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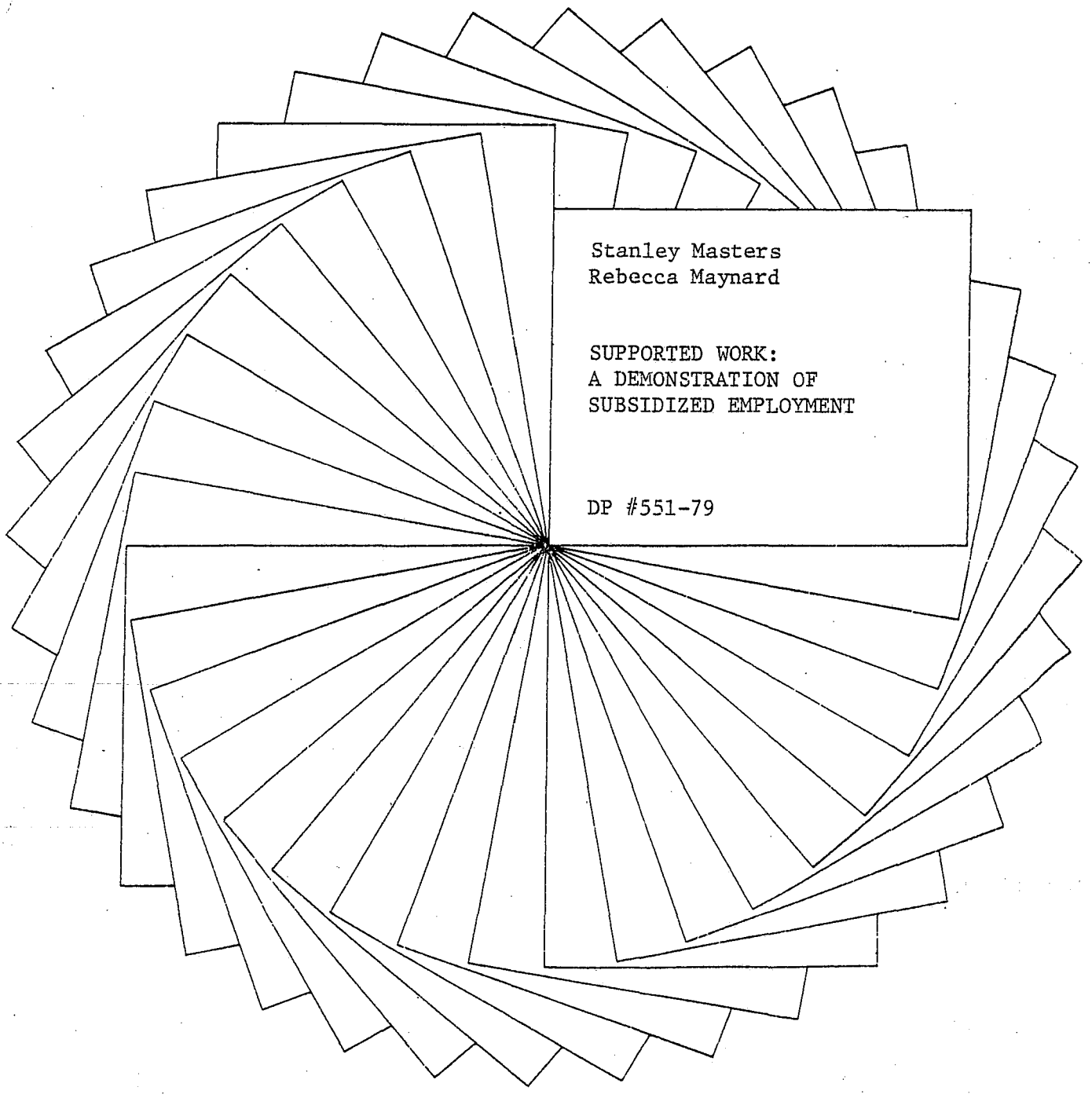

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SUPPORTED WORK:
A DEMONSTRATION OF
SUBSIDIZED EMPLOYMENT

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Supported Work: A Demonstration of Subsidized Employment

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ABSTRACT

The national Supported Work demonstration is a transitional public employment program for those with severe labor market disadvantages--long-term AFDC recipients, ex-addicts, ex-offenders, and young school dropouts. In this paper we discuss the program and the evaluation of it by researchers at Mathematica Policy Research and the Institute for Research on Poverty.

Preliminary results for the program's effect on employment and earnings, welfare income, drug use, and criminal activity are presented and discussed. Although these preliminary results do not include much post-program experience, there is evidence of a significant positive effect on the post-program employment of the AFDC sample, and a corresponding decrease in welfare payments. For ex-offenders, ex-addicts, and youth there do not appear to be any post-program earnings effects, but there is some evidence of program-induced reductions in crime by ex-addicts.

In the concluding sections, the results are qualified and compared to results for other programs aimed at similar target groups. Alternative policies such as subsidies to private employers for hiring disadvantaged workers and/or increasing aggregate demand in the economy are also considered.

Supported Work: A Demonstration of Subsidized Employment

Subsidized public employment programs have received considerable attention in recent years. The goals of such programs include reducing unemployment, increasing the earnings of the disadvantaged, and providing needed public services. This paper presents preliminary results from a large scale evaluation of one public employment program--the national Supported Work demonstration--and compares these findings with those of evaluations of other manpower programs designed to serve similar populations.[1] Since a central feature of Supported Work is its emphasis on those with severe labor market handicaps, results for Supported Work should be relevant in considering the administration's current effort to focus CETA more heavily on the disadvantaged, especially those who are "structurally" unemployed. The first section describes the Supported Work program. The various components of its evaluation are described in the second section. Some preliminary results of the program are presented in the third section, and, in the final section, results for other programs aimed at similar target groups are compared with the findings for Supported Work. We conclude with a discussion of several important qualifications and a consideration of alternative strategies for increasing employment opportunities for the disadvantaged.

THE PROGRAM

Supported work is a transitional work experience program, designed for persons with serious employment difficulties. The four main target

groups for the program are women who are long-term recipients of Aid to Families with Dependent Children (AFDC) ex-addicts, ex-offenders, and young school dropouts. To ensure focusing on those in greatest need, the program enforces strict eligibility criteria and pays wage rates near the legal minimum wage. As can be seen in Table 1, Supported Work participants are considerably more disadvantaged than CETA enrollees with regard to both employment experience and schooling.[2] Across the Supported Work target groups, the AFDC participants have had the least employment experience and those in the youth group, nearly all of whom have not completed high school,[3] have the least formal education. Descriptive data on the Supported Work target group samples are presented in Table 2.

