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# The Cost Effectiveness of CETA in Kansas



The inescapable conclusion of the study's results is that CETA programs prove to be sound, cost-effective investments for the state.

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## Authors' Note

The implementation and findings of this impact evaluation system are the culmination of six years of effort by University of Kansas faculty and staff members associated with the Human Resources Program. Research projects in 1975-76 and 1978 using Department of Human Resources data laid the groundwork and tested ideas. The subsequent system is built, therefore, on a strong foundation of thorough research. We also see the system as a continuation of a strong relationship between the Human Resources Program and the Department of Human Resources (DHR), a relationship which has proved beneficial to both groups.

Without the involvement of DHR personnel, this system's metamorphosis from theory to practice would not have occurred. We particularly ac-

knowledge the role which CETA Director Richard Hernandez's enthusiasm, encouragement, and foresight played in making this a reality. Mary Bogart, Bobbi Alward, Dean Engroff, and other CETA staff members gave much of their time and effort to ensure that the system answered questions which program managers most needed answered.

We also acknowledge the role of the DHR Computer/Data Services Department. Pete Deckenback and Anne Brown translated our designs into a system that produces the tabular output accurately, readily, and cheaply. In addition, they anticipated the program changes that surely will occur and made the system sufficiently flexible to accommodate them.

Finally, we wish to thank the Human Resources Program associates who assisted us, Peter Raimondo and Jack Gibbons.

## Introduction

Today, there is a consensus that not all of the social programs developed and implemented in the 1960s and early 1970s were worth their cost. However, very few would say that, in consequence, all such programs should be abandoned. The issue is clearly one of identifying the programs

which are successful and those which are not. Following that evaluation, the decisions should be made to continue and carefully monitor the successful programs and either jettison or radically alter the failing programs. Although little disagreement exists with this position from a theoretical point of view, considerable controversy surrounds the question of which social programs are failures and which are successes. In large part, the problematic nature of this debate is occasioned by the absence of a methodology or methodologies which adequately evaluate the costs and benefits of particular programs. The article provides such an evaluative system for the programs authorized by the Comprehensive Employment and Training Act in Kansas.

In December of 1973, *The Comprehensive Employment and Training Act of 1973* (CETA) was passed by Congress and signed into law by President Nixon. With the enactment of CETA, the process of decentralizing responsibility for planning, designing, and operating the federally-funded categorical employment and training programs developed since the early 1960s was essentially completed. The motive for the decentralization of these employment and training programs arose from the realization that the problems of the unemployed and poor differed from one locality to another. By locating the decision-making process

closer to home, it was felt that more appropriate, problem-specific strategies for helping the unemployed and poor could be developed.

The Kansas Balance of State (BOS)-CETA program has spent over 80 million dollars assisting Kansans since its inception in 1973. Without a doubt, this enormous amount of money has helped the program's clients by providing training and by placing unemployed, underemployed, and economically disadvantaged individuals in jobs. However, the questions remain: Has this program been cost effective; has it been successful? To make this judgment, one needs initially an accurate description of the goals of the CETA program and then a system of evaluation which can rate the level of success achieved in relation to the cost expended.

The 1978 amendments to CETA modified the basic goals of the CETA programs. The Statement of Purpose from the 1978 amendments reads:

It is the purpose of this Act to provide job training and employment opportunities for economically disadvantaged, unemployed, or underemployed persons which will result in an increase in their earned income, and to assure that training and other services lead to maximum employment opportunities and enhanced self-sufficiency.

The federal government has measured success in the CETA program by 1) the number of persons placed in a job within 90 days after completion of training or employment and 2) the average hourly wage of all participants as recorded at termination from the program.

As reported in this article, the state of Kansas, however, has developed a more sophisticated way to measure the value of CETA to the state: the impact of CETA training and jobs on the clients' earnings. **Based upon business principles, this system evaluates the extent to which investment in training, work experience, and other services will yield a return to the state.**

This paper first examines the significant features of any system which purports to evaluate social services and then briefly describes the new methodology developed to evaluate the Kansas BOS-CETA program. Following, the new methodology will be used to measure the cost effectiveness of the Kansas BOS-CETA program.

