

# Viable Options: Intensive Supervision Programs for Juvenile Delinquents

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*The Wayne County Juvenile Court in Detroit, Michigan, recently developed and evaluated three in-home, intensive supervision programs as alternatives to commitment for adjudicated delinquents. More than 500 youths were randomly assigned to either intensive supervision or a control group that was committed to the state for placement. The evaluation found the in-home programs to be as effective as commitment for about one-third the cost. Two years after random assignment, the experimental and control group cases showed few differences in recidivism, either in official charges or by self-report. The study suggests that in-home programs are a viable option for many youths who would otherwise be committed.*

## INTRODUCTION

In the past 30 years, a number of studies have explored the relative effectiveness of community-based correctional alternatives for juvenile offenders (Austin, Krisberg, and Joe, 1987; Empey and Erickson, 1972; Empey and Lubeck, 1971; Kobrin and Klein, 1983; Murray and Cox, 1979; Ohlin, Miller, and Coates, 1977; Palmer, 1974; Weeks, 1958). The results of this research have been occasionally encouraging but often discouraging or inconclusive. Many studies have been criticized for using poor research designs, others for badly operationalizing important variables or misinterpreting results (see especially Lerman, 1975 on Palmer, 1974; Maltz et al., 1980 on Murray and Cox, 1979).

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More recent studies have provided at least suggestive evidence for the effectiveness of particular rehabilitation programs and intermediate sanctions such as intensive probation supervision, offender tracking, home detention, electronic monitoring, adventure programs, and vocational training (see Gendreau and Ross, 1987; Greenwood, 1986; Greenwood and Zimring, 1985; McCarthy, 1987; Petersilia, 1987). Yet, pervasive dissension among researchers has combined with remnants of the "nothing works" scare of the 1970s to forestall needed developments in juvenile corrections. With few exceptions, state policymakers seem to be pursuing incarceration-based criminal justice strategies as if no viable alternatives existed.

This article presents the major findings from a five-year evaluation of three home-based, intensive supervision programs for adjudicated delinquents in Wayne County, Michigan, a large, urban county that includes the city of Detroit. The evaluation employed a randomized design with a two-year follow-up period to compare youths assigned to the in-home programs with a control group of youths who were committed to the state. The study results have important implications for juvenile justice practitioners and policymakers grappling with the task of deploying scarce program resources.

### *Background of the Study*

Short of transferring a juvenile to adult court, the most severe disposition available to Michigan juvenile courts is commitment to the state Department of Social Services (DSS) for supervision and placement. Once committed to DSS, the great majority of juvenile offenders are placed in training schools or comparable private institutions at considerable cost to taxpayers. In 1982, more than 700 youths were committed to the state by the Wayne County Juvenile Court, reflecting a higher per capita rate than that of any other Michigan county.

In response to a growing rate of commitments, the state limited the number of Wayne County juveniles it would accept to 500 per year as of 1983. The county, in turn, implemented three experimental programs designed to provide alternative services to some of the youths who otherwise would have been committed. While they differed somewhat in philosophical orientation, all three programs provided intensive probation services using small case-loads and frequent worker-client contact. One of the in-home programs, the Intensive Probation Unit (IPU), was operated by the juvenile court. The other two were run by private agencies under contract to the court—the Comprehensive Youth Training and Community Involvement Program (CYTCIP) and Michigan Human Services, Inc. (MHS).<sup>1</sup>

Implementation of the in-home programs included an evaluation to determine whether they were cost-effective alternatives to state commitment. Although effectiveness can be defined in various ways, the Wayne County evaluation focused on the programs' ability to contain or reduce delinquent behavior to the extent that their clients could remain in the community instead of being placed in correctional institutions. The goal of the evaluation was to weigh the programs' success in this endeavor against the costs associated with the alternative, i.e., commitment to the state.

### *THE EVALUATION*

The study randomly assigned equivalent groups of youths to each program and the control group. Between February 1, 1983 and March 5, 1985, every youth recommended by the juvenile court for commitment to the state was screened for program eligibility. Juveniles charged with very violent offenses, those with a documented history of psychiatric disturbance, and those with no potential home in the community (e.g., neglect wards) were automatically excluded from the study. Because very few females had been considered for commitment, the evaluation study was limited to males.

