Seattle Youth Service Bureau-Accountability System: Two-Year Evaluation and Crime Impact Analysis

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Your City, Seattle

Executive Department—Law and Justice Planning Office
Lawrence G. Gunn, Director
Wes Uhlman, Mayor

April 19, 1976

U. S. Department of Justice
Law Enforcement Assistance Administration
National Criminal Justice Reference Service
Evaluation Clearinghouse
Washington, D. C. 20530

Gentlepeople:

Enclosed are five copies of an evaluation report recently completed by the Seattle Law and Justice Planning Office. We would like to enter the report into the Evaluation Clearinghouse portion of the National Criminal Justice Reference Service.

Thank you for your assistance in this matter.

Sincerely,

Kenneth E. Mathews, Ph.D.
Senior Researcher/Evaluator

KEM/es
enclosure: Five copies of the evaluation report: Seattle Youth Service Bureau-Accountability System: Two-Year Evaluation and Crime Impact Analysis, February, 1976

PREFACE

A preliminary evaluation of Seattle's Youth Service Bureau (YSB) System has been done at this time to determine the degree to which the project has been implemented and achieved its delinquency reduction goals. The evaluation is organized into three major components: Part I summarizes the historical background and present structure of the project. Part II summarizes the descriptive data (client population characteristics, services provided, etc.) relevant to project operation. Part III provides a full presentation and explanation of statistical analyses of the crime impact of the YSB System after two years of operation, and the conclusions which can be drawn at this time.

During the period September 1, 1973, to September 1, 1975, the YSB program was funded by the Law Enforcement Assistance Administration (grants #1137, #1478, #1499, #1500 and #1477), and by the Department of Health, Education and Welfare, for a total project cost of $657,896.

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INTRODUCTION

A. History

The basic concept for youth service bureaus as an agency coordinating existing services, providing needed services not available within a community and diverting youths from traditional criminal justice system processing was initially proposed by the 1967 President's Commission on Law Enforcement and the Administration of Justice. While the Seattle Youth Service Bureau-Accountability System is consistent with the concept, the accountability board component was developed by the Seattle Law and Justice Planning Office in response to the rising rate of juvenile crime. Data indicated that a large proportion of that crime was being committed by repeat offenders who were not being deterred from continued criminal activity by their interaction with the juvenile justice system. The rationale for the development of the community-based accountability system was founded on the assumption that a high percentage of juvenile crime was attributable to the failure of the existing system to hold youths accountable for their offenses through the prompt and appropriate application of social sanctions on the local level. It was further assumed that uniformly requiring a community obligation, for youths who have committed offenses, would reduce the likelihood of subsequent criminal behavior for those youths, as well as providing a deterrent to other youths in the area. This was to be achieved by establishing a Community Accountability Board (CAB) working in conjunction with each Youth Service Bureau. The CAB receives juvenile referrals from the criminal justice agencies (primarily juvenile court) in which the youth admits guilt in a criminal case and agrees to appear before the CAB rather than go through the normal juvenile justice system. The CAB hears the case and then assigns either a community service or monetary restitution requirement, which is monitored by the bureau.

It was assumed that this manner of dealing with juvenile offenders would have the following hypothesized effect:

> Hypothesis: That by holding juveniles residing within a given community accountable for their criminal activities, there would be a statistically significant decrease in Part I and II juvenile contacts: (a) within the community, and (b) for individuals appearing before an accountability board.

To determine if the hypothesized effect has occurred, data were collected on reported crime rates and juvenile contacts (which correspond to adult arrests) for bureau areas and the rest of the City for the period one year prior to the implementation of the program (September, 1972) through the end of the second year of program operation (August, 1975). In addition, recidivism rates for youths involved in the program were compared with actuarial recidivism predictions to determine the impact of various program component services. Crime