## Evaluation: What is it?

There are basically two types of evaluations which social service program managers perform: evaluations of efficiency and evaluations of effectiveness. Evaluations of **efficiency** look at immediate or intermediate program results in relation to inputs of time, personnel, material, or money. For example, computing by quarter the number of persons trained is, in essence, measuring an immediate result of the program per period of time or the efficiency with which time is translated into training. Similarly, a cost-per-placement figure reflects the efficiency with which dollars are turned into placements. Most management information systems are designed to generate such efficiency measures of program performance. Quite properly, federal reporting requirements specify the particular efficiency measures to be reported.

Whereas, then, efficiency evaluations look at how well programs do relative to the means of accomplishing their goals, **effectiveness** evaluations consider how well programs perform relative to program goals. For example, the number of successful completors of a training program would be important in an efficiency evaluation, but an effectiveness evaluation would focus instead on the success of program participants in the labor market. Instead of tallying means, the effectiveness evaluation looks directly at ends. That is, evaluations of effectiveness consider the impacts which the programs have on various aspects of participants' lives. For instance, measuring the change in participants' income, mental health, or time spent unemployed due to the program captures the effectiveness of the program.

The fact is that most information systems either are not designed to measure program effectiveness or else measure it poorly. This narrow focus on efficiency rather than effectiveness is curious because the goals of programs are often stated in effectiveness terms. For example, the goals of the CETA program, as quoted above, are stated in effectiveness terms, not efficiency terms.

At the local implementation level, there are, at times, good reasons for only using efficiency evaluations. In programs funded by federal categorical grants, local units are asked to assume that the programs which they administer—but which were designed at the national level—are effective pro-

grams. However, block grant programs, like CETA, are not centrally designed. Administrators can, within fairly broad limits, determine how most programs are to be designed and administered. Thus, these specific programs need to be evaluated in terms of effectiveness at the local level. Although anecdotal evidence exists that many programs are effective, few have been "shown" to be effective. Moreover, those programs which have been shown to be effective apparently do not "travel" well. A good example of such a program is OIC (Opportunities Industrialization Center). This program as implemented by Reverend Leon Sullivan in Philadelphia has almost universally been acclaimed for its effectiveness. OIC attempts to enhance labor market success of participants through a mixture of job training and motivation combined with persuasion of employers to hire program completors. Attempts to transplant this program to other locations, however, have apparently been successful only in a limited number of locations. Thus, the evaluation of program effectiveness is important even when a program has proven itself to be effective in another location.

## The New Methodology

The Human Resources Program of the University of Kansas was asked by Richard Hernandez, CETA Director, to develop for the BOS-CETA program an Impact Evaluation System.

The agency had a number of goals and guidelines which the system was developed to address: 1) The focus of the evaluation system had to be the effect of CETA on the income of participants and the related effect on state expenditures and tax revenues. 2) The system had to be able to follow participants over a prolonged period of time in order to determine long-run impact and also able to generate reports for periods reasonably close to the present. 3) The system had to be practical for Department of Human Resources personnel to use and had to answer questions which they felt were significant. 4) The system had to be inexpensive to operate. 5) The system had to be controlled by BOS so that the confidentiality of individual clients was protected from nonagency persons.

There were basically four categories of information needed to conduct such an effectiveness evaluation, most of which are presently collected

## Considerable controversy surrounds the question of which social programs are failures and which are successes.

by, or accessible to, any agencies operating social programs: 1) demographic, personal, and educational characteristics inventories, 2) pre-program earnings and work history profiles, 3) detailed records of program services received, and 4) post-program earnings and work history profiles. The pre- and post-program histories are obviously necessary to determine whether the client's status was different after the program than before. The detailed history of program services permits one to evaluate whether specific individual services as contrasted with entire programs are associated with certain outcomes. Demographic, personal, and individual characteristics inventories are necessary if one is to determine whether it is the participants' characteristics or the characteristics of the program which are responsible for changes associated with the program.