A primary goal of Supported Work is to enable those who have had little, if any, successful experience in the labor market a chance to hold a job, to succeed in that job, and to move eventually into unsubsidized, permanent employment. As a result of a successful employment experience, both during and after participation in Supported Work, it is hoped that participants will become less dependent on welfare, and will be less likely to use drugs and to participate in criminal activities.

The program is based on the premise that participants can be successfully employed (and will engage in less deviant behavior) if they work in the company of their peers and under close supervision by technically qualified people who understand the work histories and personal backgrounds of their crew members. The goal is for these supervisors to enforce gradually increased standards of attendance, productivity, and

TABLE 1

Characteristics of Enrollees in Supported Work and CETA

Characteristics at Enrollment	Supported Work	CETA--Fiscal Year 76	
		Adult Employability Development Component Titles I, II, VI	Public Service Employment Titles I, II, VI
Unemployed (%)	97%	50%	48%
Number of Continuous Weeks Not Employed			
≤ 4	6%	20%	23%
5-13	5	28	33
14-26	7	22	19
27-39	6	10	8
over 40	76	20	17
Years of Schooling			
<12	60%	38%	22%
12	30	43	42
>12	10	19	36

Source: Manpower Demonstration Research Corporation (1978).

Note: The data on Supported Work enrollees are based on data in the Supported Work Management Information System and those on CETA enrollees were obtained from Westat, Inc. (1977).

TABLE 2

Characteristics of the Sample at Enrollment, by Target Group

Characteristic	Target Group			
	AFDC	Ex-Addict	Ex-Offender	Youth
Male (%)	0.0	80.9	94.7	88.6
Average Age	34.4	27.8	25.4	18.3
Race/Ethnicity				
Black, Non-Hispanic (%)	83.3	78.4	84.1	76.5
Hispanic (%)	10.2	7.1	8.7	13.9
White, Non-Hispanic (%)	6.5	14.5	7.2	7.4
12 or More Years of Education (%)	30.3	27.0	25.2	0.8
Currently Married (%)	3.1	23.5	12.9	4.5
Average Number of Dependents in Household	2.2	0.9	0.4	0.1
Ever Held a Job (%)	83.6	95.3	87.8	76.8
Average Number of Weeks Worked during Previous 12 Months	3.5	10.4	5.6	9.7
Average Earnings during Previous 12 Months ($)	220	1,228	564	799
Average Number of Years Received Welfare	8.6	n.a.	n.a.	n.a.
Received Welfare during Previous Month (%)	99.9	41.3	20.0	10.9
Living in Public Housing (%)	38.5	16.1	21.6	26.7
Ever Used Drugs Regularly (other than marijuana) (%)	n.a.	90.3	38.6	5.9
Ever Used Heroin Regularly (%)	n.a.	87.0	33.1	3.8
In Drug Treatment during Previous 6 Months (%)	n.a.	90.9	11.2	1.9
Average Number of Arrests	n.a.	8.1	8.9	2.5
Average Number of Convictions	n.a.	2.8	3.0	0.7
Incarcerated during Previous 12 Months (%)	n.a.	27.4	91.5	20.7
Number in Sample	707	742	891	490

Note: These data were obtained through interviews administered to experimental and control group members at about the time the experimentals were enrolled in the demonstration. They refer to only those individuals included in the analysis discussed in Section III.

n.a. = data not available or not analyzed.

performance until they resemble those for unsubsidized jobs. After 12 or 18 months, depending on the site, participants are required to leave the program whether or not they have found other employment. This transitional aspect of the program is similar to limitations imposed on participation in many subsidized employment programs but is a major difference between Supported Work and sheltered workshops. Although participants are expected to learn some occupation-specific skills during the program, the emphasis of the program is on development of work habits, skills, and motivation that enhance employability. By succeeding at Supported Work jobs, participants also can develop an employment record that will distinguish them from an overall group that employers generally regard as poor risks.

The type of work is primarily construction and services, with ex-addicts and ex-offenders working mainly in construction and AFDC women working mainly in services. Although the jobs tend to be in relatively low-skill, labor-intensive activities where private sector wage rates are low, it can be seen in Table 3 that the work has ranged across many industries.

The Supported Work demonstration is run nationally by the Manpower Demonstration Research Corporation (MDRC). Under MDRC's supervision the program is operated at 21 sites by local organizations, (in most cases) independent agencies whose major or sole function is running the program. These agencies must supplement their national funding either by marketing their output or by raising other local funding, (e.g., grants from CETA prime sponsors). Since Supported Work is a new program in most of the cities, in many cases these organizations have established entire

TABLE 3

Distribution of Project Days in the Second Supported Work Contract Term, by Industry

Industry	Percentage of Total Days	
Agriculture	3.9	
Construction	33.9	
Building Rehabilitation		9.7
Painting		9.6
Deleading		4.2
Demolition, Cleaning and Sealing		3.1
Other		7.3
Manufacturing	7.1	
Transportation, Communications	4.3	
Wholesale Trade	0.3	
Retail Trade	3.2	
Services	45.7	
Clerical		8.7
Cleaning and Maintenance		8.5
Protective Services		3.0
Other Business Services		11.1
Reupholstery		3.2
Auto Repair		2.9
Social Services		4.8
Health and Education Services		2.8
Miscellaneous		0.7

Source: Manpower Demonstration Research Corporation (1978, pp. 69-73).

production operations in order to provide job experience of the desired type.[4] Because it is a demonstration, the Supported Work programs are small relative to the local labor markets. (Typically, progrmas range in size from about 75 to 200 slots. However, a few have enrolled over 300 participants at one time.)

The national funding of the program, while covering less than total expenses, provides a financial base that allows considerable flexibility in the choice of projects. Most of the work is done for the public and nonprofit sectors, and mostly for a nominal charge, if any. The average net subsidy cost per person year (expenditures minus sales revenue) declined from over $13,000 in the first year to under $11,000 in the second year.[5] However, since the program wage of participants accounts for almost half of expenditures and since the opportunity cost of this labor is low, the program's social cost is considerably lower than its expenditures.

As can be seen in Table 4, expenditures (minus sales revenue) per participant appear to be somewhat higher for Supported Work than for other related programs, such as Job Corps and Title VI of CETA. In considering these figures, however, one should bear in mind that Job Corps is a residential program that does not pay wages but has large expenditures for room and board, and that the overhead costs of Title VI are artificially low since most supervisory and space costs are borne by the host agencies with which the CETA public service workers are placed.

Supported Work clearly demonstrates the feasibility of creating a small number of jobs for the members of its target groups. Greater difficulties, however, would undoubtedly be encountered in a large-scale

TABLE 4

Average Net Expenditures for Selected Programs
(adjusted for inflation through June 1977)

Program	Average Net Expenditure Per Participant Year ($)[a]	Average Length of Stay (years)	Average Net Expenditure Per Participant ($)[a]
Supported Work	10,805	.62	6,753
Job Corps	9,507	.45	4,278
CETA: Title VI	8,935	.54	4,825

Source: Manpower Demonstration Research Corporation (1978, p. 184).