A total of 511 juveniles (about 40% of those screened) met the eligibility criteria and were randomly assigned to the evaluation. The three programs received 326 youths, while 185 state wards comprised the control group. Those assigned to the in-home programs had their commitment orders rescinded but remained wards of the court on probationary status. The control group youths were committed to DSS as they would have been prior to the introduction of the programs and the evaluation.

Strictly speaking, this study does not purport to test the intensive supervision programs as an alternative to incarceration per se, but rather as an alternative to commitment to the state. Committed youths were subject to a variety of placement options, including in-home supervision by DSS workers, shelter and group home placement, camps, and large public or private institutions. About 80% of committed youths from Wayne County, however, were placed out of the home, and about 90% of these were placed in large institutions.

Most of the study youths were black (68.7%) and from single-parent households (67.2%) in which no adult was employed (58.3%). Most were Detroit residents (76.3%), with the remainder living in suburban areas and outer Wayne County. Their average age at entry was 15.4 years old; only about a third were 16 or older. Most (68.9%) had been on regular probation before their most recent court appearance. They averaged 3.2 prior charges;

many (23.5%) had five or more priors. About 9% had no prior charges. The majority (78.1%) entered the study as a result of a criminal charge, and for about half (51.3%) that charge could be considered quite serious (i.e., larceny, breaking and entering, auto theft, burglary, assault). Thus, the juveniles in the study sample were relatively serious and chronic, though not highly violent, offenders.

Each youth was followed for two years after randomization. The evaluation gathered data from several sources. The youths and their parents were interviewed on two or three occasions, depending on program assignment. An initial interview was conducted as soon as possible after assignment to the programs, an exit interview was completed upon a youth's termination from an in-home program, and a follow-up interview was scheduled for two years after random assignment. Control group cases received only the initial and follow-up interviews.<sup>2</sup> Demographic data and official offense data (e.g., most recent offense, prior offenses, recidivism) were obtained from juvenile court records examined upon assignment and again periodically throughout the two-year period. These data were supplemented by a check of adult court records for youths who came under the jurisdiction of the adult system during the two-year study period.

Records of the frequency and nature of contacts between the program staff and the youths were obtained from case files maintained by each youth's primary worker. These data were used to assess the quantity and quality of program effort. Program staff also responded to a questionnaire about the problems, progress, and prognosis of each youth, as well as a listing of the program's efforts on behalf of him or her. This questionnaire was completed upon each youth's termination from a program. Information regarding the cost of the programs and of DSS placements was obtained annually from juvenile court and DSS records. The juvenile court's annual reports provided other information regarding its commitment rates and overall offense patterns.

## RESULTS

The results of the evaluation are presented in three sections. The first section describes the activities of the programs. The next section examines recidivism in terms of official charges and self-reported delinquency. The third section compares the cost of the programs with the usual cost of commitment to the state. Together, these measures should produce the convergence of evidence advocated by researchers as the most effective method of evaluating program outcomes (Gray, Conover, and Hennessey, 1978; Lipsey, Corday, and Berger, 1981; Waldo and Griswold, 1979). The

TABLE 1: Average Monthly Contacts by Program

<i>Index</i>	<i>MHS</i>		<i>IPU</i>		<i>CYT</i>		<i>F</i>	<i>p</i>
	<i>N = 93</i>		<i>N = 95</i>		<i>N = 102</i>			
All Contacts	13.77	>	10.81	~	10.44		7.80	< .001
At Clients' Homes	6.38	>	4.41	>	2.02		57.88	< .001
At Program Site	1.63	~	1.50	<	5.39		42.36	< .001
At Other Agencies	2.49	>	1.83	>	0.70		40.67	< .001
Telephone Contacts	3.28	~	3.06	>	2.33		4.17	< .02

*ANOVA results*> First mean significantly higher than second ( $p < .01$ )

~ First and second means not significantly different

< First mean significantly lower than second ( $p < .01$ )

results suggest that the programs were cost-effective, although implementation problems diluted their impact.