As discussed earlier, the question which an effectiveness evaluation asks is whether the program made a difference in the lives of its participants, and this question cannot be

answered by the simple methodology of comparing post-program participant earnings with pre-program participant earnings. As time passes while participants are in a program, many factors can alter income, e.g., the changing status of the economy, the aging of the participant, or the entry of new firms into an area.

The separate impact of the program can be found, however, by comparing changes in the incomes of those who went through the program with changes in the incomes of nonparticipants who are statistically identical to the participants. This statistically identical group of nonparticipants functioned as the control group in the new system and was drawn from applicants to the Employment Service who were economically disadvantaged.

### Interpretation of the Results

The effectiveness evaluation system briefly outlined above was used to evaluate two different groups of people. **The results are evidence for the effectiveness of these programs.** The first test compared the performance of

two groups of economically disadvantaged people. The control group of 1,129 received no job training; the other group of 1,384 enrolled in CETA programs to be trained as, for example, machinists, secretaries, typists, waiters and waitresses, and hospital aides. Their training was completed in the third quarter of 1979, and then both groups' earnings were monitored for a year afterwards. The control group's average annual earnings were \$2,798 while the CETA participants' average annual earnings after the CETA training were \$4,558 (see Table 1). Therefore, the CETA participants earned 62.9 percent more than the untrained control group. As well, the average annual earnings for all participants after training were 102.3 percent greater than their average annual earnings prior to participation.

A second test was run comparing the group which finished its CETA training during the fourth quarter of 1980 with another control group. This time, the trained group's income exceeded the untrained group's income by 67.8 percent (see Table 2). However,

**Table 1**  
**CETA Impact Study (1979)**  
**Pre-Post Earnings Levels**

Characteristics		CETA Count	Pre-CETA Average Annual Earnings	Post-CETA Average Annual Earnings	Percent Difference	Control Count	Control Group Average Annual Earnings	Percent Difference Control-Participant
Total		1,384	\$2,253	\$4,558	102.3%	1,129	\$2,798	62.9
Sex	Male	878	2,360	4,577	93.9	528	3,455	32.5
	Female	506	2,067	4,523	118.8	601	2,221	103.6
Age	14-15	0	0	0	—	23	111	—
	16-19	216	1,286	3,314	157.7	159	2,020	64.1
	20-21	236	2,153	4,306	100.0	127	2,796	55.5
	22-44	837	2,484	4,885	96.6	684	3,266	49.6
	45-54	63	2,152	5,479	154.6	85	2,194	149.7
	55 and Over	32	3,667	4,432	20.9	51	1,177	276.5
Education	Student/Dropout	435	1,667	3,398	103.8	442	2,265	50.0
	High School Grad.	805	2,543	4,879	91.9	442	3,268	49.3
	Post High School	344	2,485	5,459	119.7	245	2,913	87.4
Receiving Public Assistance		115	1,599	3,508	119.3	229	2,267	54.7
Economically Disadvantaged		1,336	2,168	4,465	105.9	1,129	2,798	59.6
Race or Ethnic Group	White (not Hispanic)	1,104	2,404	4,842	101.4	937	2,914	66.2
	Black (not Hispanic)	180	1,412	3,002	112.6	102	1,719	74.6
	Hispanic	53	1,842	4,910	166.5	57	3,173	54.7
	Amer. Ind.-Alaskan	36	2,815	2,575	- 8.5	20	1,949	32.1
	Asian or Pac. Island	11	973	6,287	546.0	13	2,582	143.5
Migrant/Seasonal Farm Worker		6	2,293	3,576	55.9	8	—	—
Veteran Group	Veteran	283	3,158	4,856	53.8	183	4,067	19.4
	Vietnam (under 35)	102	3,614	5,696	57.6	43	3,537	61.0
	Special Disabled	24	4,244	5,478	29.1	3	764	617.0
Handicapped		101	3,362	5,212	55.0	106	2,093	149.0
Receiving Unemployment		0	0	0	—	173	4,912	—

control group members in a category before making inferences about program effect.

In the fourth quarter of 1979, there were positive impacts of CETA for all groups, except three: Blacks, American Indians, and the special disabled veterans. Since there were very few control group members for American Indians and the veterans, the negatives there are meaningless. The negative for Blacks occurs with 89 CETA participants and 63 control group members. Certainly, a pressing need exists to examine why this group did not benefit.