[a]Net expenditure is defined as program expenditures minus revenue from the sale of project output.

national program. The small size of the programs may reduce administrative problems and the opposition of both unions and private employers. Moreover, since administering agencies were chosen on the basis of grant applications,they are likely to be among the better qualified to run such programs. Finally, because the program is a demonstration, a considerable amount of technical and other support has been available.[6]

THE EVALUATION DESIGN

In contrast to most previous subsidized employment programs, a large-scale evaluation of Supported Work was built into the demonstration design. This evaluation has four principal components: (1) an outcome analysis to test various behavioral hypotheses (e.g., that the program will lead to increased post-program employment and earnings of participants);

(2) a benefit-cost analysis; (3) a process analysis; and (4) a documentation study. In 10 sites, eligible applicants for Supported Work were randomly assigned to an experimental or control group. The outcome analysis is based on comparisons between these two groups, using data from a set of in-person interviews. The benefit-cost analysis attempts to put dollar values on the program effects estimated in the outcome analysis[7] and to estimate the value of output produced by program participants.[8] The total measurable benefits are then compared with program costs.

The process analysis attempts to determine what components of the program (e.g., characteristics of jobs or of supervisors) have the most effect on outcome measures such as attendance, length of stay in program, and ultimately post-program employment and earnings. The documentation study analyzes how strategic and operational decisions affecting the degree of program success were made at each site. It considers the interaction of referral agencies, funding sources, customers, post-program employers, unions, and local politicians, and the constraints and opportunities these interactions create for the programs.

The first three components of the research are being conducted for MDRC by Mathematica Policy Research, with the Institute for Research on Poverty; the documentation study is being done by MDRC. This paper discusses, primarily, results from the outcome analysis.

The total sample for the outcome evaluation includes over 6,500 persons evenly divided between experimentals and controls. It is expected that 4,600 of these individuals will complete both 9- and 18-month interviews; about 2,500 sample members will complete a 27-month interview, and about 700 will complete a 36-month interview.

The dependent variables of primary interest in the outcome analysis are employment and earnings, transfer income, drug use, and criminal activity. For all target groups it is expected that experimentals will have more employment and earnings than controls. During the initial months after enrollment, these effects would occur mainly as a result of experimentals having the opportunity to hold a program job. Expectations with regard to post-program effects are less firmly held. Still, it is expected that the Supported Work experience might have positive effects due to some combination of improved work habits, improved occupation-specific skills, a better work record to present to prospective employers, and the placement efforts of program operators. On the other hand, negative results are also possible, especially to the extent that program participants become eligible for unemployment compensation and/or are still searching for a job in the immediate post-program period. To the extent that program participation leads to increased earnings, welfare payments and other income-conditioned transfers are expected to decrease.

There are several reasons to expect that an employment program such as Supported Work might reduce the criminal activities of its participants. First, by providing a legitimate means for ex-offenders to obtain income, Supported Work might reduce the rate of recidivism,

especially for property crimes. Second, the program may reduce crime by increasing the opportunity cost of deviant behavior (e.g., the loss of program earnings as a result of arrest and incarceration). Third, the program may lead individuals to alter their self-perceptions and their attitudes concerning legitimate work.

Expectations as to the effects of Supported Work on the use of drugs are more ambiguous. Although it is hoped that employment in a supportive atmosphere will reduce the likelihood and/or extent of drug use, especially by ex-addicts, it is possible that the additional income resulting from Supported Work may lead to greater expenditures on drugs.

RESULTS

In this section, we present preliminary results for the outcome analysis.[9] These results are based on 18 months of data for a sample of 2,830 individuals who were enrolled in the Supported Work demonstration between April 1975 and February 1977 and who completed baseline-interviews plus follow-up interviews 9 and 18 months after enrollment.[10] The allocation of the analysis sample by site and target group is presented in Table 5.

Multiple regression analysis was used to estimate the experimental effects. In addition to a dummy variable for experimental status, control variables, measured from baseline interviews, have been included for site, age, sex, race, schooling, marital status, household size and composition, eligibility status, length of site operation, length of longest previous job, weeks worked in previous year, job training in previous years, and income from various sources during the previous month.

Employment and Earnings

As can be seen from Table 6, Supported Work led to greater employment and earnings among experimentals than among controls, particularly during the period when experimentals were eligible for Supported Work jobs. These program effects were largest during the first 9-month period, when the percentage employed was between 39 and 64 points higher for experimentals than for controls. The effects on employment and earnings were largest for AFDC target group members, in part because experimentals in the AFDC group tended to stay in Supported Work the longest (over nine months, on average). The relatively larger earnings differential for the AFDC group was due in part to the greater hours differential between experimentals and controls and in part to the somewhat higher wage rates earned by experimentals than by controls.[11]

TABLE 5

Sample Allocation, by Site and Target Group

	Target Group				Total	
	AFDC	Ex-Addict	Ex-Offender	Youth	Number	Percent
Site						
Atlanta	80	n.a.	n.a.	17	97	3.4
Chicago	138	163	128	n.a.	429	15.2
Hartford	50	n.a.	117	220	387	13.7
Jersey City	n.a.	286	119	156	561	19.8
Newark	171	n.a.	147	n.a.	318	11.2
New York	205	n.a.	n.a.	35	240	8.5
Oakland	37	43	147	n.a.	227	8.0
Philadelphia	n.a.	250	112	62	424	15.0
San Francisco	n.a.	n.a.	121	n.a.	121	4.3
Wisconsin	26	n.a.	n.a.	n.a.	26	0.9
Total Number	707	742	891	490	2,830	100.0
Percentage of Total	25.0	26.2	31.5	17.3	100.0	

n.a. = not applicable.

