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PREVENTING CRIME BY EMPOWERING YOUNG CHILDREN: THE HIGH/SCOPE PERRY PRESCHOOL STUDY THROUGH AGE 27

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The High/Scope Perry Preschool study through age 27 (Schweinhart, Barnes, & Weikart, with Barnett & Epstein, 1993) has revealed that **high-quality, active learning programs for young children living in poverty cut in half participants' crime rate through age 27**. In addition, these programs significantly increase participants' earnings and property wealth as adults and return to taxpayers $7.16 for every dollar they invested.

Methodology

The High/Scope Perry Preschool study used an experimental design to reveal program effects, even decades after the program. To conduct this study, project staff

- ✓ identified 123 young African-American children living in poverty and at risk of school failure
- ✓ randomly assigned them to either a program group or a no-program group
- ✓ provided the program group at ages 3 and 4 with a high-quality, active learning program operated by teachers trained in early childhood education
- ✓ collected data on both groups annually from ages 3 through 11 and at ages 14, 15, 19, and 27
- ✓ after each phase of data collection, analyzed the data and wrote reports of the study

The High/Scope Perry Preschool study has followed the lives of 123 persons who originally lived in the attendance area of the Ypsilanti (Michigan) school district's Perry Elementary School, a predominantly black neighborhood on the south side of town. The study was conducted in Ypsilanti because David Weikart, the principal investigator, was then a doctoral candidate at the University of Michigan in Ann Arbor as well as the director of special education services for the Ypsilanti school district. The Perry School was the site of the study because of its high rates of poverty and school failure and because Eugene Beatty, the school's principal, was willing to support the effort.

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Project staff identified children for the study from (a) a census of the families of students then attending Perry School, (b) referrals by neighborhood groups, and (c) door-to-door canvassing. They selected families of low socioeconomic status and children with low intellectual performance at study entry who showed no evidence of organic handicap. **Self-selection had virtually no role in selection of study participants** since only three families with children identified for the study refused to participate in it.

The scientific strength of this study, its ability to assess preschool program effects even many years later, is due primarily to an experimental design in which study participants were **randomly** assigned to one of two groups: a "program group" enrolled in the preschool program or a "no-program group" not enrolled in any preschool program. Neither parents, teachers, nor the psychologists testing the children had any influence over children's group assignments, so there is no reason to think that there were group differences in children's or parents' abilities or dispositions before the preschool program began.

The High/Scope Perry Preschool study used randomizing techniques at several steps in the assignment of study participants to groups. After the fall survey in each year from 1962 to 1965, project staff assigned children in the wave entering the study to program and no-program groups as follows:

(1) They assigned pairs of study participants matched on initial Stanford-Binet intellectual performance scores to either of two undesignated groups.
(2) They exchanged several pair members so that the groups were matched on mean socioeconomic status, mean intellectual performance, and percentages of boys and girls.
(3) By flipping a coin, they randomly assigned one group to the program condition and the other to the no-program condition.
(4) They assigned younger siblings to the same group as their older siblings, to prevent the preschool program from affecting siblings in the no-program group.
(5) Fearing overall sample attrition, staff transferred from the program group to the no-program group several children with single mothers employed away from home who could not participate in the program's classes or home visits.

Teachers in the program conducted daily 2½-hour classes for children on weekday mornings and made weekly 1½-hour home visits to each mother and child on weekday afternoons. The 30-week school year began in mid-October and ended in May. Of the 58 children in the program group, the 13 in the oldest class (Wave Zero) participated in the program for one school year at age 4 and the 45 in younger classes (Waves One to Four) participated in the program for two school years at ages 3 and 4. Successive classes (that is to say, Waves Zero and One, One and Two, Two and Three, and Three and Four) attended

the program together, the older class at age 4 and the younger class at age 3. In 1966-67, the final year of the program, 11 3-year-olds who were not included in the longitudinal sample joined the 12 4-year-olds in Wave Four. Thus, the 4 teachers in the program served 20 to 25 children each school year, a child-teacher ratio of 5.00 to 6.25 children per teacher. This ratio was set to accommodate the demands not of the classroom but of the weekly home visits. Between 1962 and 1967, 10 teachers certified to teach in elementary, early childhood, and special education served in the program's 4 teaching positions.