*Program Activities*

The programs were given considerable latitude in defining how "intensive" they would be and in deciding what to include in their repertoire of services. All three programs, however, restricted caseloads to between six and 10 youths per worker. Program workers supervised youths directly and either provided or arranged for the provision of whatever other services were deemed necessary. The programs were designed to have a capacity of about 50 cases. It was expected, but not formally required, that cases would remain in the programs for about one year, unless recidivism necessitated their earlier removal.

The program workers were required to keep a record of all contacts made with and on behalf of each youth. The various types of contact were classified as: home contacts, program site contacts (e.g., group sessions and office visits), other agency contacts (e.g., at schools or other service agencies, sometimes called "collateral" contacts), and telephone contacts.

Table 1 shows the average number of monthly contacts per case recorded by each program. The MHS workers appear to have made significantly more contacts than workers in the other two programs. MHS staff reported contacting each client an average of nearly 14 times each month, or about three and one-half contacts per week. The other two programs averaged between 10 and 11 contacts per month, or slightly fewer than three contacts per week.

MHS staff reported the greatest frequency of home contacts (more than six per month); CYTCIP the least (about two per month). However, CYTCIP

reported significantly more contacts at their program site (more than five per month) than did the other programs (less than two per month). Differences in the other contact frequencies were smaller, although MHS's frequency of collateral contacts (2.49 per month) was significantly higher than that of IPU (1.83 per month) which, in turn, was significantly higher than that of CYTCIP (0.70 per month).

These patterns of contact are consistent with the agencies' avowed differences in program emphases. MHS, the most family-focused program, relied most upon home contacts. CYTCIP, with an on-site educational and recreational emphasis, relied most upon on-site contacts. IPU occupied a middle niche, with more home contacts than CYTCIP but fewer than MHS, an intermediate number of collateral contacts, and relatively many telephone contacts. Such a pattern is consistent with its emphasis on behavioral supervision, resembling regular probation but at a more intensive level.<sup>3</sup>

The three agencies attempted to provide a large array of services to the youths and their parents. Questionnaires completed by staff regarding each terminating case suggested the range of services used by the programs. All programs utilized behavioral supervision and individual counseling with nearly every youth; school placement assistance and social skills training were also used frequently. Otherwise, the programs' service delivery patterns reflected their different emphases. CYTCIP clients had the highest participation rate in youth groups, recreational activities, and camping, while MHS reported greater utilization of parent counseling, parent groups, and tokens/rewards. Both CYTCIP and MHS utilized job-related components more often than did IPU.

Although the three programs had distinct emphases in the delivery of services, they did not differ significantly from each other in case outcomes. Together, the programs successfully graduated just under half of their cases (46.3%). Program youths graduated when the staff were satisfied with their continued cooperation and behavioral improvements. Nongraduates were usually terminated for a new adjudication or for noncompliance with the program. MHS had the highest graduation rate at 51% while that of IPU was lowest at 41.6%. The apparent differences between programs, however, were not statistically significant.

### *Outcomes*

*Official charges.* The evaluation carefully tracked the offenses charged against study youths during the two-year follow-up period. All alleged offenses, not just final charges or adjudications, were recorded. Data were

collected from court records in both the juvenile and the adult system and at state and local levels. For each case the evaluation analyzed: the number of charges filed during the two-year period, the most serious offense charged, and the average seriousness of all the offenses charged.

During the two-year follow-up period, 78% of the in-home program youths and 53% of the control group youths reappeared in a juvenile or adult court at least once. To compare the groups, however, a number of other factors must be taken into account, such as the seriousness of their offenses and the relative amounts of time they were at large in the community during the two-year period. After adjusting for these considerations, the official recidivism of the program youths and the control group was quite similar.

Status offenses accounted for about one-fourth (24.7%) of all charges against the program youths, while violations of program rules accounted for an additional 5%. Other program youths were charged with auto theft (13%), breaking and entering (10%), and larceny (7.5%). Relatively few charges were for extremely violent crimes (7% for aggravated assault, 4.4% for armed robbery, 3% for rape, attempted murder, or murder). The control group youths were charged with proportionally fewer status offenses (10.3%) and more serious offenses (15% auto theft, 12% breaking and entering, 6.6% armed robbery, 7.5% for rape, attempted murder, or murder). Control group youths acquired fewer charges, but when they did appear they tended to be for more serious offenses.