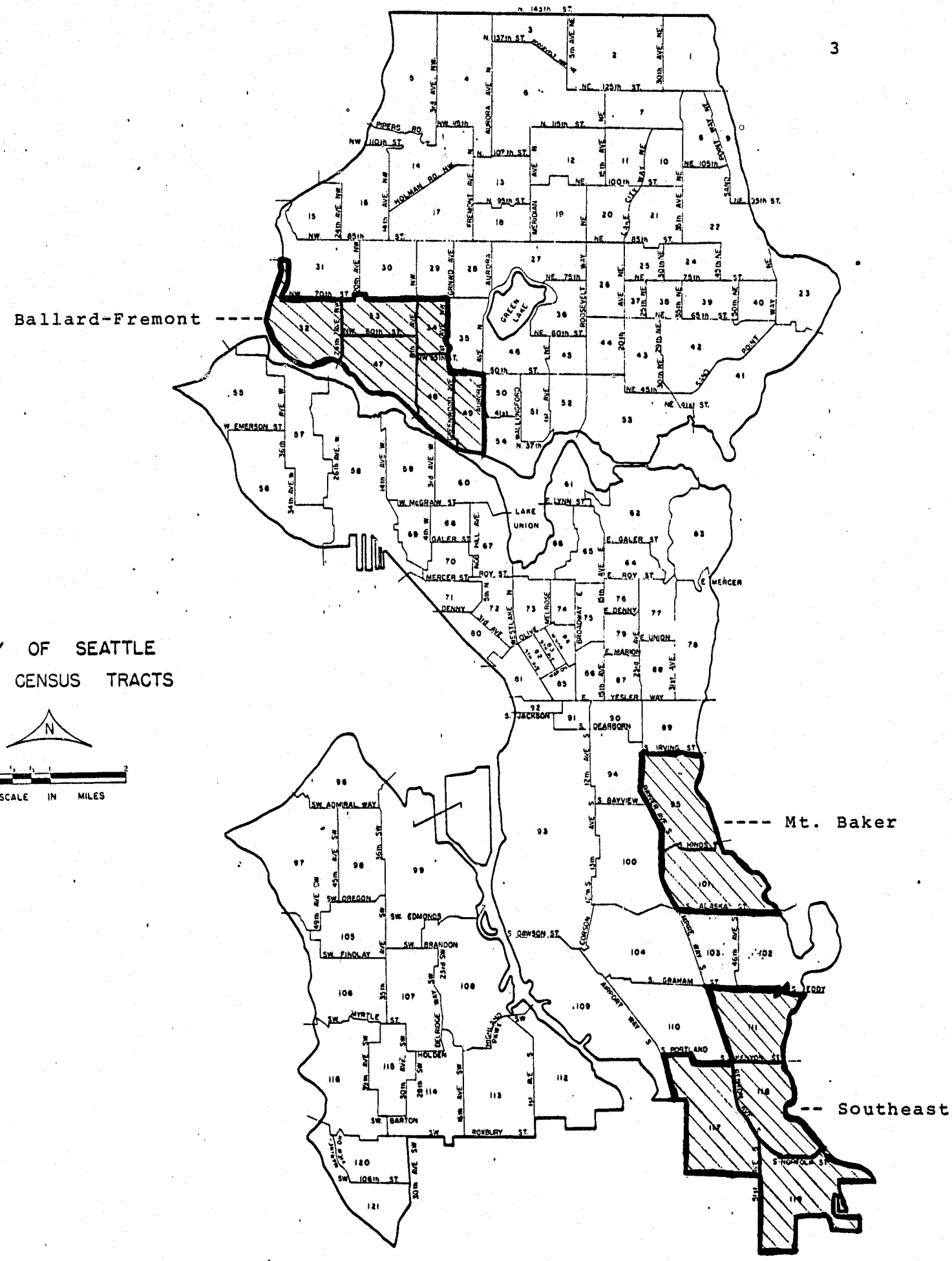
and recidivism data for the appropriate areas and youths were obtained from the Seattle Police Department. Type and amount of program service received by YSB clients and social-demographic data were obtained from YSB initial intake and continuing service forms.