TABLE 6

EXPERIMENTAL-CONTROL DIFFERENTIALS IN EMPLOYMENT RATES, HOURS WORKED, AND EARNINGS

	Months 1-9			Months 10-18			Months 16-18		
	Experimental-Control Differential		Control Group Mean	Experimental-Control Differential		Control Group Mean	Experimental-Control Differential		Control Group Mean
Employed (%)									
AFDC	62.9**		32.2	39.1**		36.4	10.4**		30.3
Ex-addict	47.9**		46.6	14.4**		50.0	-2.6		39.5
Ex-offender	38.9**		56.3	9.1**		55.9	3.6		42.8
Youth	48.4**		50.1	5.8		59.4	-5.3		47.4
Monthly Hours Worked		Program Hours			Program Hours			Program Hours	
AFDC	115**	(131)	23	44**	(43)	34	18**	(7)	37
Ex-addict	79**	(102)	39	18**	(30)	47	-2	(6)	49
Ex-offender	74**	(99)	44	11**	(21)	56	1	(5)	58
Youth	88**	(104)	36	12**	(27)	56	-3	(7)	60
Monthly Earnings ($)		Program Earnings			Program Earnings			Program Earnings	
AFDC	351**	(388)	59	152**	(130)	110	78**	(22)	122
Ex-addict	205**	(293)	151	55**	(92)	194	-1	(18)	208
Ex-offender	206**	(288)	160	45**	(67)	224	29	(19)	233
Youth	240**	(283)	104	40**	(77)	174	-2	(22)	195

**Statistically significant at the 5% level.

During the second 9-month period after enrollment, when between 34 and 68% of the experimental group members did not participate in the program at all, significant experimental-control differences persisted, although the magnitude of the differences declined substantially.[12] As in the first nine months, these differences were largest for the AFDC target group.

In many respects, the most interesting results are those for the 16- to 18-month period. By the start of this period about 92% of the sample had left the program; thus, these results can be viewed as preliminary indications of post-program effects. As can be seen in Table 6, the only significant differences in employment-related outcomes during this period were for the AFDC target group. A significantly higher percentage of experimentals than controls in this group were employed during this period and, on average, the experimentals worked 18 hours and earned $78 more per month than their control group counterparts. Contributing to these large differences for the AFDC group relative to those for the ex-addict, ex-offender, and youth groups was the AFDC controls having worked and earned substantially less than controls in the other target groups.

Welfare and Other Income

As shown in Table 7, the increase in earnings and, during the second 9 months, the increase in unemployment compensation benefits among experimentals relative to controls was accompanied by a substantial decrease in welfare dependence. Over the full 18-month period, a reduction in the

TABLE 7

Experimental-Control Differentials in Income from Various Sources

	Months 1-9		Months 10-18		Months 16-18	
	Experimental-Control Differential	Control Group Mean	Experimental-Control Differential	Control Group Mean	Experimental-Control Differential	Control Group Mean
Receiving Welfare Income (%)[a]						
AFDC	-5.9**	99.4	-11.4**	91.1	-15.0**	85.4
Ex-addict	-20.7**	50.9	- 6.2**	48.5	- 5.2	44.1
Ex-offender	-13.2**	30.7	- 6.4**	29.7	- 6.0**	25.3
Youth	-5.4	15.8	- 1.3	21.8	- 1.4	18.3
Monthly Amount ($)						
AFDC	-110**	274	-82**	242	-72**	233
Ex-addict	- 47**	94	-13*	89	- 9	88
Ex-offender	- 19**	36	-13**	45	-15**	47
Youth	- 8*	21	-13**	33	- 9	33
Monthly Food Stamp Bonus Value ($)						
AFDC	-20**	65	-18**	61	-15**	60
Ex-addict	- 4**	20	- 3	23	- 2	23
Ex-offender	- 3*	15	- 3	15	- 2	14
Youth	0	17	- 6	16	- 5	15
Monthly Unemployment Compensation ($)[b]						
AFDC	-2**	2	29**	4	47**	5
Ex-addict	-8**	11	21**	8	35**	9
Ex-offender	-4**	6	11**	9	14**	10
Youth	-5*	7	16**	6	24**	7
Monthly Earnings ($)						
AFDC	351**	59	152**	110	78	122
Ex-addict	201**	151	55**	194	-1	208
Ex-offender	206**	160	45**	224	29	233
Youth	240**	104	40**	175	-2	195
Total Monthly Income ($)						
AFDC	225**	409	88**	426	44**	430
Ex-addict	144**	288	51**	330	25	345
Ex-offender	167**	230	15	318	7	327
Youth	228**	161	9	265	-19	280

[a] Welfare income includes AFDC, GA, SSI and other unspecified welfare income. Nearly all of the AFDC group's welfare income was from the AFDC program, while most of that received by the other target groups was from General Assistance programs.

[b] Except in New York, Supported Work did not participate in the Unemployment Compensation program. Thus, the experimental group's benefits would have been funded primarily by the federal Special Unemployment Assistance (SUA) program.

* Statistically significant at the 10% level.

** Statistically significant at the 5% level.

percentage of experimentals receiving any benefits, together with a decrease in payments among many who continued to receive welfare after enrolling in the program, led to an average reduction in monthly welfare payments among experimentals of almost $100 for the AFDC group and of $30 for ex-addicts. In addition to this reduction in cash transfers, experimentals (in all but the youth group) tended to receive lower food stamp bonuses than controls. Especially among the AFDC group, experimentals also tended to lose their Medicaid benefits as a result of their increased earnings: 75% of the AFDC experimentals, compared with 88% of controls, had a Medicaid card at the time of their 18-month interview.

The earnings gains more than compensated for the decrease in transfer payments. Consequently, experimentals increased their income substantially relative to controls, especially during the early months of the program. On the other hand, the net return from working was less than the actual money earned due to the resulting decrease in welfare benefits. This was particularly true for the AFDC experimentals, whose total income increased by less than 75 cents for each dollar of earnings. Despite this substantial implicit welfare tax, we did not find that post-enrollment employment experiences were sensitive to expected welfare benefit reductions.[13]

Drug Use

Supported Work had very little impact on drug use, even among the ex-addict group, virtually all of whom had been in drug treatment prior to enrolling in the program.[14] The only significant finding was that among

the youth group, which reported relatively little drug use prior to enrollment in Supported Work, experimentals tended to be more likely than controls to use marijuana.[15]

Criminal Activities

Table 8 summarizes some of the key findings related to involvement in crime.[16] In addition to the findings for the two 9-month periods, we have included results for the full 18-month period, since these provide a better indication of the cumulative effect of Supported Work on involvement in criminal activities. For the ex-addict target group, significantly fewer experimentals than controls (25% versus 36%) reported having been arrested during the 18-month period. A large portion of this differential in arrests was attributable to a reduction in robbery and drug-related arrests.[17] Experimentals in the ex-addict group also reported fewer convictions and incarcerations than controls. Similarly favorable results in terms of reduced involvement in crime were not observed for the ex-offender and youth target groups. Since the employment results for all three groups were quite similar, employment differences cannot explain the discrepancy in the results. It may be, however, that the effect of Supported Work on legitimate income relieved one of the ex-addicts' main motivations for committing robberies or making illegal drug sales.

COMPARISON WITH OUTCOME RESULTS FOR OTHER PROGRAMS

This section compares the preliminary results for Supported Work with those for other programs aimed at somewhat similar clients.