The youths' offenses were grouped into six levels of seriousness, as shown in Appendix A. Seriousness weights were assigned to each level and used to calculate the total seriousness and average seriousness of each youth's charges. The charges against the youths were also weighted by the time they spent incarcerated during the two-year study period (i.e., in detention, institutional placement, jail, or prison). Time not incarcerated was considered to be time "at large." Control group youths averaged much less time at large (10.7 months) than did in-home program youths (18.3 months).

What would have happened had all the youths spent the full 24 months at large with the program youths receiving the in-home services? That question cannot be answered unequivocally, but one can derive a reasonable estimate by assuming that each youth's behavior while at large during the two-year study period was typical. The charges filed against the youths can be divided by the number of months each was at large to derive a rate of charges per month. That rate can be multiplied by 24 to yield an estimate of the number of charges that would be expected had the youth spent the full 24 months at large.

**TABLE 2: Comparison of Program and Control Cases on Charge Incidence, Charge Seriousness, and Time at Large During Two-Year Study Period**

	<i>Program Cases</i>	<i>Control Group</i>	<i>F</i>	<i>p</i>
Mean Number of Charges (N)	2.63 (326)	1.31 (185)	40.47	< .0001
Mean Number of Criminal Charges (N)	1.85 (326)	1.17 (185)	13.73	< .001
Mean Charge Seriousness (N) <sup>a</sup>	3.44 (254)	4.19 (99)	21.19	< .0001
Mean Number of Months Incarcerated (N)	5.64 (326)	12.81 (185)	123.05	< .0001
Mean Number of Months at Large (N)	18.30 (326)	10.68 (185)	138.10	< .0001
Mean Number of Weighted Charges <sup>b</sup> (N) <sup>c</sup>	5.41 (326)	4.05 (160)	3.26	.07 ns
Mean Number of Weighted Criminal Charges (N) <sup>c</sup>	3.69 (326)	3.58 (160)	0.04	.85 ns

a. Number of cases is smaller because mean seriousness is based only upon cases with at least one charge.

b. Weighted charges are adjusted to compensate for case differences in months at large during the two-year study period. Weighted charges are the number of charges that would have been filed in 24 months at large, had the youth's frequency of being charged remained constant.

c. Excludes cases who were never at large during the two-year study period.

Table 2 presents the incidence and seriousness of official charges and estimates charges controlling for time at large in the community. The in-home program youths had significantly more charges (2.63 per case) than did the control group (1.31). If status offenses and technical violations are excluded, the average *number* of criminal charges per case still favors the control group (1.17 versus 1.85) although the difference is smaller. The average *seriousness* of the control group's charges, however, was significantly higher (4.19) than that of the program youths (3.44).

The groups' average time incarcerated indicates that the control group had significantly less opportunity to recidivate. The last two rows in Table 2 show the number of charges and criminal charges that would be expected had all the youths been at large for 24 months. Program youths would be expected to show 5.41 charges each versus 4.05 charges for the youths in the control group, a difference which is not statistically significant as indicated in Table 2. Regarding criminal charges only, the two groups show nearly



identical expected rates: 3.69 charges per program youth and 3.58 charges per control group youth.

This last observation from Table 2 is the most telling, for it points to the essential similarity between the two groups. All of the apparent differences in recidivism favoring the control group can be attributed to two factors: (1) program youths were much more likely than control group youths to be charged with status offenses after their assignment to the study, and (2) program youths spent much more of the two-year study period at large in the community. When these two factors are controlled, the recidivism of the two groups, in terms of criminal charges, is nearly identical.

The evaluation's adjustment for the youths' time at large should not obscure the fact that commitment and placement by the state did "incapacitate" the study youths. The community was spared their behavior during the time the youths were under lock and key. Even among the control group, however, the average period of incarceration was just over a year. All but the most serious juvenile offenders will inevitably be released from the training school system and return to the community. How much is really accomplished by incarcerating young offenders in expensive facilities for a few months each if their prospects for long-term improvement are apparently no better than those of youths on probation? The effects of the control group youths' behavior were at best temporarily delayed by incarceration. If intensive supervision achieves the same long-term reduction in delinquency for one-third the cost, the question becomes one of cost-effectiveness.