The High/Scope early childhood educational approach, used in the Perry Preschool classroom and home visits, was and is an open framework of educational ideas and practices based on the natural development of young children. Drawing on the child development ideas of Jean Piaget, it emphasizes the idea that children are **active learners**, who learn best from activities that they themselves plan, carry out, and review afterwards. Adults observe, support, and extend the children's play as appropriate. Adults arrange interest areas in the learning environment; maintain a daily routine that permits children to plan, carry out, and review their own activities; and join in children's activities, asking appropriate questions that extend their plans and help them think about their activities. Using key experiences derived from child development theory as a framework, adults encourage children to engage in play activities through which they learn to make choices, solve problems, and otherwise engage in activities that contribute to their intellectual, social, and physical development.

Findings

As shown in Figure 1, the High/Scope Perry study shows that a high-quality, active learning program for young children living in poverty

- ✓ helps prevent crime
- ✓ improves educational performance
- ✓ contributes to economic development
- ✓ strengthens commitment to marriage
- ✓ provides a high return on taxpayer investment

Regarding **crime prevention**, Table 1 indicates that, according to police and court records, program group members averaged significantly[2] fewer arrests than did no-

[2]This chapter describes a group difference as **significant** if it has a two-tailed probability of less than .05, as **nearly significant** if it has a two-tailed probability between .05 and .10, and as **noticeable** if it has a two-tailed probability between .10 and .25. Since the hypotheses of this study are clearly directional, readers who prefer one-tailed tests of significance may interpret "nearly significant" findings as significant.

program group members. In addition, only 7% of the program group had been arrested five or more times as compared to 35% of the no-program group; and only 12% of the program males had been arrested five or more times as compared to 49% of the no-program males, one fourth as many. Table 1 also shows that, compared to the no-program group, the program group had

- ✓ significantly fewer arrested for drug dealing
- ✓ significantly fewer arrests as adults
- ✓ significantly fewer adult misdemeanors
- ✓ nearly significantly fewer property crimes
- ✓ noticeably fewer arrests as juveniles
- ✓ noticeably fewer personal-violence crimes
- ✓ noticeably fewer adult felony arrests

--- Insert Table 1 about here ---

Similarly, in the Syracuse University Family Development Research Program (Lally, Mangione, & Honig, 1988), a study of the effects of a program of high-quality day care and weekly home visits, significantly fewer program group than no-program group members had been placed on probation for delinquent offenses as teens (6% vs. 22%).

In **educational performance** by age 27, the program group had completed a significantly higher level of schooling than did the no-program group; 71% of the program group, but only 54% of the no-program group, graduated from either regular or adult high school or received equivalent certification. As compared to no-program females, program females had a significantly higher rate of high school graduation or the equivalent (84% vs. 35%).

Previous findings for educational performance indicated that the program group spent fewer than half as many years in programs for educable mental impairment as the no-program group (group means of 1.1 years vs. 2.8 years). On tests of educational performance, the program group significantly outscored the no-program group on

- ✓ a test of general literacy at age 19 and on parts of this test at age 27
- ✓ a school achievement test given at age 14 and its reading, language, and arithmetic subtests
- ✓ several intellectual and language tests given from after the first preschool year up to age 7 but not afterwards

This fade-out of gains in intellectual performance found for the High/Scope Perry program was also found for some Head Start programs (McKey et al., 1985); and yet, the High/Scope Perry program participants went on to achieve dramatic, real-life outcomes.

Regarding **economic development**, 29% of the program group reported monthly earnings at age 27 of $2,000 or more, significantly more than the 7% of the no-program group who reported such earnings. For males, the difference was better-paying jobs: 42% of program males as compared to only 6% of no-program males reported monthly earnings of $2,000 or more. For females, the difference was in employment rates: 80% of program females but only 55% of no-program females were employed at the time of the age-27 interview. Significantly more of the program group than the no-program group owned their own homes (36% vs. 13%) and owned second cars (30% vs. 13%). According to social services records and interviews at age 27, only 59% of the program group as compared to 80% of the no-program group received welfare assistance or other social services as adults.