Overall, the evaluation of CETA relative to the control group is quite favorable and consistent over time. It is particularly noteworthy that women (103.6 percent, 85.7 percent), Hispanics (54.7 percent, 52.7 percent), and older workers (276.5 percent, 69.1 percent) consistently experienced quite substantial positive earnings impacts.

Tables 3 and 4 are tabulations of pre-post earnings gain by detailed participant characteristic. No control group

data are presented because the record system for the control group contains less data than does the CETA record system. The tables are, thus, most useful for across-group comparisons of relative impact and not for assessment of absolute impact. This means that the negative signs in these two tables should be disregarded.

Of special importance is the magnitude of the percent difference for those receiving AFDC (Aid for Families with Dependent Children): 128.2 percent in 1979 and 14.8 percent in 1980. The five displaced homemakers in 1979 had an earnings reduction of 8.1 percent, but, in 1980, the 62 who participated had a gain of 93.3 percent. AFDC recipients did better than the average, 102.3 percent, in 1979 and worse than the average, 30.5 percent in 1980.

Displaced homemakers had the opposite experience: worse than the average gain in 1979 and better than the average gain in 1980. It behooves the program manager to examine

these volatile program components and determine whether the change in outcome is due to program, participant, or economic climate change.

Table 5 considers CETA cost savings by activity and Table 6 by training *Dictionary of Occupational Titles* (DOT) code. According to Table 5, the state in 7.14 years will receive back through state taxes, sales taxes, and savings the \$106,201 spent on these participants. This means that 14 percent of the CETA direct expenditure was returned in the first year after leaving CETA. The first line of Table 5 shows that CETA's direct cost for 117 participants was \$106,201. The year after CETA training, these individuals earned \$721,755. This amount was \$125,718 more than they earned in the year prior to entering CETA. On this \$125,718, they paid Kansas state income and local sales taxes of \$6,871. The welfare saved column is zero only because no historical welfare payment data were made available. In the year after CETA, they also received \$8,876

**Table 3**  
**CETA Impact Study: More Detailed Analysis (1979)**

Characteristics		CETA Count	Pre-CETA Average Annual Earnings	Post-CETA Average Annual Earnings	Percent Difference
Public	Receiving AFDC	109	\$1,570	\$3,583	128.2%
Assist.	Receiving SSI	8	1,602	1,617	.9
	Total Rec. Pub. Asst.	115	1,599	3,508	119.3
Economic	Under .71 of LLSIL	1,383	2,254	4,556	102.1
Status	.71-.85 of LLSIL	0	0	0	—
	.86-1.00 of LLSIL	0	0	0	—
	Above 1.00 of LLSIL	1	960	7,253	655.5
Economically Disadvantaged		1,336	2,168	4,465	105.9
Family	Single Parent	472	2,723	5,224	91.8
Status	Parent 2 Par. Family	75	2,713	4,914	81.1
	Other Family Member	346	1,644	3,699	124.9
	Non-Dependent Person	491	2,160	4,468	106.8
Race or	White (not Hispanic)	1,104	2,404	4,842	101.4
Ethnic	Black (not Hispanic)	180	1,412	3,002	112.6
Group	Hispanic	53	1,842	4,910	166.5
	Amer. Ind.-Alaskan	36	2,815	2,575	- 8.5
	Asian or Pac. Island	11	973	6,287	546.0
Limited English Speaking		37	1,879	4,377	132.9
Migrant/Seasonal Farm Worker		6	2,293	3,576	55.9
Veteran	Veteran	283	3,158	4,856	53.8
Group	Vietnam (Under 35)	102	3,614	5,696	57.6
	Special Disabled	24	4,244	5,478	29.1
Handicapped		101	3,362	5,212	55.0
Offender		427	1,845	3,775	104.6
Displaced Homemaker		5	2,392	2,199	- 8.1
Labor	In School	77	836	3,745	347.7
Force	Underemployed	56	3,136	5,795	84.7
Status	Unemployed	826	2,550	4,971	94.9
	Other	425	1,816	3,739	105.9
Unemployment Insurance Claimed		236	4,457	5,617	26.0
Unemployed 15 Weeks or More		549	2,090	4,760	127.7