*Self-reported delinquency.* One cannot assume, of course, that official charges perfectly reflect actual delinquent behavior. Self-report measures have been used in delinquency research for more than 30 years (Porterfield, 1946; Short and Nye, 1957). Researchers have found that when administered properly and collected under conditions of anonymity or confidentiality, as in the present study, information provided by youths concerning their own activities can be a reliable and internally consistent method of estimating delinquent behavior within some defined time span (Erickson and Empey, 1963; Farrington, 1973; Hardt and Peterson-Hardt, 1977; Hindelang, Hirschi, and Weis, 1979, 1981; Kulik, Stein and Sarbin, 1968).

In each of the interviews, the study youths were asked how often, during the preceding four months, they had engaged in any of 26 different behaviors, from status offenses (e.g., "skipping school without an excuse") to serious crimes (e.g., "injuring someone with a weapon"). Responses from the initial interview provided a profile of each youth's delinquent behavior in the four months preceding program entry. The exit interview measured delinquent activity during the four months prior to program termination. The final

follow-up interview yielded self-reported delinquency for the last four months of the two-year study period.

Due to randomized assignment, program and control group youths did not differ initially in self-reported delinquency (SRD). Thus, the self-report measures can address a major question: Two years after their diversion from commitment, did program youths differ from the control group in SRD? As shown below, the answer is generally no, although the program youths did report committing significantly fewer *violent* crimes than the control group youths at the two year follow-up.<sup>4</sup> This finding parallels the results of the analysis of official charges.

Rather than look at results for each of the 26 self-report items used in the interviews, the behaviors can be grouped into empirically and logically defined categories. A factor analysis of the SRD items in the initial interview produced four meaningful factors (as shown in Appendix B). Indexes were created by adding the scores on the items within each grouping. Thus the *Minor Offense* index contains the number of times a youth ran away, skipped school, trespassed, etc. during the four months in question. The other three indexes summarize *Drug/Alcohol Offenses*, *Property Offenses*, and *Violent Offenses*. In addition to these four indexes, a *Total Delinquency* index was constructed by adding the responses on all 26 items.

A commonsense way to examine individual SRD change would be to look at the differences between the initial and follow-up interviews. Simple change scores, however, are plagued by the statistical artifact known as "regression to the mean," noted in previous evaluations of delinquency programs (cf. Murray and Cox, 1979; Maltz et al., 1980). One way to adjust for this bias is to control statistically for an individual's initial score and derive an *adjusted* change score that represents change independently of the initial score. Technically, the raw change score (i.e., follow-up score minus the initial score) is regressed on the corresponding initial score for each index. The residuals of the regressions are the adjusted change scores.

Table 3 compares the adjusted SRD change scores on the various indexes. Most of the mean values are close to zero, suggesting very little overall difference. On every measure, however, the program youths reported a slight mean decrease while control group youths reported a slight mean increase. Overall, program youths reported a decrease of about three delinquent acts while the control group youths reported an increase of more than four. On the violent behavior index, the difference between the groups is statistically significant—the program youths' mean adjusted change (−1.07) is significantly lower than that of the control group (+1.67), which increased slightly.

This pattern can be seen clearly by comparing the percentage of youths from the two groups that showed a reduction in SRD at follow-up. On every

TABLE 3: Adjusted Change Scores for SRD Indexes Between Initial and Follow-up Interview

Delinquency Index		N	Mean Change	Reduction N (%)		No Reduction N (%)	
Minor:	Programs	143	-0.42	87	(60.8)	56	(39.2)
	Control	71	0.54	39	(54.9)	32	(45.1)
Drug/Alcohol:	Programs	143	-0.42	80	(55.9)	63	(44.1)
	Control	73	0.57	38	(52.1)	35	(47.9)
Property:	Programs	147	-0.61	108	(73.5)	39	(26.5)
	Control	69	1.33	43	(62.3)	26	(37.7)
Violent:	Programs	141	-1.07*	99	(70.2)	42	(29.8)
	Control	71	1.67*	42	(59.2)	29	(40.8)
TOTAL:	Programs	124	-2.66	79	(63.7)	45	(36.3)
	Control	64	4.32	32	(50.0)	32	(50.0)