TABLE 8

Experimental-Control Differentials in Arrest Rates

	Months 1-9		Months 10-18		Months 1-18	
	Experimental-Control Differential	Control Group Mean	Experimental-Control Differential	Control Group Mean	Experimental-Control Differential	Control Group Mean
Arrested (%)						
Ex-addict	-5.2*	21.7	-6.9**	19.6	-11.2**	35.9
Ex-offender	-4.1	32.4	3.1	21.8	-2.2	44.8
Youth	-2.8	19.1	1.0	15.0	-2.8	28.5
Arrested for Robbery (%)						
Ex-addict	-4.4**	5.5	-2.7**	3.5	-6.7**	8.8
Ex-offender	1.7	4.9	-1.0	4.5	0.2	8.9
Youth	-1.1	5.2	0.4	2.4	-0.8	7.7

*Statistically significant at the 10% level.

**Statistically significant at the 5% level.

These comparisons should be treated cautiously because both the target groups and the evaluation methods differ across programs. Although the direction of bias in the comparisons is not always clear-cut, the lack of a random control group in most other studies is likely to result in an overestimation of the effect of the programs being evaluated since, holding measurable variables constant, those who are most eager to work are most likely to gain entrance to employment and training programs. This section begins with a comparison of the AFDC target group results with WIN evaluation results. How the effects of Supported Work for ex-offenders and ex-addicts compare with the effects of alternative programs for these groups are then discussed. The section concludes with a comparison of Supported Work results for youth with those for two other employment programs for youth: Job Corps and the Neighborhood Youth Corps.[18]

Comparison with WIN Evaluations

The Supported Work AFDC population is a subset of the WIN registrants. The eligibility criteria for Supported Work include being on AFDC continuously for at least three years and having no job of more than 20 hours per week during the past six months.[19] As a result of these criteria, the work experience of Supported Work participants is considerably less than that of WIN participants.[20] On the other hand, participation in WIN is compulsory while participation in Supported Work is voluntary. Thus, it may be that the Supported Work participants (and corresponding control group members) are more eager to work than the average WIN enrollee.

There have been two recent evaluations of the WIN program: one by Schiller (1978) covering the 1973-75 period and the other a report by Ketron, Inc. (1979). The WIN program includes job search, education and training, and subsidized employment components, but has as its ultimate objective employment in unsubsidized jobs. Schiller reports average earnings effects of WIN participation ranging from $25 per month for women receiving job placement to $118 per month for those participating in on-the-job training (OJT) or public service employment (PSE); the more recent Ketron report presents estimates of median effects of WIN on earnings that range from $18 per month for those participating in vocational training to $89 per month for those in the on-the-job training component of the program.[21] (Both studies indicate that the orientation and education components of WIN have virtually no effect on subsequent earnings). In comparison, Supported Work led to average earnings gains of between $56 and $78 per month during the period immediately after leaving the program, which are between the extremes of these findings for the WIN program.[22] The somewhat larger results for participation in PSE and OJT components of WIN compared with Supported Work are due, in part, to the fact that both WIN evaluations included some in-program earnings gains in their estimates while the lower bound of the Supported Work estimated gain contains no program earnings.

Both the Supported Work results and those of the WIN evaluation show smaller earnings gains among those with more recent employment experience, suggesting that it may make sense to focus employment programs on those among the AFDC population without recent labor market experience.

This is consistent with the philosophy of the Supported Work program. The combined experience of WIN and Supported Work suggests that there is a sizable number of women receiving AFDC who want to work and will take advantage of opportunities made available through subsidized employment.

Comparison with Programs for Ex-Offenders and Ex-Addicts

There has been a wide variety of programs to improve the employability of ex-offenders. As described by Cook (1975) and by Taggert (1972), however, the evaluations of these programs have not been very optimistic. Taggert, for example, summarizes the evidence in the following passage (pp. 96-97):

> There is no proof that any single manpower service or strategy has had more than a marginal impact on its recipients, and no proof that any combination of services can make a substantial contribution. Some glimmerings of success have shown through and these should obviously be exploited; but overall, the results have been disappointing. On the basis of the existing evidence, it does not seem likely that the employment problems of offenders can be significantly alleviated by manpower programs, or that these programs will have a noticeable impact on the rate of crime.

The results of Supported Work for ex-offenders are consistent with these earlier results.

Among the more recent programs for ex-offenders, the Living Insurance for Ex-Prisoners (LIFE) program in Baltimore (Mallar and Thornton, 1978) provides interesting results to compare with those of Supported Work. The sample of 432 participants was randomly assigned (in equal numbers) to one of four treatments: (1) $60 per week for three months after their release from prison, (2) job search assistance,

(3) both, or (4) neither (control group). Job search assistance had very little effect, but those obtaining the cost subsidy to help them get started were earning $29 per month more by the third quarter after the payments ended than the control group and were less likely to have been arrested or incarcerated since enrolling in the program. In contrast, Supported Work appears to be having little impact on either criminal activity or post-program earnings of ex-offenders. LIFE differs from Supported Work in three important respects; it provides income rather than employment; participants enroll immediately upon release from prison; and it is aimed at offenders with no history of drug or alcohol abuse but with a high chance of recidivism for theft.[23] This targeting may be especially important since no positive results have been found for the TARP program, a larger-scale program of experimental treatments similar to those in LIFE, undertaken in Georgia and Texas but which enrolled a random sample of released prisoners (see Stephens and Sanders [1978] and Smith and Martinez [1978]).

The Supported Work program is similar to the TARP program in that no effort is made to target the program on ex-prisoners with a high probability of recidivism. In contrast to both LIFE and TARP, however, Supported Work is not focused on those who have just been released from prison. To be eligible, ex-offenders need have been incarcerated only within the past six months.[24] The results from LIFE and TARP suggest that Supported Work might be more effective for ex-offenders if it were targeted more carefully.[25] Since the LIFE program is less expensive than Supported Work these results also suggest that, for this group, cash assistance may be more cost-effective than subsidized employment.

In contrast to the number of employment-related programs for ex-offenders, there have been very few programs aimed specifically at ex-addicts. Two programs for which evaluation results are available are the Wildcat program, which was a pilot program for the national Supported Work demonstration, and the TREAT program, which provided job training and part-time employment. There is some evidence that the Wildcat program increased post-program earnings for experimentals but it did not have any long-term effect on arrest rates (see Friedman, 1978a and 1978b). However, since the sample is small (about 400) and random assignment was rigorously adhered to (e.g., no-shows, ineligibles, and a moderate percentage subjectively judged to be unqualified by program managers have been excluded from the experimental group), these findings should not be regarded as definitive. The evaluation of the TREAT program, on the other hand, shows no evidence of the program's having improved the participants' long-term employment outcome (Blass and Woodward, 1978). However, there is some indication that experimentals as compared with controls were arrested less often and responded better to drug treatment. The arrest results observed for both TREAT and Supported Work suggest that holding a job reduces the need for illegal income--at least for those with only a moderate habit. It is still too early to know whether the crime results for Supported Work will continue if the earnings results do not. Nevertheless, the crime results are important even if they should only apply to the in-program period.[26]

Comparison with Job Corps and Other Programs for Youth

Since the start of the War on Poverty in the mid-1960s, there have been numerous employment and training programs for disadvantaged youth.