**Table 4**  
**CETA Impact Study: More Detailed Analysis (1980)**

Characteristics		CETA Count	Pre-CETA Average Annual Earnings	Post-CETA Average Annual Earnings	Percent Difference
Public	Receiving AFDC	126	\$2,212	\$2,539	14.8%
Assist.	Receiving SSI	12	2,410	2,129	- 11.7
	Total Rec. Pub. Asst.	161	2,227	2,902	30.3
Economic	Under .71 of LLSIL	769	2,342	3,151	34.6
Status	.71-.85 of LLSIL	11	4,973	4,115	- 17.3
	.86-1.00 of LLSIL	6	1,505	3,944	162.1
	Above 1.00 of LLSIL	25	4,219	3,168	- 24.9
Economically Disadvantaged		797	2,416	3,177	31.5
Family	Single Parent	193	2,541	2,967	16.7
Status	Parent 2 Par. Family	165	3,093	3,940	27.4
	Other Family Member	145	1,347	2,431	80.4
	Non-Dependent Person	308	2,513	3,235	28.7
Race or	White (not Hispanic)	650	2,585	3,455	33.6
Ethnic	Black (not Hispanic)	89	1,878	1,715	- 8.7
Group	Hispanic	37	1,615	2,329	44.2
	Amer. Ind.-Alaskan	22	1,562	1,538	- 1.6
	Asian or Pac. Island	13	2,191	4,108	87.5
Limited English Speaking		13	2,191	4,108	87.5
Migrant/Seasonal Farm Worker		8	3,096	1,578	- 49.0
Veteran	Veteran	144	3,381	4,361	29.0
Group	Vietnam (Under 35)	58	3,867	5,203	60.4
	Special Disabled	5	637	2,530	297.1
Handicapped		74	3,158	4,069	28.8
Offender		162	1,950	1,785	- 8.4
Displaced Homemaker		62	1,787	3,456	93.3
Labor	In School	44	1,146	3,017	163.3
Force	Underemployed	37	2,777	4,252	53.1
Status	Unemployed	560	2,671	3,451	29.2
	Other	170	1,889	2,091	8.6
Unemployment Insurance Claimed		182	4,903	3,533	- 27.9
Unemployed 15 Weeks or More		354	2,434	3,359	38.0

less in unemployment compensation than in the year prior to entering CETA. This reduction in unemployment insurance payments plus the increase in tax receipts totaled \$15,747.

As stated above, these calculations are based on pre-post income comparisons and have the weaknesses discussed earlier. In this context, it appears from Table 5 that every investment the CETA program made was a good one. The best investment was in work experience with the direct investment returned in 1.64 years. The average participant earned enough so that the state treasury was compensated for his/her training cost in 2.86 years.

Table 6 shows that the order of program success has changed. In the bleaker economic climate, on-the-job training and classroom training had the shortest payback periods: 12.5 years, and, even in this depressed era, every single activity had a positive payback. The overall payback was in 16.67 years with an annual investment return of 6.0 percent.

Tables 7(1979) and 8(1980) show these same figures by specific training occupation. Training individuals to be carpenters yielded a negative return in both years: - 20 percent in 1980 and - 1.0 percent in 1979. On the other hand, secretarial training produced a 28 percent return in 1979 and an 8.0 percent return in 1980. By examining relative returns across occupations, program operators should be able to determine where best to focus their efforts.

It is noteworthy that the 1979 and 1980 returns are positive even though welfare savings are omitted. Given the apparent success of WIN (Work Incentive Program) in reducing welfare grants, one would expect the inclusion of welfare savings to make the return from CETA even more dramatic.

### Summary

The ultimate goal of employment and training programs is to improve some dimension of the participants' economic lives. Current systems are

not generally oriented to supplying information which permits managers to assess such program impact. They are, instead, oriented toward the program efficiency measures which are required by federal regulation.