\*Mean change of program cases is significantly lower (i.e., reflects greater reduction) than that of control group cases ( $F = 4.8$ ;  $p < .05$ ).

index, a slightly higher percentage of program youths reported a reduction. Overall, about 64% of the program youths reported reduced levels of delinquency compared to 50% among those in the control group. On the relatively serious property and violent behavior indexes, more than 70% of the program youths reported reductions, compared to about 60% of control group youths.

The results thus far indicate that the in-home programs were no less effective at curbing recidivism than commitment to the state. A final indicator of program effectiveness is that the programs were able to maintain their successful cases in the community. Nearly 80% (78.1%) of program *graduates* were free of new charges after leaving the programs. Because the average tenure for successful cases was 13 months, this result reflects about one year of postprogram follow-up. Regardless of whether the programs merely allowed already success-prone youths to be successful, or in fact rehabilitated potential recidivists, all the study youths had been recommended for state commitment before being assigned to the programs. With the addition of intensive supervision, many were able to remain successfully in the community.

### Cost Comparison

If in the absence of the programs all diverted youths would have been committed, the total cost of these avoided commitments can be used as an

estimate of fiscal savings attributable to the programs. Not all of these savings were realized, however, due to a steady rise in commitments from Wayne County. Following the introduction of the programs, the commitment rate increasingly exceeded what would have been projected from the volume of delinquency petitions brought before the court (Barton and Butts, 1988). These extra commitments, otherwise known as net-widening, diluted the potential savings of the three programs.

In calculating the savings attributable to the programs, the basic unit of comparison is the cost of each "youth-day" spent in various types of placement. An average per diem rate was calculated for male delinquency wards from Wayne County during each year of the study. If one knows the total number of days a youth was successfully enrolled in a program, one can calculate the likely cost of state commitment for those days. A comparison of this estimated cost with actual program expenditures provides a gross indication of the commitment costs avoided by the programs.<sup>5</sup>

The method of analysis may be summarized by the following simple equations:

1.	Commitment Per Diem Cost	×	Program Youth-Days	=	Comparable Cost of Commitment
2.	Comparable Cost of Commitment	-	In-Home Program Expenditures	=	Commitment Costs Avoided
3.	Commitment Costs Avoided	-	Additional Costs of Net-Widening	=	PROGRAM SAVINGS

Out-of-home placements varied greatly in cost, from less than \$25 per day in some group homes to about \$120 per day in the training schools and private residential facilities. The proportion of Wayne County wards who were in each type of placement on a given day was combined with the cost for these placements to calculate the average per diem cost of a delinquency commitment from Wayne County. The average per diem cost of out-of-home placements for males was estimated at \$79.56 in 1983, rising to \$104.20 by 1986. Then, because not all state wards are placed out of the home, this average cost was multiplied by the percentage of state wards from Wayne County who were placed out of the home.

During 1983, for example, 78% of the males were placed out of their homes during the first year of state wardship (all study youths were facing their first commitment). The estimated 1983 per diem cost of commitment for state wards from Wayne County, therefore, was \$62.06 (or \$79.56 × .78).

TABLE 4: Estimated Program Savings, 1983-1986

Year	Commitment Costs Avoided	Estimated Cost of Net-Widening	Estimated Savings
1983	\$ 1,258,875	\$ 232,760	\$1,026,115
1984	2,623,721	551,250	2,075,471
1985	3,569,448	714,350	2,855,098
1986	4,108,005	1,208,688	2,899,317
TOTAL	\$11,560,049	2,707,048	\$8,856,001

Subsequent estimates were \$68.88 in 1984, \$81.02 in 1985, and \$88.57 in 1986. The total number of program youth-days multiplied by these averaged commitment per diem rates produced estimates of the commitment costs avoided by the programs: \$1.96 million in 1983, \$3.84 million in 1984, \$5.25 million in 1985, and \$5.96 million in 1986.