B. Organization

The first of the three youth service bureaus currently operating was in the Mt. Baker community, which was suffering from a substantial juvenile crime problem in September, 1973. Mt. Baker thus became the initial test for a concept which has had far reaching implications for changing the way the juvenile justice system (police, courts and institutions) traditionally operated. Working together, community residents and City staff determined that an accountability board could not operate in a vacuum. It not only required full cooperation of local citizens, the police and the court, but services were needed to support the accountability board concept. Youths could not reasonably be expected to make restitution for their offenses if opportunities for employment were not available to them, or if their family or school situations were totally disabling. Therefore, a service delivery system was established in Mt. Baker which included a restitution/employment component, an alternative school and individual and family counseling. It took approximately five months to hire staff and operationalize the service delivery system in Mt. Baker. Once this was accomplished, the Mt. Baker accountability board became operational in February, 1974.

During 1974, the City of Seattle implemented an expanded YSB System, supplementing the Mt. Baker YSB with two additional YSB's--one in Ballard-Fremont (October, 1974), one in Southeast Seattle (November, 1974). The system is thus composed of four elements: the three YSB's and a Central Administration agency (within the Seattle Department of Human Resources). The areas served by the three YSB's are represented by 12 federal census tracts: 95 and 101 (Mt. Baker); 32, 33, 34, 47, 48 and 49 (Ballard-Fremont); and 111, 117, 118 and 119 (Southeast). See Map 1 for bureau locations within the City of Seattle.

The Central Administration element consists of a Central Program Manager who is responsible for the overall administration of the three YSB's; an Employment/Vocational Coordinator and a Resource/Volunteer Coordinator, both of whom provide direct services to the individual YSB's. The Central Administration Program Manager is responsible for day-to-day administrative tasks and recruitment and selection of the individual YSB directors, who report directly to the Program Manager. The Employment/Vocational Coordinator is responsible for developing job opportunities, matching individual YSB clients with appropriate jobs and assisting in the placement function. This individual also is responsible for monitoring the success of those youths placed in specific jobs and for collection of data relevant to the evaluation of the employment component. In



MAP 1: LOCATION OF YSB AREAS

addition, the Employment/Vocational Coordinator is responsible for contacting local vocational training organizations and for placement of clients in subsidized vocational training programs. The Resource/Volunteer Coordinator originally was responsible for the development and maintenance of working relationships between service agencies and the YSB System, as well as for seeking out alternative living arrangements, mental health/medical and other services needed by clients in the three YSB target areas. This individual's responsibilities also included liaison with King County Juvenile Court (KCJC) in a successful attempt to increase referrals to the YSB Community Accountability Boards (CAB's). A half-time CETA-funded position was created for the organization of volunteer services, including student placement from local universities and colleges.

C. Services, Functions

Accountability Boards

With regard to the services provided within the three bureaus, service functions may be described within six broad categories: first, the individual YSB's each have established and maintain a Community Accountability Board (CAB), composed of youth and adult volunteers from the community, appointed by a local selection committee. The boards hear delinquency complaints and determine the type of community obligation and/or amount of monetary restitution or service to be carried out by juvenile offenders. Outreach/Restitution workers from individual bureaus coordinate with the CAB's in an effort to assure that such obligation as is assigned can be met by the offender. In accomplishing this task, each CAB prepares such documentation as may be required by the CAB for its deliberations and, subsequent to the deliberations, assists the offender in the process of meeting the requirements of the board. Beyond these tasks, Outreach workers are responsible for coordinating referral activity into the youth service bureaus. In this capacity, the individuals work with police departments, neighborhood groups, the court system, schools, etc.

Education

Second, educational services are provided by Seattle Public Schools in the Ballard-Fremont and Mt. Baker YSB's. The alternative school program in Mt. Baker was designed along the lines of the local Juvenile Parole Learning Center in which the student and teacher establish a verbal or written "contract" clearly stating objectives to be reached in a specified period of time in order to reach identifiable goals. The alternative educational program used in Ballard-Fremont was designed as a learning-reward model in which rewards are given on the basis of attendance, achievement and acceptable classroom behavior. Educational services have not been provided by the Southeast YSB.

Employment; Resource/Volunteer

The third and fourth major service functions are employment and resource/volunteer coordination, which were described briefly above.

Counseling

A counseling service function exists in each of the bureaus. Counselors work with individuals having difficulties within any of the individual service functions and further provide intake and outside referral for YSB clients. The counselors are responsible for maintaining up-to-date records of current enrollment status of all YSB clients.