These include the Jobs Corps and Neighborhood Youth Corps (NYC) of the poverty program, various older CETA programs (including the Job Corps) and the new CETA programs established by the Youth Employment and Demonstration Projects Act of 1977.

Most CETA programs have been subject to relatively little evaluation, due in part to their decentralization and diversity. More study has been done of the programs of the 1960s, however, and a recent careful evaluation has been done of the current Job Corps program. The early studies of NYC and Job Corps found a small earnings effect (less than $200 per year) and little evidence of any other positive post-program impact.[27] A more recent Job Corps study by Mallar et al. found only small average gains in post-program earnings for male Job Corps enrollees, but did find significant reductions in criminal activity.[28] As a result, long-term program benefits are predicted to exceed program costs, from societal, participant, and nonparticipant perspectives.

In contrast to Supported Work's emphasis on work experience, the Job Corps, whose target groups are quite similar, emphasizes education and training as well. Its unique feature relative to other employment and training programs is its residential character. Quite possibly, the program is relatively successful, especially in reducing crime, because there are fewer opportunities to commit crimes in the Job Corps centers. On the other hand, the results may also represent the effect of greater self-selection biases than for other youth programs (especially with regard to the crime results), since those who

are most eager to "go straight" may be most interested in attending a residential program.

CONCLUSION

In this section, we summarize the results for Supported Work, discuss important qualifications, and consider alternative strategies for increasing employment opportunities for the disadvantaged.

Summary and Qualifications

The preliminary results for Supported Work, together with the review of other evaluation studies, suggests that there is a sizable number of AFDC participants who are eager, capable workers but who will not be able to overcome various barriers to employment without the initial aid of a subsidized program. For ex-offenders, ex-addicts, and youth, there do not appear to be any post-program earnings effects for Supported Work, but there is evidence that the program led to reduced crime among ex-addicts.[29]

These conclusions, however, are subject to some important qualifications. First, the results compare Supported Work with whatever programs are available for controls rather than comparison with the effect of no program. Second, the length of follow-up is not yet long enough to warrant any conclusions about the long-term effects of Supported Work. Third, the experimental-control differences may be misleading to the extent that the program has effects on nonparticipants. The implications of each of these problems will be discussed briefly below. Then we

will discuss alternative approaches for dealing with the employment problems of the Supported Work target groups.

With regard to the effect of alternative programs on our results, we have information for both experimentals and controls on participation in job training and public employment programs.[30] For both the AFDC and youth samples, a larger number of controls than experimentals report participation in training programs but the differential was less than 6 percentage points and the maximum enrollment was 11% for youth controls in months 10 to 18. Substantial participation in public employment programs was reported, with about 20% of the non-Supported Work jobs likely to have been subsidized through programs such as CETA or WIN.[31] Although there is little difference in this percentage between experimentals and controls, it is generally a little larger for controls. More important, the overall nonprogram earnings are considerably larger for controls than experimentals during the period under study. Thus, the earnings results for Supported Work would probably be somewhat more positive in the absence of these other subsidized employment programs.

The second qualification with regard to the results concerns the limited post-program follow-up data currently available. Soon results will be available for 27 months after enrollment for a sample of approximately our present size and for 36 months for a much smaller sample. Although the results for months 16 to 18 presented previously provide some useful information on post-program labor market experiences, it is important to remember that from 5 to 10% of experimentals were still in the program at the start of this period and that about 2% remained in the program at the end of the eighteenth month.

In general, studies have shown that initial post-program effects of employment and training programs decay over time.[32] The fact that only a small number of the experimentals were still in the program during the period that has been referred to as the start of the "post-program" period would appear to reenforce this expectation. On the other hand, there are also important reasons why the post-program effects reported here may increase in the future. Since a significant number of participants have recently left the program, this group may include many who are still searching for an acceptable job. Furthermore, after leaving Supported Work many participants were eligible for (and received) Unemployment Compensation (UC) benefits, primarily though the Special Unemployment Assistance (SUA) Program.[33] As shown in Table 6, the differentials in UC receipt between experimentals and controls are quite sizable, especially in months 16 to 18. Undoubtedly, the availability of such payments reduced the employment and earnings of experimentals during this period. The long-run earnings effects of Supported Work are unclear: the Unemployment Compensation payments may permit recipients to search longer and thus find better jobs, but the longer search time may partly negate the effect of Supported Work on job skills and credentials. However, given the extent of UC receipt during the 16 to 18 month period, we might expect effects on earnings at the end of 27 months to be larger than those observed for this earlier period.[34]

The third important qualification with regard to these results concerns the possibility of program effects on nonparticipants. Our methodology implicitly assumes that there are no such effects.

In fact, however, the program may reduce employment among those with whom experimentals are competing for post-program jobs (e.g., those in nonunion construction) and open up employment opportunities for others who may be less likely to compete with experimentals as a result of the program (e.g., dishwashers). Such changes in competition may result either during the program or during the post-program period. If wage rates are flexible, then the effects on nonparticipants should be mainly on wage rates. However, given minimum wages and various other "rigidities," both the employment and earnings of nonparticipants might be affected. For workers in the experimental group who are actively in the labor force before, during, and after the program it is unclear whether the net impact on nonparticipants would increase or decrease the benefits of the program, as measured by simple experimental-control group comparisons.[35] If workers in the experimental group would not have entered the labor force except for the program, however, this analysis suggests that the approach used here would tend to overestimate program benefits.[36] Since those in the AFDC target group are least likely to have entered the labor force in the absence of the Supported Work program, the results in Table 6 which suggest that the post-program employment and earnings effects are greatest for the AFDC group must be qualified accordingly. The only way to estimate the effects of an employment program on nonparticipants is to establish large programs in selected labor markets and then compare the experience in these labor markets with that in otherwise comparable labor markets where the program is not established.[37]

Alternative Policies

In conclusion, we will briefly consider three alternative approaches to increasing the employment of the types of disadvantaged persons in the four Supported Work target groups. One approach is to operate programs which are similar in many respects to Supported Work but place less emphasis on transition and "mandatory graduations" after a year or so. The second is a program of tax credits or other subsidies to private employers for hiring disadvantaged workers. And the third is to implement policies to stimulate aggregate demand in the economy, which will affect the availability of jobs for all kinds of workers.