Of course, the operational costs of the programs themselves must be subtracted from these figures to estimate program savings. In 1986, for example, IPU cost approximately \$22.48 per youth per day; CYTCIP's per diem cost was \$21.89, while MHS's was \$31.38. Taken together, the per diem costs of the in-home programs averaged about \$26 (\$31 for females). Overall, each program youth-day cost about 31% of a comparable day of commitment. As shown in Table 4, the three in-home programs allowed the state and county to avoid more than \$11.5 million in commitment costs between 1983 and 1986.

*Net-widening.* In the first years of the study, it was plausible to assume that one program youth-day saved one day of commitment costs. The study youths surely would have been committed in the absence of the in-home programs, and commitments from Wayne County were sharply reduced. Commitments rebounded in subsequent years, however, and the programs began to augment rather than substitute for commitment. The evaluation found that even when adjusting for the changing volume of petitions coming before the juvenile court, the number of commitments increasingly exceeded expectations. The excess was estimated to be 20 cases in 1983, increasing to about 42 cases in 1984, 50 cases in 1985, and approximately 78 cases in 1986 (see Barton and Butts, 1988).

The cost of these "extra" commitments was subtracted from the cost of avoided commitments in order to refine the program savings estimate.<sup>6</sup> Table 4 indicates that the total cost of net-widening from 1983 to 1986 was estimated to be \$2.7 million. Thus, according to the most conservative

estimate, the use of intensive supervision as an alternative to commitment generated \$8.85 million in savings between 1983 and the end of 1986.

## DISCUSSION

The results of this study can be generalized only to that portion of the juvenile commitment population that would meet the eligibility criteria for the intensive supervision programs, in other words, relatively serious but primarily nonviolent offenders facing their first state commitment. The results suggest that the programs offered a viable, alternative disposition for many such youths who would otherwise have been committed to the state. At about one-third the cost, the programs were no less effective than commitment in controlling subsequent offending or producing other measurable outcomes.<sup>7</sup>

The evaluation's longitudinal analysis of recidivism does not suggest that the in-home programs were dramatically successful in reducing delinquency. The programs did achieve a slight reduction in SRD activity, however, while commitment to DSS was accompanied by a slight increase in the average level of delinquent behavior. When controlling for the youth's time at large, the experimental and control groups were also similar in the number of official charges.

This conclusion of "no difference" may disappoint those who advocate in-home programming for young offenders. It is important to remember, however, that the programs were assessed as an *alternative* to the traditional means of handling adjudicated delinquents. Rather than applying some absolute standard that would suggest whether the programs "worked," the crux of the evaluation was to explore how they compared with what was already being done. Given their cost differences, a null finding might be interpreted as a clear success for the programs. Furthermore, the programs in this study were not perfectly implemented. With careful attention to case-screening procedures, flexible program development, and policies that curb net-widening, intensive supervision programs could be more cost-effective.

This study suggests that intensive supervision is a viable option that other jurisdictions should consider. States that rely heavily on incarceration could reallocate resources from institutional beds to in-home programs and provide more cost-effective services to more youths. In other states, the development of in-home alternatives could prevent the costly construction and operation of new beds. With careful implementation, intensive supervision programs could become a major component of the dispositional continuum in juvenile justice.

## APPENDIX A: Offense Category Definitions and Seriousness Weights

<i>Offense Category</i>	<i>Seriousness Weight</i>	<i>Offenses</i>
Status	1	Status Offenses (e.g., truancy, incorrigibility)
Program Offenses	1	Violation of Probation (unspecified) Program Offenses (e.g., failure to obey program rules)
Minor	2	Littering, Loitering, UPIS Disorderly Conduct Resisting Arrest, Fleeing, and Eluding
Drug	3	Drug Possession (except heroin) Heroin Possession Drug Sales
Medium	4	Vandalism, Malicious Destruction of Property Weapons Possession Receiving Stolen Property Fraud Simple Assault
Major 1	5	Larceny Auto Theft Breaking and Entering Aggravated Assault Unarmed Robbery
Major 2	6	Armed Robbery Arson Rape, Sexual Assault Manslaughter Attempted Murder Murder

## APPENDIX B: Composition of Self-Report Delinquency Indexes Using Initial Youth Interviews (N = 412)

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### I. *Drug and Alcohol Offenses* (Alpha = .76)

Drank beer, wine, or liquor without your parents' permission.  
 Smoked marijuana (or hash).  
 Used any drugs or chemicals to get high, except marijuana.  
 Sold marijuana, drugs, or chemicals.