Supervised Restitution

Finally, YSB's offer a supervised restitution service for youths referred with an obligation assigned by a non-CAB source. For example, a youth may be referred by King County Juvenile Court after adjudication in which the judge has assigned a restitution or community service obligation. It is the responsibility of the Restitution/Outreach worker, in conjunction with the CAB, to assist the referred youth in fulfilling the assigned obligation. Youths who do not complete their assignment are referred back to the referral source for further action.

D. Evaluation Design

In an attempt to evaluate two years of YSB operation, the evaluation design examines five evaluative aspects: client population description, services and accountability board (CAB) functions, program implementability, crime impact and a comparison with other juvenile delinquency reduction programs in Seattle. Listed below are brief descriptions of the data analyzed and reported in the present evaluation and/or future evaluations.

1. Client population description

This section is a numerical presentation of characteristics of YSB participants in terms of social and demographic data, as well as delinquent histories. No statistical analyses are performed, since this section is primarily descriptive in nature.

2. Services and CAB functions

This section is also primarily descriptive and focuses on the number of clients served by each of the six components of the YSB's: CAB, education, employment, counseling, supervised restitution and referral. The present report includes a more detailed analysis of the extent alternative education objectives were met during the past program year.

3. Implementation of the CAB's

During the initial operation of the Mt. Baker YSB (late 1973 through early 1974), referrals of youths from police and court for the recent commission of offenses were minimal. Attempts to implement the community accountability system revealed a certain degree of resistance on the part of traditional justice system agencies to allow communities to assume increased responsibility for their juvenile crime problems.

During an initial review of the YSB System, concern was expressed regarding the implementability of the program. It was decided that if the accountability boards were not receiving a high proportion of the delinquent youths from the target areas after the first year and one-half of operation in Mt. Baker and six months of operation in Ballard-Fremont and Southeast Seattle, continuation funding of the accountability system would not be sought. In other words, the community accountability strategy would have to be abandoned on the grounds that it cannot be implemented in its present form.

This report contains data related to CAB referrals as of March, 1975, (after one and one-half years of YSB operation), which was reported to the Seattle City Council in April, 1975. At this time, referrals to the CAB's continue to be substantial.

4. Crime Impact

As a juvenile crime reduction project, the major goal of the YSB System is to reduce crime, specifically through a process of holding young offenders accountable for their delinquent activities. The evaluation design called for examining three types of data to determine crime impact of the program: reported incidents of selected Part I crimes (burglary, auto theft and larceny), total juvenile contacts and individual recidivism of YSB clients.

Part III, the crime impact data, provides the rationale for choosing these particular measures of program impact upon juvenile crime.

5. Comparison with other juvenile programs

To determine the relative merit and cost of the YSB System in reducing juvenile crime, comparisons with other local youth programs are anticipated. The completion of these comparisons will depend upon the availability of adequate data from other programs.

DESCRIPTIVE DATA

This portion of the report provides selected descriptive data on clients, recidivism follow-up and services offered during the first two years of YSB operation, September, 1973, to July 31, 1975, (unless otherwise noted). This includes data on 94 clients from the first year of operation of the Mt. Baker YSB (Mt. Baker-1st year). Although 199 clients were seen during Mt. Baker-1st year, nearly 30 percent of those youths were involved only in a summer recreation program at the YSB and did not participate in any of the regular services offered by the bureau. In addition, some youths had reached age 18, and their police contact records were no longer available. Some youths continued their participation in the YSB during its second year of operation, and they have been included with data on Mt. Baker-2nd year, although their entry date is given as the original one.

Data on Mt. Baker-1st year clients were not maintained to the same degree of detail and accuracy as during the second year, because of the lack of an implemented, detailed evaluation design and data collection procedure during the first year. However, where data were available, they have been included in the following descriptions and analyses.

Age, Race and Sex of Clients

As shown in Table 1, the majority of clients at the Mt. Baker YSB (both first and second years) were black males (38 percent of the second year's client population and 22 percent of the first year's). Ballard-Fremont's enrollment, on the other hand, was 55 percent white male. Of Southeast's clients, 71 percent were male, although they maintained a fairly balanced racial composition.

