a job to a less skilled person, this is considered a success, whether or not this job experience raises their future wages.

A third goal of PSE is to provide work opportunities for persons who cannot find work in the private sector. This is implicitly the goal of current efforts to put welfare mothers to work, even if this requires government jobs, a form of PSE. Large portions of the American public believe that work is good in its own right, even if it has little lasting impact on participants. The issue in this case is whether persons who do not find work in the private sector simply do not want work at the minimum wage. Here the evidence is clear. When minimum wage PSE jobs have been offered, the take up rates have been high. Probably the most impressive experiment is the Youth Incentive Entitlement Pilot Project. Employment rates were 41 percent in sites that offered a job to any youth still in

school. In the comparison sites the rate was 21 percent⁴⁶. Furthermore, the take up rates for blacks were sufficiently high to eliminate the gap between the black and white unemployment rates. The question, therefore, does not seem to be whether the jobs would be taken.⁴⁷

My overall conclusion based on the literature reviewed in this chapter is that PSE is a potentially important tool for dealing with the distributional issues addressed in this book. Participants in PSE programs have shown that they are willing to take even low wage jobs. On the donor side, taxpayers have voiced their preferences for dealing with distributional issues through jobs rather than transfers. We have already seen the result of this convergence in preferences in the welfare reform arena. The question is whether we are willing to expand PSE to the larger population. If we move in this direction it will be important to be clear about the goals we are trying to achieve with PSE. Claims that PSE will substantially lower aggregate unemployment rates may turn out to be valid but predictions about the employment impact depend crucially on estimates of the amount of fiscal substitution, which are currently measured very imprecisely. Claims that PSE will raise future wages are easier to substantiate but these human capital effects are limited to only some groups. If, on the other hand, PSE is evaluated on the same basis as a new job in the private sector, which only claims to provide employment, not future increases in wages, then the case for PSE is obviously much stronger.

⁴⁶Gueron (1984)

⁴⁷Gueron (1984, p21) estimates that the cost of implement a similar program nationwide which would guarantee a minimum wage job to every young person still in school to be \$1.6 to \$1.8 billion in 1980 dollars. This is roughly \$3 billion in 1995 prices.

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