Although there are positive post-program effects of Supported Work for some groups, it appears that, to be a success in these terms, the program must be carefully targeted. More attention could alternatively be given to effects during the in-program period. The most important consideration in this regard is the value of the output produced by participants. If this value is high, then the program may be judged highly successful even if it has little or no post-program effects. In fact, it may then be desirable to eliminate or at least reduce the requirements that participants leave the program within about a year.[38] On the other hand, in the very extreme case where no useful output is produced and there are no positive post-program effects, it is difficult to see why a subsidized employment program would be preferable to an income transfer program aimed at the same target group.

From an evaluation perspective a crucial problem is measuring the value of output when the output is generally not sold on a normal market basis.

One approach is to estimate what it would have cost to produce the output in the absence of the program. Using this methodology, Friedman estimated that for the Wildcat Supported Work program (the program on which the national demonstration was modeled), the value of output produced was more than 70% of the program's costs (see Friedman, 1977). For the national demonstration, however, the estimates have not been this high.

The supply price factor is but one consideration in valuing output, although it is one of the easiest to quantify. Other factors include the extent of displacement and the extent to which displaced resources are productively employed in producing other output, the pricing policy of the program operators and the extent to which the amount of revenue generated represents willingness to pay for output rather than for the social goals of the program, and the extent to which the output produced can help reduce market failures in the economy (for further discussion see Kemper and Moss, 1977). More attention should be paid to the value of output of subsidized employment programs (see Zimmerman and Masters, 1979).

A second alternative to Supported Work is a program of tax credits or other subsidies to private employers who hire disadvantaged workers. One example of this approach is the federal Targeted Jobs Credit Program, which went into effect in January 1979. Previous experience with such targeted tax credits in this country has not been very encouraging, however. For example, in discussing the experience with targeted wage subsidies such as the NAB-JOBS program of the late 1960s and the tax credit available to firms who have WIN enrollees, Hamermesh (1978, p. 97) concludes:

> The common thread in these few, limited wage subsidies is the failure of employers to respond to programs whose magnitude and expected effect on labor demand would seem to make them attractive. Experience suggests that there is a serious problem, either of resistance to paper work or reaction to the implication of a worker's eligibility (a stigma effect) that must be overcome if such subsidies are to have a strong impact.

Since it may be possible to overcome the difficulties experienced in previous private sector subsidy programs, it seems desirable to experiment further with targeted tax credits for hiring the disadvantaged. On the other hand, a new federal program should not be assumed to have a high probability of dramatic success, either absolutely or relative to subsidized employment programs in the public sector that are targeted on the same disadvantaged groups.

The third alternative is to expand employment opportunities for the disadvantaged by increasing aggregate demand and, thus, increasing job opportunities for everyone.[39] The well-known difficulty with this approach is its likely effect on inflation. The factors determining the extent to which a given increase in demand will lead to increases in output and employment as opposed to prices and wage rates is a most important topic. Some conclusions are fairly obvious. For example, demand increases that are targeted primarily on surplus rather than bottleneck sectors should be less inflationary than those having their primary impact on sectors already experiencing shortages. Similarly, increases in aggregate demand should have less effect on inflation when there is considerable slack in the economy than at times when the economy is producing near capacity. There does not appear to be much agreement on most other predictions, and even these may not be consistent with an extreme version of the monetarist position.

The tradeoff between employment and inflation requires the analysis of product and financial markets, as well as labor markets. During the past two decades, detailed work on the labor market behavior of firms and unions has been the subject of a diminishing proportion of the research of labor economists. Instead interest has shifted heavily toward human capital issues and the behavior of households. Some attention has been devoted to employment and training programs (as in the studies mentioned previously in this paper). However, most of these studies emphasized effects on the behavior of individuals rather than on the behavior of institutions.[40]

It may now be time for labor economists to put more emphasis on the demand side of the labor market, including the behavior of employers and unions. Theoretical work, based on insights from industrial relations as well as microeconomics, and empirical research are both needed. One example is the need for controlled experiments to evaluate the effectiveness of demand side interventions, such as tax credits for hiring the disadvantaged.[41]

The final report on the Supported Work demonstration will increase our knowledge about ways to reduce the unemployment problem. However, independent studies, some of which are currently in the design stage, will be required to adequately test the efficacy of these alternative strategies.

NOTES

[1]The Supported Work findings reported in this paper are presented in Maynard, Brown, and Schore (1979).

[2]In addition, a much smaller percentage came from families with fairly high income. See note to Table 1 for source of data.

[3]The eligibility criteria for the youth group (ages 17 to 20 at enrollment) include being out of school and not having a high school diploma.

[4]New York and Philadelphia are the only sites that had Supported Work programs before implementation of the national demonstration.

[5]These figures are taken from Manpower Demonstration Research Corporation (1978). Receipts represent approximately 20% of expenditures.

[6]The presence of a research evaluation does have some disadvantages, however, especially the need to recruit larger numbers of participants due to random assignment of half the entrants to a control group. On the other hand, a larger-scale program undoubtedly would reduce overhead costs per participant.

[7]For reduction in arrests, for example, we estimate the associated reductions in criminal justice system costs and the resource savings from reductions in personal injury and property damage. Of course, other potentially important but unquantifiable benefits, such as reductions in fear, are not included.

[8]The output is valued mainly by estimating how much it would have cost to have an alternative supplier produce the output. For an excellent discussion of both Supported Work and the value of output issue, see Kemper and Moss (1978).

[9]A more detailed discussion of the results summarized here, including a discussion of the variance in results across sites and calendar year, is presented in Maynard, Brown and Schore (1979).

[10]This sample includes only 64% of those who should, in principle, have completed all three interviews by the time the file was created: 98% responded to the baseline interview, 80% to the 9-month interview, and 69% to the 18-month interview.

[11]Wage rates during the program were set slightly below estimates of market wage rates. The AFDC program wage is higher, relative to the estimated market wage, than is that for ex-offenders or ex-addicts both because no sex differentials were established at sites that had ex-addict or ex-offender target groups and because of minimum wage constraints at all sites.

[12]It is noteworthy that during the second 9-month period, between 10 and 37% of the total earnings of experimental and control group members was from public sector jobs. Such jobs were most prevalent among the AFDC group, for which 20% of the experimental group's total earnings (40% of its nonprogram earnings) and 37% of the control group's earnings were from such jobs.

[13]This finding may seem to contradict the results of the numerous studies that suggest that there are work disincentive effects associated with welfare programs. However, welfare recipients who enrolled in Supported Work may not be representative of the whole population of recipients: Individuals voluntarily applied to Supported Work, presumably with some knowledge of the impact that both in-program and post-program earnings would have on their welfare benefits.

[14]Reported drug use among the AFDC target group was very low, as one would expect given that less than 2% of the AFDC population is reported to have drug abuse problems (primarily analysis of the 1975 AFDC Survey data). Thus, drug use data were not analyzed for this sample.