Regarding **commitment to marriage**, although the same percentages of program males and no-program males were married (26%), the married program males were married an average of 6.2 years, but the married no-program males were married an average of only 3.3 years; 40% of program females, but only 8% of no-program females, were married at age 27. While 57% of the births to program females were out-of-wedlock, 83% of the births to no-program females were out-of-wedlock.

Return on investment was calculated in a benefit-cost analysis, conducted by W. Steven Barnett of Rutgers University, that involved the estimation of the monetary value of the program and its effects, in constant 1992 dollars discounted annually at 3%. Although the analysis included economic benefits to program participants, we present here only the economic benefits to the public, as taxpayers and as potential crime victims. The average annual cost of the program was $7,252 per participant; 45 of the program participants attended for two years and 13 attended for one year. Thus, the discounted, weighted average cost of the program, used in the cost-benefit analysis, was $12,356 per participant.

As shown in Figure 2, the average amount of economic benefits was $88,433 per participant, from the following sources:

- ✓ savings in schooling, due primarily to reduced need for special education services, and despite increased college costs for preschool-program participants
- ✓ the higher taxes paid by preschool-program participants because they had higher earnings
- ✓ savings in welfare assistance
- ✓ savings to the criminal justice system
- ✓ savings to the potential victims of crimes never committed, based on in-court and out-of-court settlements for such crimes

The $88,433 in benefits is 7.16 times as large as the $12,356 in cost per participant, so the benefit-cost ratio amounted to $7.16 returned to the public for every dollar invested in the

High/Scope Perry program. Thus, the program was an extremely good economic investment, comparing favorably with alternative public uses of society's resources and even with private-sector investments.

Comparisons with Similar Current Programs

The High/Scope Perry Preschool study shows what early childhood programs can achieve if they are done right. The High/Scope Perry program was developed as a model program of early childhood education with substantial outreach to parents, meant to be imitated and adapted in the context of local circumstances. Most preschool programs for children living in poverty today are service programs which include not only a measure of outreach to parents, but also meals and health care for children and social services for families.

A year of the High/Scope Perry program cost $7,252 per child, in 1992 dollars. But this model program was an experimental prototype, not designed for cost efficiency. Run as a service program, it could have been just as effective with 8 children per teacher rather than the 5-6 that it had, bringing the cost down to $5,000 per child. A year in the Head Start program in the U.S. in 1992 cost $4,100 per child. Run at the recommended level of quality, it would cost at least $5,500 per child, with the extra $500 allotted to meals, health care, and social services. Full-day Head Start programs would cost even more per child.

Program Quality: The Key to Significant Benefits

This study and similar studies suggest that high-quality programs for young children produce significant long-term benefits because they

- ✓ empower children by encouraging them to initiate and carry out their own learning activities
- ✓ empower parents by involving them as full partners with teachers in supporting their children's development
- ✓ empower teachers by providing them with systematic inservice curriculum training and supportive curriculum supervision

Empowering children. The National Association for the Education of Young Children has defined standards for developmentally appropriate practice that form a basis for educational quality (Bredekamp, 1987). The idea that young children are active learners who can initiate their own learning activities and function as active learners rather than mere passive recipients of information from others is central to this definition. Such active learning empowers children to assume a measure of control over their environment and to

develop the conviction that they have some control over their lives. At the same time, they are learning how to solve their everyday intellectual, social, and physical problems. Erikson (1950) pointed out that preschoolers are developing a sense of initiative, responsibility, and independence. But they do so as byproducts of their active learning experiences, not by memorizing artificial slogans about their self-worth that are not based on their actual social experience.

In the High/Scope Curriculum (Hohmann, Banet, & Weikart, 1979; Hohmann & Weikart, in press) that was developed during the High/Scope Perry program, children plan their own learning activities, carry out these activities in a materials-rich environment, and report on their experiences afterwards. This plan-do-review process helped children in the Perry program develop their abilities and sense of control over their environment. Through home visits, the parents too came to see their children as active learners.