For the Mt. Baker YSB area (federal census tracts 95 and 101), 1970 census data indicate 59.4 percent of the population was white. The corresponding percent for the Ballard-Fremont area (census tracts 32, 33, 34, 47, 48 and 99) was 97.4 percent; for Southeast (census tracts 117, 118, 119 and 111), 80.3 percent.

The average age (at entry) of clients served was 14.7 years for Mt. Baker-2nd year, 14.5 years for Ballard-Fremont, 14.6 years for Southeast and 14.4 years for Mt. Baker-1st year.

Sources of Referral of YSB Clients

As shown in Table 2, the primary referral source for all three YSB youths (except in the first year of Mt. Baker) was King County Juvenile Court (37 percent of the referrals to Mt. Baker, 53.1 percent of the referrals to Ballard-Fremont and 91.3 percent of the referrals to Southeast). These figures reflect a continuing cooperation and willingness on the part of the KCJC to refer youths to the Accountability Boards. School, or school-related, referrals accounted

TABLE 1. AGE (AT-ENTRY), RACE, AND SEX OF ALL YSB CLIENTS AS OF JULY 31, 1975

	AREA:	MT. BAKER - 2ND YEAR						BALLARD-FREMONT						SOUTHEAST						MT. BAKER - 1ST YEAR*						TOTALS BY RACE
	SEX:	MALE			FEMALE			MALE			FEMALE			MALE			FEMALE			MALE			FEMALE			
RACE:	AGE:	10-12	13-15	16-18	10-12	13-15	16-18	10-12	13-15	16-18	10-12	13-15	16-18	10-12	13-15	16-18	10-12	13-15	16-18	10-12	13-15	16-18	10-12	13-15	16-18	
Asian			6	8		8	2	2	1			1	1	1	6	3					2	1	1	2	4	42
Black		6	37	23	7	16	13		1				2	5	11	5	2	8	2	5	19	11	4	9	7	192
Chicano			2	1	1	1	1		1													1		2		10
Native American			1	1						2	1					1					2					8
White		2	13	8	1	7	6	10	45	26	8	30	14	1	6	9		7	1		10	1	1	7	2	215
Other							2		1		1					1										5
Total		8	59	41	9	32	24	12	49	26	10	31	17	7	23	19	2	15	3	5	33	14	6	20	13	480

*Incomplete age/race/sex data for three youths participating in the Mt. Baker YSB's first year of operation accounts for the discrepancy in total figures.

TABLE 2. SOURCES OF REFERRAL OF ALL YSB CLIENTS AS OF JULY 31, 1975

Main Referral Sources	Mt. Baker 2nd Year	Ballard-Fremont	Southeast	Mt. Baker 1st Year
Juvenile Court	64	78	63	9
School or School Related	44	27	2	19
Law Enforcement Agency	2	3	-	24
Family	17	10	-	8
Other Social Agency	6	12	3	6
Self	11	6	1	11
Friend	18	6	-	5
Community	8	3	-	-
Other or Unknown	3	2	-	12
TOTAL	173	147	69	94

for 25.4 percent of the referrals to Mt. Baker-2nd year, 18.4 percent in Ballard-Fremont, 2.9 percent in Southeast and 20.2 percent in Mt. Baker-1st year. Other social agencies referred 3.5 percent of the clients at Mt. Baker-2nd year, 8.2 percent at Ballard-Fremont, 4.3 percent at Southeast and 6.4 percent at Mt. Baker-1st year. The remaining referral sources accounted for less than 30 percent of the total referrals.