This paper suggests that information systems should be converted into decision-support systems which would permit administrators to make managerial decisions based upon program impact information. Such an evaluation/decision support system has been implemented by the authors which combined existing CETA prime sponsor information with the information maintained by state Job Service and Unemployment Insurance agencies. Through this combination of data systems, a low-cost/decision-support system was developed which the agency itself can maintain.

Once in place, the findings of the evaluation system were very positive in respect to the programs' impact upon both the participants' income and the return-of-cost to the state. On

**If CETA in Kansas is to be viewed as a welfare program, then “welfare” should be interpreted as benefit accruing not only to the participants served by the programs but also to the public (which supports them) in the form of increased revenue from state income and sales taxes, lowered unemployment insurance payouts, and a better trained, more productive labor force.**

average, the two-quarter studies showed that trainees earned approximately 65 percent more than those not trained and that the state’s investment in training costs will be returned in seven years. The inescapable conclusion of the studies’ results is that

CETA programs prove to be sound, cost-effective investments for the state. If they are to be viewed as welfare programs, then “welfare” should be interpreted as benefit accruing not only to the participants served

by the programs but also to the public (which supports them) in the form of increased revenue from state income and sales taxes, lowered unemployment insurance payouts, and a better trained, more productive labor force.

**Table 5  
CETA Impact Study: Cost Savings Comparisons by CETA Activity (1979)**

CETA Activity	Client Count	Total CETA Dollars Spent	Post CETA Earnings	Increase in Spending for Goods & Services	Increase in Tax Revenue & Sales Tax	Welfare Saved	Unemployment Saved	Reduction in Spending + Increased Gov. Income	% Expend. Saved in 1 Year	Years til Exp. Returns
On-the-Job Training	117	\$106,201	\$ 721,755	\$ 125,718	\$ 6,871	\$0	\$ 8,876	\$ 15,747	14.0%	7.14
Public Service Employ.	294	162,901	1,520,284	490,617	25,874	0	46,221	72,095	44.0	2.27
Classroom Training	387	77,310	1,923,203	712,075	36,187	0	3,083	39,270	50.0	2.00
Work Experience	39	5,095	129,527	40,583	2,002	0	1,123	3,125	61.0	1.64
Summer Youth	0	0	0	0	0	0	0	0		
Combined Activities	81	41,287	414,984	221,937	10,801	0	- 2,735	6,066	19.0	5.26
Total Balance of State	918	392,794	4,709,753	1,590,930	81,735	0	56,568	138,303	35.0	2.86

**Table 6  
CETA Impact Study: Cost Savings Comparisons by CETA Activity (1980)**

CETA Activity	Client Count	Total CETA Dollars Spent	Post CETA Earnings	Increase in Spending for Goods & Services	Increase in Tax Revenue & Sales Tax	Welfare Saved	Unemployment Saved	Reduction in Spending + Increased Gov. Income	% Expend. Saved in 1 Year	Years til Exp. Returns
On-the-Job Training	35	\$111,561	\$ 364,912	-\$ 24,252	\$ 353	\$0	\$ 9,415	\$ 9,766	8.0%	12.50
Public Service Employ.	142	331,090	447,536	- 123,130	- 3,374	0	23,953	20,579	6.0	16.67
Classroom Training	219	354,688	738,448	- 34,745	1,144	0	27,923	29,067	8.0	12.50
Work Experience	18	14,846	21,392	- 19,333	- 627	0	- 666	- 1,293	- 8.0	
Summer Youth	0	0	0	0	0	0	0	0	0	
Combined Activities	59	114,997	226,296	29,582	2,077	0	3,530	5,607	4.0	25.00
Total Balance of State	522	927,482	1,798,584	- 171,878	- 427	0	64,155	63,728	6.0	16.57