### II. *Property Offenses* (Alpha = .86)

Purposely damaged or messed up something not belonging to you worth **more than \$200**.  
 Purposely damaged or messed up something not belonging to you worth **between \$50 and \$200**.  
 Took something worth **more than \$200** that didn't belong to you.  
 Took something worth **between \$50 and \$200** that didn't belong to you.  
 Broke into a house or a building.  
 Took a car without the permission of the owner.

### III. *Violent Offenses* (Alpha = .80)

Injured someone with a weapon.  
 Injured someone so that they had to stay in the hospital overnight or longer.  
 Injured someone so that they needed a doctor's care (but didn't stay in a hospital).  
 Injured someone so that you left a bruise or cut (but they didn't need a doctor).  
 Threatened to hurt or injure someone **with** a weapon.  
 Took part in a fight where a bunch of your friends were against another bunch.  
 Carried a gun or knife besides an ordinary pocket knife.  
 Hit one of your parents.

### IV. *Minor Offenses* (Alpha = .76)

Ran away from home (at least for a day or two).  
 Skipped a day of school without any real excuse.  
 Tried to get something by lying about who you were or how old you were.  
 Tried to get something by lying to a person about what you would do for him or her.  
 Purposely damaged or messed up something not belonging to you that was worth **less than \$50**.  
 Took something worth **less than \$50** that didn't belong to you.  
 Threatened to hurt or injure someone **without** a weapon.  
 Trespassed on someone's property (not counting breaking in).

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## NOTES

1. CYTCIP inherited its program from another agency that was unable to fulfill its initial contract after several months of operation. Although CYTCIP gradually replaced existing staff and revised the program to its own specifications, the evaluation cannot draw firm conclusions about CYTCIP's effectiveness with its particular program. Subsequent to the evaluation, Michigan Human Services changed its name to Spectrum Human Services.

2. Exit interviews were not sought with the control group cases because most of them experienced a variety of placements during their state wardship, so that it was not clear what would constitute an "exit" comparable to a termination from one of the in-home programs. Furthermore, this study made no attempt to evaluate the treatment afforded the control group.

3. The fact that these patterns conform to expectations about program characteristics lends credence to the use of the workers' contact reports for comparison purposes. Still, findings based upon these data must be interpreted cautiously, as records of contact may reflect organizational and management attributes of the programs (e.g., diligence in record keeping) as well as actual service delivery.

4. By the third interview, only half of the original sample participated fully. All analyses, however, were examined for nonresponse bias.

5. An alternative would be to multiply the average per diem by the control group's average length of placement under commitment status. This would not produce substantially different results, however, because the average program tenure was within one month of the control group's average placement duration.

6. Several steps were needed to estimate the average cost per *extra* commitment. The per diem costs of commitment were multiplied by 182.5 days to produce the average cost incurred in a given calendar year for each commitment made during that year. The 182.5 day figure (i.e.,  $365 \div 2$ ) was used to account for the fact that commitments can occur at any time during the year. Separate costs were calculated for males and females and averaged according to their respective proportions of the commitment population (86% male). The resulting cost of a commitment in a given year, multiplied by the number of extra commitments occurring that year, provided the estimated net-widening costs. For example, the 78 extra commitments in 1986 cost an average of \$15,496 each for a total cost of more than \$1.2 million.

7. Outcomes other than recidivism were analyzed by the evaluation, including changes in family relationships, school attitudes, academic or occupational achievement, self-concept, etc. The results at the two-year follow-up showed essentially the same pattern found for recidivism: little or no difference between the in-home programs and commitment to the state.

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