Police Arrests, Pre- and Post-YSB Entry

Tables 3 and 4 present total pre- and post-YSB entry contacts for all YSB clients. The average number of Part I offenses per offender prior to entry is 2.6 for Mt. Baker-2nd year, 1.8 for Ballard-Fremont, 1.6 for Southeast and 2.8 for Mt. Baker-1st year. The average number of Part I offenses per offender subsequent to YSB entry is 1.7 for both Mt. Baker-2nd year and Ballard-Fremont, 1.3 for Southeast and 2.4 for Mt. Baker-1st year. Statistical comparison of the pre- and post-offense data would be meaningless because of the disparity in time periods between prior and subsequent (follow-up) offense records. In addition, rate measures (number of offenses per unit of time) would be misleading without appropriate comparison groups. A statistical analysis of six-month recidivism based on actuarial data is presented in the next portion of this report (Results Section). Pre- data were based on all offenses for which a youth was contacted, from birth until YSB entry. Post- data, however, include only those offenses for which the youth was contacted subsequent to program entry. In the case of Ballard-Fremont and Southeast YSB's, this follow-up period averaged less than six months.

Living Arrangements of Clients at Entry

Table 5 shows that the proportion of youths known to be living with their natural mothers was 76 percent in Mt. Baker-2nd year, 74 percent in Ballard-Fremont and 75 percent in Southeast. (The living situation for Mt. Baker-1st year youths, for the most part, was unknown.) However, the proportion of youths known to be living with their natural father was 46 percent in Mt. Baker-2nd year, 41 percent in Ballard-Fremont and 54 percent in Southeast.

Number of Children, Order of Birth

Tables 6 and 7 present data on number of children in the clients' families and client birth order.

Number of Clients Receiving Services, Singly or in Combination

Table 8 presents services and combinations of services received by all YSB clients. CAB hearings without any other services were received by 41 percent of all YSB clients. Of the CAB youths who also participated in services, 69 percent received employment only. Of those youths who only received services, 20 percent participated in education, employment and counseling. Another 18 percent were

TABLE 3. TOTAL PRIOR POLICE CONTACTS FOR ALL YSB CLIENTS (INCLUDES RUNAWAY, STATUS, DRUG & ALCOHOL OFFENSES)

	Mt. Baker-2nd Year Total Clients = 173		Ballard-Fremont Total Clients = 147		Southeast Total Clients = 69		Mt. Baker-1st Year Total Clients = 94	
	# Offenses	# Offenders	# Offenses	# Offenders	# Offenses	# Offenders	# Offenses	# Offenders
Part I Offenses	295	113	179	97	100	63	146	53
Part I and II Offenses	563	137	402	125	149	64	271	65
Average No. Months between 1st Offense & YSB Entry	15.5		16.1		15.7		15.0	
Average Age (at entry) of All Clients	14.7		14.5		14.6		14.4	

TABLE 4. TOTAL POLICE CONTACTS OCCURRING AFTER YSB ENTRY FOR ALL CLIENTS (INCLUDES RUNAWAY, STATUS, DRUG & ALCOHOL OFFENSES)

	Mt. Baker-2nd Year		Ballard-Fremont		Southeast		Mt. Baker-1st Year	
	# Offenses	# Offenders	# Offenses	# Offenders	# Offenses	# Offenders	# Offenses	# Offenders
Part I Offenses	71	43	39	23	4	3	61	25
Part I and II Offenses	146	63	86	39	13	9	123	41
Average No. Months Follow-up up (from entry to 8-31-75)	8.4		5.9		4.6		17.8	

TABLE 5. LIVING SITUATION (WITH WHOM YOUTH IS LIVING AT PROGRAM ENTRY) OF ALL YSB CLIENTS AS OF JULY 31, 1975

Adult Female/Male With Whom Client Resides	Mt. Baker 2nd Year	Ballard-Fremont	Southeast	Mt. Baker 1st Year
Natural Mother	131	109	52	14
Foster Mother	9	10	-	7
Adoptive Mother	2	-	2	1
Step Mother	2	3	4	-
Relative	9	10	5	1
Not Related	3	2	-	-
None	12	4	6	5
Unknown	5	9	-	66
Natural Father	80	60	37	8
Foster Father	4	7	-	6
Adoptive Father	-	1	3	-
Step Father	11	11	4	-
Relative	2	3	2	1
Not Related	1	1	-	-
None	35	28	12	6
Unknown	40	36	11	73