**Tables 7 and 8 follow on pages 8 and 9.**

**Table 7**  
**CETA Impact Study: Cost Savings Comparisons by Training Occupations (1979)**

Training Occupations DOT	Description	Client Count	Total CETA Dollars Spent	Post CETA Earnings	Increase in Spending for Goods & Services	Increase in Tax Revenue & Sales Tax	Welfare Unemploy- ment Saved	Unemploy- ment Saved	Reduction in Spending + Increased Gov. Income	% Expend. Saved in 1 Year	Years til Exp. Returned
637	Repair-Utilities Service	69	\$ 1,260	\$ 342,390	\$ 87,542	\$ 4,368	\$0	-\$5,068	\$ - 700	- 55.0%	
860	Carpenter	44	2,205	171,099	44,393	2,259	0	- 2,717	- 458	- 20.0	
079	Medical-N.E.C.	43	30,914	318,959	148,074	7,630	0	3,362	10,992	35.0	2.86
620	Repair-Vehicle, Eng. Equip	27	3,092	122,534	35,776	1,839	0	4,732	6,571	212.0	.47
819	Welders, Cutters-N.E.C.	27	3,945	136,255	64,609	3,189	0	1,314	4,503	114.0	.88
279	Sales-Other Com.- N.E.C.	20	0	87,126	39,645	1,910	0	1,190	3,100		
659	Printing-N.E.C.	19	0	77,427	30,816	1,464	0	- 612	852		
720	Occu.-Radio, TV, Phono.	17	0	79,803	30,776	1,661	0	1,456	3,117		
899	Structural Work-N.E.C.	12	7,295	71,259	31,125	1,597	0	- 1,493	104	1.0	100.00
195	Social, Welfare	11	6,365	69,621	26,659	1,350	0	4,946	6,296	98.0	1.02
201	Secretary	11	5,791	65,052	37,149	1,802	0	- 172	1,630	28.0	3.57
332	Hairdresser, Cosmetol- ogist	11	8,940	39,446	8,136	447	0	- 250	197	2.0	50.00
381	Porter, Cleaner	10	1,336	70,276	42,208	2,119	0	- 1,789	380	28.0	3.57
869	Construction Occu.- N.E.C.	9	6,797	40,131	18,373	879	0	1,097	1,976	29.0	3.45
929	Package. Mat. Hand.-N.E.C.	9	4,281	56,961	30,462	1,525	0	463	1,988	46.0	2.17
166	Personnel Administration	8	5,785	68,235	42,088	2,088	0	2,642	4,730	81.0	1.23
804	Tinsmith, Coppersmith	8	9,423	52,448	20,359	1,092	0	- 744	348	3.0	33.33
205	Clerk-Interviewer	7	5,022	52,111	20,494	964	0	7,884	8,848	176.0	.57
209	Steno, Typing, File- N.E.C.	7	1,444	28,593	15,627	750	0	- 1,235	- 485	- 33.0	
099	Educ.-N.E.C.	6	4,896	43,307	28,142	1,379	0	2,522	3,901	79.0	1.21
187	Mgr.-Services	6	3,568	39,061	19,220	893	0	1,781	2,674	74.0	1.35
311	Waiter, Waitress	6	697	7,918	- 7,192	- 288	0	0	- 288	- 41.0	
600	Machinist	6	1,640	52,679	4,640	226	0	0	226	13.0	7.69
045	Occu.-Psychology	4	4,045	27,936	20,574	1,045	0	- 1,520	- 475	- 11.0	
203	Typist	4	2,728	30,086	15,379	861	0	0	861	31.0	3.23
210	Bookkeeper	4	1,880	24,748	9,724	510	0	478	988	52.0	1.92
249	Misc. Clerical-N.E.C.	4	1,092	13,407	4,717	195	0	104	299	27.0	3.70
372	Security, Correction Card	4	4,087	15,845	3,937	183	0	0	183	4.0	25.00
807	Body Worker-Trans. Equip.	4	2,290	26,638	13,524	703	0	420	1,123	49.0	2.04
905	Truck Driver-Heavy Other DOTs	121	2,256 66,573	20,633 777,745	- 3,473 384,397	- 220 19,262	0	- 248 18,862	- 468 38,124	- 20.0 57.0	1.75
	Total Balance of State	542	199,647	3,029,729	1,267,900	63,682	0	37,455	101,187	50.0	2.00