The High/Scope Preschool Curriculum Comparison study (Schweinhart, Weikart, & Larner, 1986) helped identify the lasting value of developmentally appropriate practices and child-initiated learning activities. The study compared the effects of three approaches to early childhood education. Two of them, the High/Scope approach and the traditional nursery-school approach, supported child-initiated learning activities; the other, the Direct Instruction approach, encouraged children to respond to fast-paced, scripted questions from the teacher. While the intellectual performance of all three groups improved substantially, the members of the High/Scope and nursery-school groups at age 15 reported engaging in half as many delinquent acts, including one fifth as many property offenses, as the members of the Direct Instruction group. It appears that the programs that emphasized child-initiated learning activities improved children's social responsibility considerably more than did the Direct Instruction program.

Empowering parents. The High/Scope Perry Preschool program included weekly home visits by the teachers to the parents, as well as regular group meetings. Each home visit lasted about an hour and a half and involved the child as well as the mother or father in discussion and modeling of the child's activities in the classroom. The initial goal each year was to establish rapport with parents new to the program. Rather than trying to meet all the family's needs, the home visitor's focus was on the child and the parent-child relationship. The parents came to see their children as active learners who were quite capable of learning. The parent component of the program empowered the parents to support their children's development and to support their children's sense of control.

Several obstacles often stand in the way of the teaching staff developing close working relationships with children's parents. Ironically, one obstacle can be the extent of

teacher contact time with children. Teachers need adequate time when they are not in contact with children so that they can engage in home visits or other activities with parents and so that they can plan their activities with children and with parents. Another obstacle to home visits can be the lack of safety in some communities due to the prevalence of criminal violence and drug abuse. Early childhood program staff cannot surmount this obstacle alone, although they may reduce some of their anxieties by developing rapport with parents. Another obstacle is the lack of availability of parents because they are otherwise occupied. Teachers need to help parents become involved by strategies such as providing scheduling alternatives and having child care provided during group meetings. The underlying obstacle is the mutual reluctance of teachers to work with parents and parents to work with teachers.

Empowering teachers. In order for teachers to engage in the practices that empower children and parents, they need to be empowered themselves through systematic inservice curriculum training and supportive curriculum supervision. According to the U.S. High/Scope Training of Trainers evaluation (Epstein, 1993), systematic inservice curriculum training is most successful in promoting program quality when an agency has a supportive administration that includes a trained curriculum specialist on staff who provides teachers with hands-on workshops, observation and feedback, and follow-up sessions. Effective trainers focus on a coherent, validated, developmentally appropriate curriculum model, whether it be the High/Scope Curriculum or another curriculum model. The Training of Trainers evaluation found that each certified High/Scope trainer worked with an average of 25 teachers and assistant teachers in 13 classrooms; and that the teachers they trained scored significantly better than comparable teachers without such training not only in their understanding of the High/Scope Curriculum, but also in their actual implementation of the approach. The evaluation also found that children in the High/Scope classrooms scored significantly higher than children in comparison classrooms in initiative, social relations, music and movement, and overall development. These findings indicate that staff training in the High/Scope Curriculum significantly improves the effectiveness of early childhood programs that have already achieved a high degree of quality in other ways.

Inservice training for early childhood teachers, no less than public policy development, needs to be backed by public support of evaluation, research, and product development. The High/Scope Perry Preschool study provides extraordinary testimony to the lasting effects of high-quality programs for young children, but it cannot stand alone. We need to know more about the mediating factors between early childhood programs and their long-term effects so that we can assess short-term program effects known to predict long-term effects. Using these short-term effects as criteria, we need to know how far we can stretch the definition of program quality before effectiveness is sacrificed. How many

children should each adult be responsible for? How much time must be allotted for planning and activities with parents? What staff qualifications and compensation are essential to program quality? How much and what kind of inservice training must be provided? What curriculum models can be used effectively?