TABLE 6. NUMBER OF CHILDREN IN FAMILIES OF ALL YSB CLIENTS AS OF JULY 31, 1975*

Area	Number Children in Family										Mean Number of Children/Family
	1	2	3	4	5	6	7	8	9 and Above	Unknown	
Mt. Baker 2nd Year	5	26	23	30	15	15	11	6	12	30	4.5
Ballard-Fremont	4	10	23	17	14	14	7	3	9	49	4.6
Southeast	4	2	6	10	7	1	1	4	2	32	4.4

TABLE 7. ORDINAL POSITION (BIRTH ORDER) OF ALL YSB CLIENTS*

	Ordinal Position										Average Ordinal Position
	(Oldest) 1	2	3	4	5	6	7	8	9 and Above	Unknown	
Mt. Baker 2nd Year	29	43	28	20	9	6	3	2	2	31	2.9
Ballard-Fremont	20	24	22	11	6	5	3	2	2	52	3.1
Southeast	12	12	5	4	-	-	1	-	1	34	2.4

*Data unavailable for Mt. Baker 1st year clients.

TABLE 8A. SERVICES AND COMBINATIONS OF SERVICES RECEIVED BY CAB YSB CLIENTS AS OF JULY 31, 1975

Area	SERVICES													Total
	1 Only	1, 2	1, 3	1, 4	1, 5	1, 2, 3	1, 2, 4	1, 3, 4	1, 2, 3, 4	1, 3, 4, 5	1, 3, 6	1, 4, 6	1, 2, 3, 4, 6	
Mt. Baker 2nd Year	26	3	19	4	-	4	-	3	4	1	1	-	4	69
Ballard-Fremont	30	-	15	2	1	4	3	7	11	-	-	-	-	73
Southeast	27	-	12	9	-	-	-	9	-	-	-	-	-	57
Mt. Baker 1st Year	1	-	2	1	-	-	-	-	-	-	-	1	1	6
Total	84	3	48	16	1	8	3	19	15	1	1	1	5	205

TABLE 8B. SERVICES AND COMBINATIONS OF SERVICES RECEIVED BY SERVICE ONLY YSB CLIENTS AS OF JULY 31, 1975

Area	SERVICES																		Total*
	2 Only	3 Only	4 Only	5 Only	6 Only	2, 3	2, 4	3, 4	2, 3, 4	2, 3, 4, 6	3, 5	4, 5	3, 4, 5	3, 6	4, 6	3, 4, 6	2, 4, 6	2, 3, 4 5, 6	
Mt. Baker 2nd Year	10	25	3	3	1	6	5	2	17	16	3	-	-	1	1	1	1	2	97
Ballard-Fremont	4	13	8	2	2	2	6	-	28	3	-	-	-	-	-	-	-	-	68
Southeast	-	1	2	1	1	2	-	-	-	-	2	2	1	-	-	-	-	-	12
Mt. Baker 1st Year	-	8	20	-	4	-	13	9	6	6	-	-	-	-	7	1	8	-	82
Total	14	47	33	6	8	10	24	11	51	25	5	2	1	1	8	2	9	2	259

*A total of 19 enrolled clients received neither CAB hearing nor identifiable services: 7 in Mt. Baker 2nd Year, 6 in Ballard-Fremont, and 6 in Mt. Baker 1st Year.

EY TO SERVICE DESIGNATION: 1 = CAB 2 = Education 3 = Employment 4 = Counseling 5 = Supervised Restitution 6 = Refe

involved in employment services only, and 12 percent received counseling only.

Total Number of Youths Served by Each YSB Program Component

An overall summary of the number of clients served by each YSB service component is presented in Table 9.

ACCOUNTABILITY BOARDS

As shown in Table 10, a total of 205 cases were heard by CAB's of all bureaus from February, 1974, through July, 1975. Juvenile Court referred 89 percent of the cases, and 66 percent of the cases heard were for shoplifting offenses. Community service assignments were the most frequently issued obligation (80 percent), and 83 percent of all CAB youths had completed their assignment by July 31, 1975. The average length of time taken for completion of a CAB assignment was 4.03 weeks.

The average number of hours of community service assigned was 12.85; the mean sum monetary restitution assigned was $21.60. No statistical comparison between assignments, in terms of reducing recidivism, is possible because of the few numbers of clients who were given assignments other than community service.