**Table 8**  
**CETA Impact Study: Cost Savings Comparisons by Training Occupations (1980)**

Training Occupations DOT	Description	Client Count	Total CETA Dollars Spent	Post CETA Earnings	Increase in Spending for Goods & Services	Increase in Welfare Tax Revenue & Sales Tax	Unemploy- ment Saved	Reduction in Spending + Increased Gov. Income	% Expend. Saved in 1 Year	Years til Exp. Returned	
201	Secretary	19	\$ 50,324	\$ 84,628	\$ 11,392	\$ 866	\$0	\$ 3,344	\$ 4,210	8.0%	12.50
869	Construction Occu.- N.E.C.	15	26,968	92,136	42,886	2,259	0	942	3,201	11.0	9.09
079	Medical-N.E.C.	12	68,468	78,382	36,739	1,952	0	0	1,952	2.0	50.00
860	Carpenter	12	18,063	29,532	- 22,379	- 974	0	661	- 313	- 1.0	
313	Chef, Cook	11	3,257	33,756	- 3,412	- 150	0	738	588	18.0	5.56
209	Steno, Typing, File- N.E.C.	9	17,496	31,344	- 7,029	- 200	0	1,162	962	5.0	20.00
819	Welders, Cutters-N.E.C.	8	2,683	26,528	8,641	506	0	0	506	18.0	5.56
905	Truck Driver-Heavy	8	12,208	6,240	- 17,808	- 772	0	1,350	678	4.0	25.00
203	Typist	7	15,898	47,276	21,749	1,067	0	2,715	3,782	23.0	4.35
620	Repair-Vehicle, Eng. Equip.	7	22,952	24,940	115	235	0	- 692	- 457	- 1.0	
637	Repair-Utilities Service	7	4,028	35,236	- 1,621	- 24	0	64	40	.0	.00
929	Package. Mat. Hand. -N.E.C.	7	14,410	39,136	9,444	515	0	2,810	3,325	23.0	4.35
210	Bookkeeper	6	21,737	17,360	- 49,892	- 2,447	0	1,156	- 1,291	- 5.0	
355	Hospital, Morgue Attend.	5	2,186	2,356	- 12,177	- 480	0	- 10	- 490	- 22.0	
899	Structural Work-N.E.C.	5	16,619	10,980	- 11,736	- 480	0	2,892	2,412	14.0	7.14
195	Social, Welfare	4	11,807	12,432	- 2,722	- 53	0	2,230	2,177	18.0	5.56
279	Sales-Other Com.-N.E.C.	4	2,550	1,940	- 3,446	- 129	0	0	- 129	- 5.0	
332	Hairdresser, Cosmetol- ogist	4	25,271	17,576	6,637	375	0	0	375	1.0	100.00
211	Cashier, Teller	3	3,487	23,436	16,405	795	0	560	1,355	38.0	2.63
219	Computer, Acctg.-N.E.C.	3	8,483	20,452	- 3,953	- 243	0	3,642	3,399	40.0	2.50
222	Clerk-Ship, Rec., Stock	3	167	17,504	11,022	650	0	1,052	1,702	1019.0	.10
318	Kitchen Worker	3	3,343	6,276	1,846	80	0	420	500	14.0	7.14
382	Janitor	3	0	4,884	- 15,228	- 735	0	0	- 735		
410	Domestic Animal Farming	3	8,274	11,468	1,543	167	0	2,051	2,218	26.0	3.85
807	Body Worker-Trans. Equip.	3	9,716	19,340	7,745	461	0	1,072	1,533	15.0	6.67
075	Registered Nurse	2	17,258	23,944	14,218	768	0	0	768	4.0	25.00
180	Administrative-N.E.C.	2	7,820	7,376	- 1,441	- 26	0	0			.00
215	Clerk-Payroll, Timekeeper	2	5,556	13,588	4,861	245	0	860	1,105	19.0	5.26
237	Clerk-Info. Reception	2	8,500	14,532	12,079	564	0	100	664	7.0	14.29
239	Info. Message-N.E.C.	2	5,147	4,908	- 2,838	- 107	0	1,632	1,525	29.0	3.45
	Other DOTs	77	173,763	355,908	74,196	5,018	0	10,463	15,481	8.0	12.50
	Total Balance of State	258	588,459	1,115,396	125,836	9,703	0	41,214	50,917	8.0	12.50