Preventing Crime by Empowering Children

The empowerment of parents and teachers has as its goal the empowerment of children as active learners who are able and motivated to make decisions and solve problems. Evidence of this transformation of children from passive learners to active learners and concomitant improvement in their self-confidence appears in a causal analysis of the data from the High/Scope Perry Preschool study. This analysis traced causes and effects from preschool experience:

- ✓ to early childhood intellectual performance
- ✓ to motivation in elementary school
- ✓ to years spent in programs for mental impairment
- ✓ to early adult literacy and the highest year of schooling
- ✓ to adult earnings and fewer lifetime arrests

Temporal sequences are elusive with psychological variables. The fact that a psychological variable, like motivation, was first **measured** in elementary school does not necessarily mean that it was first **affected** during elementary school. Indeed, motivation was probably improved directly by the preschool program, although it could not be reliably measured until later. On the other hand, the preschool program appears to have improved general intellectual performance only during early childhood and not permanently; or perhaps the tests used were not sensitive to the actual permanent changes in children's intellectual performance. In either case, children's improvements in intellectual performance and motivation enabled them to do better in school—in the short run, to achieve better school placements, in regular classes rather than in classes for mental impairment and, in the long run, to achieve higher levels of literacy and schooling. Their greater school success, then, led them to achieve higher adult earnings and fewer lifetime arrests.

Life in school may be seen as a precursor of adult life in the community. In school, children adopt one of three roles with respect to normative behavior—good, bored, or misbehaving (Kounin & Gump, 1974). While these terms may categorize brief segments of behavior, they may also be used to characterize student roles in general. Further, they resemble the adult roles of productive citizen, welfare recipient, and criminal. Habits begun in school become adult habits as well. Personal misconduct rated by teachers at ages 6-9

was positively associated with lifetime arrests and negatively associated with highest year of schooling.

As much as these High/Scope Perry Preschool study findings support the extraordinary value of high-quality preschool programs in breaking the cycle of poverty and crime, such programs are only part of the solution. To address the problems of poverty, welfare dependence, crime and drug abuse, and unemployment, governments must also employ a range of other social policy strategies. Affordable housing, universal access to health care, effective job-training programs, reduction of institutional racism, and improved educational opportunities at all levels are essential. High-quality active learning early childhood education should be part of a multifaceted effort to solve national social problems; it is far from the only solution. Its role should be neither overrated nor underrated.

The High/Scope Educational Research Foundation

The High/Scope Perry Preschool Project, which operated from 1962 to 1967 in the Ypsilanti (Michigan) Public Schools, is the forerunner of the High/Scope Educational Research Foundation—an independent, non-profit organization founded by David P. Weikart in 1970. The High/Scope Foundation conducts research on the development of children and youth, evaluates programs, and develops and disseminates materials and provides training in the High/Scope educational approach for young people from infancy through adolescence. The High/Scope Press provides publications and audiovisual materials on the Foundation's research and educational approach. Together with other research documenting the lasting value of high-quality programs for young children living in poverty, the High/Scope Perry Preschool study has served as a major rationale for the expansion and emphasis on quality of U.S. Head Start programs and similar programs in various states and provinces. In addition, the High/Scope Foundation has developed the High/Scope Child Observation Record for Ages 2½-6 and serves as the national sponsor and international coordinator for the 15-nation Preprimary Project of the International Association for the Evaluation of Educational Achievement (IEA).

The High/Scope educational approach has continued to develop since the Perry Preschool Program ended (Hohmann, Banet, & Weikart, 1979; Hohmann & Weikart, 1993) and has been widely accepted. Today, the High/Scope Foundation maintains a Registry of some 1,200 certified High/Scope trainers throughout the U.S., in Canada, and in 10 other countries, who have successfully completed a seven-week Training of Trainers course on the High/Scope educational approach. These trainers have trained an estimated 28,500 teachers and assistant teachers serving over a quarter-million children annually (Epstein. 1993).

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Table 1. Percent arrested and mean number of arrests by group

	Percent Arrested		Mean Number of arrests		
Type of arrest	Program	No-Program	Program	No-Program	Significance[a]
Juvenile and adult	57	69	2.3	4.6	Significant
Juvenile	15	26	0.5	0.6	Noticeable
Adult	48	57	1.8	4.0	Significant
Drug dealing	7	25	0.2	0.4	Significant
Personal violence	22	32	0.4	1.1	Noticeable
Property	26	35	0.6	1.3	Nearly significant
Adult felony	27	36	0.7	1.5	Noticeable
Adult misdemeanor	43	52	1.2	2.5	Significant

[a]Based on Mantel-Haenszel chi-square statistics for ordered categories, a group difference is described as **significant** if it has a two-tailed probability of less than .05 , **nearly significant** if it has a two-tailed probability between .05 and .10, and **noticeable** if it has a two-tailed probability between .10 and .25. Since the hypotheses of this study are clearly directional, readers who prefer one-tailed tests of significance may interpret "nearly significant" findings as significant.