[15]The increase in marijuana use did not occur primarily in those sites that also enrolled ex-addicts, however.

[16]Only the ex-addict, ex-offender, and youth groups are considered in this discussion. AFDC sample members were not asked about the extent of any involvement in criminal activities.

[17]For a portion of this sample, we compared interview data on reported arrests with information obtained through state crime records and found that both experimentals and controls under-report the occurrence of an arrest. However, there was not a significant differential in under-reporting between the two groups.

[18]Supported Work has not been compared with CETA programs, except the Job Corps, mainly because these CETA programs have been subjected

to little careful evaluation. For a criticism of evaluations of CETA programs that were based on very simple short-run performance indications such as initial placement rates, see Gay and Borus (forthcoming).

[19]According to interview data, about 90% of the sample met these eligibility criteria.

[20]Over two-thirds of the Supported Work AFDC sample had not held a job in the two years preceding their enrollment in the national demonstration, while just over one-third of the WIN participants fell into this category. See Maynard et al. (1977).

[21]One of the main differences between these two studies is their definition of the base period and their definition of post-program. The PSE and OJT results in both studies include some in-program experience. Furthermore, the Ketron results are based on very small sample sizes.

[22]The $56 figure is obtained by subtracting the program earnings of experimentals. The two estimates represent the effects of assuming that, if they were not in the program, those with Supported Work earnings in months 16-18 would compensate by increasing these earnings from other jobs either completely (the $78 estimate) or not at all (the $56 estimate).

[23]Those judged to have a relatively low probability of committing a theft crime and excluded from the LIFE experiment include those who were first-time offenders, had never committed a property crime, were over 45 years old and had been on work release for more than three months.

[24]A small percentage of those enrolled in Supported Work reported on their baseline interviews that they had not been incarcerated during this 6-month period.

[25]On a priori grounds, it might be argued that the program should be aimed at those just released from prison and, thus, needing help with financial and other adjustments. However, preliminary analysis of the data suggests that the results are not sensitive to the length of time since the individual's last incarceration.

[26]As a result of the crime effects for ex-addicts, the initial benefit-cost results for Supported Work are more favorable (from both societal and nonparticipant perspectives) than those for the other three target groups. These benefit-cost results focus entirely on efficiency effects. Because of distributional considerations, the program may be regarded very positively, even though, for each target group, measured benefits are less than costs. See Kemper, Long and Thornton (1978).

[27]See the literature review in Perry et al. (1974). See also the recent more negative results for these programs in Gay and Borus (forthcoming).

[28]See Mallar et al. (1978). The Job Corps results apply mainly to the program as of about 1977, a period that is encompassed by our Supported Work analysis. The study is based on a comparison group design which focuses on differences in the changes over time in the dependent

variables between enrollees and comparison group members. This approach appears as good as can be done in the absence of random assignment but cannot account for possible self-selectivity effects based on changes in attitudes. Although random assignment is most helpful and an important feature of the design of the Supported Work evaluation, it does not eliminate all problems of interpretation, as will be discussed shortly.

[29]From conversations with program operators, it appears that, on average, the AFDC participants are the most enthusiastic cooperative workers. Their average enrollment is also the longest. Ex-offenders have the shortest average enrollment, but operators appear to have the most difficulty with the youths. The average length of participation of those in the youth sample is somewhat longer than that of ex-offenders and about the same as for ex-addicts.

[30]Data on school enrollment were also obtained. However, school enrollment rates were generally low, and the only statistically significant experimental-control differential was for AFDC in months 1 to 9 when experimentals reported more schooling than controls.

[31]Jobs explicitly identified as CETA/WIN account for about 20% of non-Supported Work jobs for AFDC and about 10% for the other three target groups. If other jobs with state and local government are included (on the assumption that some of those jobs are subsidized without the respondents being aware of this subsidization), then the percentage of CETA/WIN jobs may be as high as 40% for AFDC, 25% for youth, and 20% for ex-offenders and ex-addicts.

[32]For example, see Ashenfelter (1978). One possible explanation for such results is that the program provides credentials or other placement assistance for the first post-program job and that this advantage becomes less important as time passes. The recent evaluation of the Job Corps program, however, shows some increase in effects over time, but this may be due to the time lag resulting from returning home from the centers, which is a unique feature of the Job Corps program.

[33]This program pays benefits to individuals who do not work in jobs covered by state UI systems, but otherwise have sufficient earnings to be eligible. The duration of benefits varies by state and amount of previous employment, but will seldom exceed 39 weeks. The program, which began in 1975, was terminated for new claims at the end of 1977 and all payments ended July 1, 1978. Thus, the program should have a much more limited impact on 27-month results.

[34]In addition to the UC argument developed in the text, longer-run effects might be larger than those observed for the 16-to 18-month period if Supported Work enabled experimentals to obtain and hold jobs with better prospects for promotion

[35]The experimental-control differentials are still appropriate for estimating the benefits and costs of the program from the perspective of participants. If the program affects the earnings of nonparticipants (whether those in the control group or others), then experimental-control differentials need not give unbiased estimates of benefits and costs for the social perspective. Due to the small size of the Supported Work program, the average effects on nonparticipants are likely to be very small.

Since many nonparticipants could be affected, however, the aggregate costs (or benefits) to nonparticipants may be significant relative to the total cost of the program.

[36]For further discussion, see Johnson (1979). See also Bishop (1979).

[37]The Youth Incentive Entitlement Pilot Projects being run by the Manpower Demonstration Research Corporation for the Department of Labor represents an attempt to address labor market impacts in this manner. So do the Employment Opportunity Pilot Projects currently being designed by the Department of Labor.

[38]The maximum length of participation in Supported Work is 12 months at some sites and 18 months at others.

[39]It should be emphasized that none of these alternatives precludes the others. In fact, some combination is likely to be optimal. It should also be noted that the gains resulting from high aggregate demand are likely to be greatest for those toward the bottom end of the skill distribution. High aggregate demand may also increase the effectiveness of other programs to aid the disadvantaged.

[40]For example, there has been relatively little attention given to how employment and training programs interrelate with firms and unions. For an interesting analysis of how Supported Work interrelates with other organizations--including firms and unions--see Ball (1977).

[41]This approach would reduce the chances that a new program such as the Federal Targeted Jobs Credit program would flounder due to unexpected, correctable problems of implementation. The experimental approach has

been suggested in the recent Report and Recommendations of the Welfare Reform Study Advising Committee (Wisconsin, 1979). For an analysis of feasibility and design issues with regard to experiments involving firms see Masters et al., (1978).

Another possible way to encourage research on firms would be for the economics profession and the government to take steps to help develop micro data sets on firms analogous to those sets now available for individuals.

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