Figure 1

High/Scope Perry Preschool Project
Major Findings at Age 27

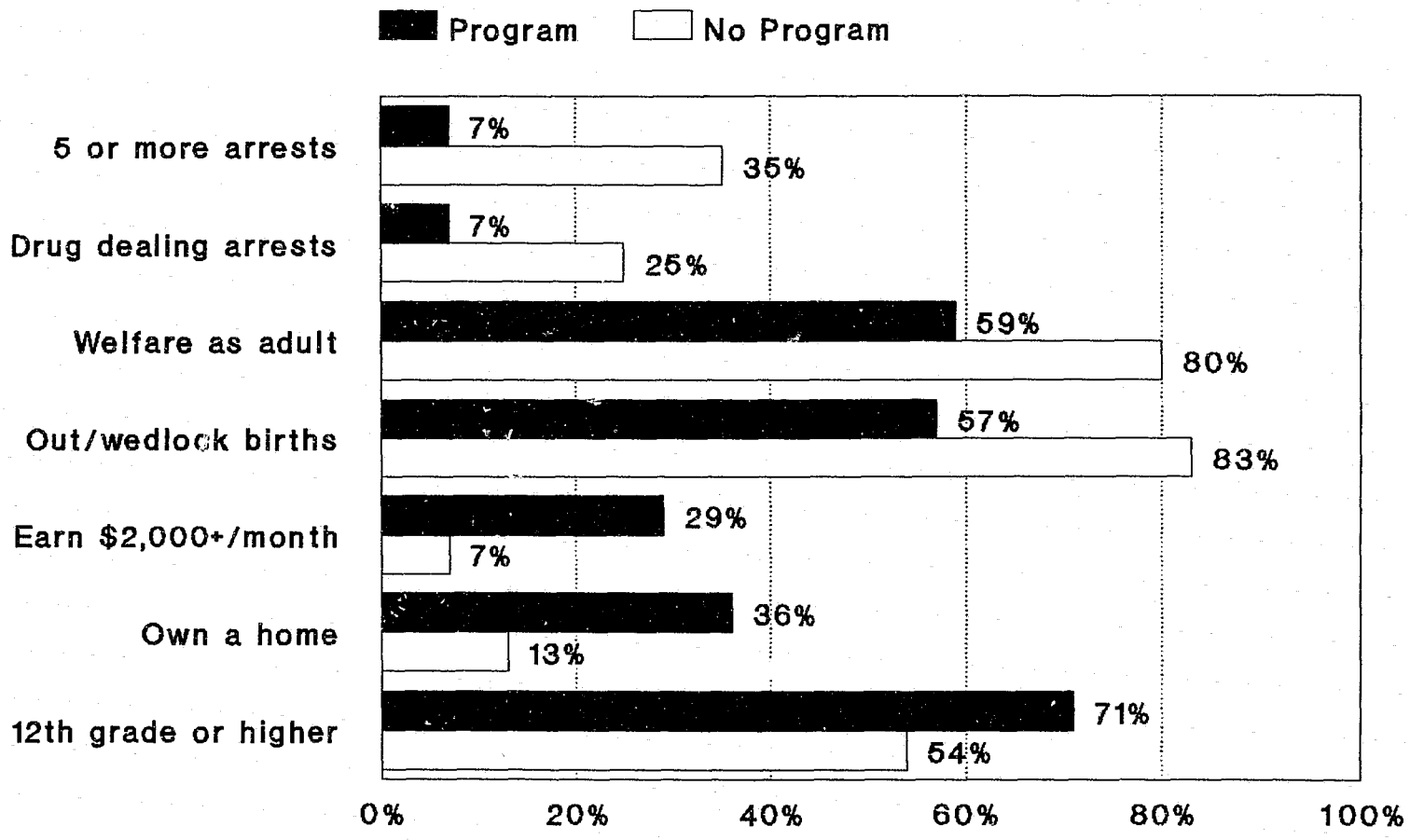
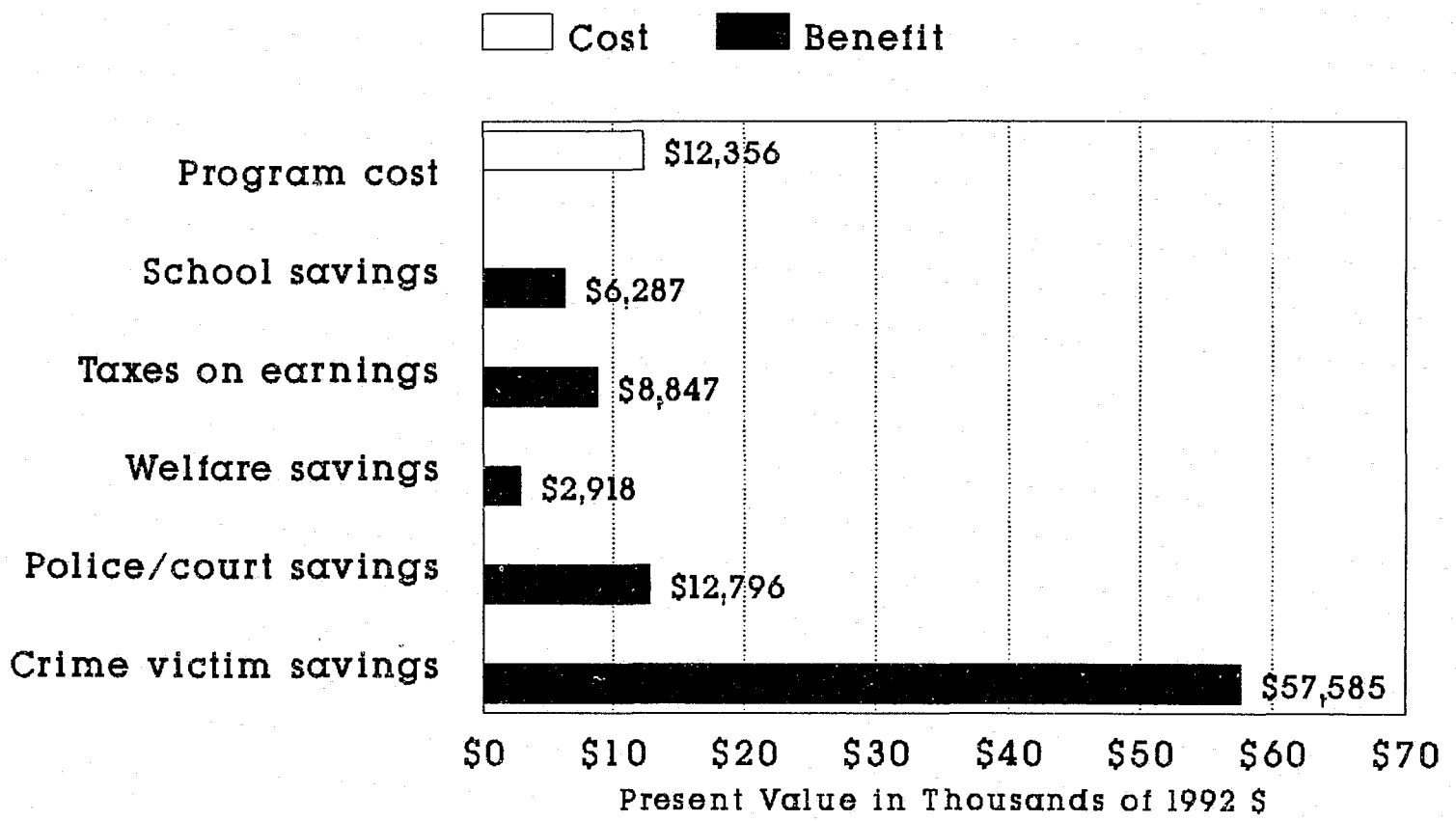


Figure 2

Public Costs and Benefits per Participant



Total public benefits = $88,433
$7.16 returned per dollar invested