EDUCATION

A total of 131 youths participated in the YSB alternative school program during the 1974-1975 academic year: 70 in Mt. Baker-2nd year, 61 in Ballard-Fremont. Insufficient data on Mt. Baker-1st year school enrollees precluded their inclusion in this analysis. Two youths who participated in the Mt. Baker-2nd year YSB program and were enrolled in the school during the first year but not the second have also been excluded from this analysis.

The major objective of the YSB alternative education program is to demonstrate a statistically significant increase from pre- to post-achievement test scores. The Peabody Individual Achievement Test (PIAT) which provides a total score and five subscores (reading recognition, reading comprehension, spelling, math and general information) was selected as the measurement of academic achievement, based on a review of achievement tests provided by Buros Mental Measurement Yearbook. The test was administered to students upon entry into the alternative schools and at termination or completion. From Ballard-Fremont, 37 students and from Mt. Baker 34 students were pre- and post-tested on the PIAT; however, only 65 of the students (33 from Ballard-Fremont, 32 from Mt. Baker) were enrolled in the schools for a minimum of 12 weeks. To be included in the statistical analysis, a requirement of 12 weeks of participation in an alternative school was imposed for two reasons: (1) it was believed there was a small likelihood of the school program having a measurable effect on individual achievement in less than 12 weeks; (2) additional efforts on the part of teachers would be required in post-testing youths within a shorter period of time than 12 weeks. Frequently, youths stopped coming to

TABLE 9. TOTAL NUMBER OF YOUTHS SERVED BY EACH YSB PROGRAM COMPONENT*

Number of Youths	Service/Program Component
205	CAB
169	Education
252	Employment/Vocational Training
228	Counseling
18	Supervised Restitution
62	Referral
934	Persons/Services

*Individuals may have received multiple services.

TABLE 10. TOTAL CASES HEARD BY CAB'S AS OF JULY 31, 1975

	Mt. Baker 2nd Year	Ballard-Fremont	Southeast	Mt. Baker 1st Year	Total
Total Cases Heard	69	73	57	6	205
Referral Sources					
Juvenile Court	64	62	57	-	183
Law Enforcement Agency	1	1	-	-	2
Other Social Agency	1	-	-	-	1
Community	2	2	-	-	4
School	-	2	-	-	2
Parent/Family	-	4	-	-	4
Friend	-	-	-	-	-
Self	-	2	-	-	2
Other/Unknown	1	-	-	6	7
Offense					
Shoplifting	42	43	46	4	135
Burglary	8	7	-	1	16
Property Damage/Vandalism	6	5	1	-	12
Bike Larceny	3	1	1	-	5
Prowling	3	2	-	-	5
Assault	2	-	1	1	4
Fraud	1	1	2	-	4
Auto Theft	-	3	-	-	3
Purse Snatch	1	-	1	-	2
Car Prowl	-	1	-	-	1
Minor Improper Place	1	-	-	-	1
Other Larceny	1	5	3	-	9
CCW & Poss./Disch. Firearms	1	1	1	-	3
Larc. by Possession	-	2	-	-	2
Probation Violation	-	1	-	-	1
Trespassing	-	1	-	-	1
Obstruction	-	-	1	-	1
Obligation Assigned					
Community Service	44	58	56	5	163
Monetary Restitution	8	5	-	1	14
Warning	4	1	-	-	5
Apology	3	-	-	-	3
Warning or Apology and Community Service	2	8	-	-	10
Warning or Apology and Monetary Restitution	1	-	-	-	1
Community Service and Monetary Restitution	3	-	1	-	4
Other	4	1	-	-	5
No. Completed Restitution (as of July 31, 1975)	54	59	52	6	171

classes, and teachers could not be expected to anticipate this situation soon enough to readminister the test. This procedure may have allowed a selective "mortality" bias to influence the analysis. However, it was felt that the data, although incomplete, would be useful.

The means for total raw PIAT scores, corresponding grade placement and age equivalents are presented in Table 11 for the 33 students at Ballard-Fremont and the 32 students at Mt. Baker who met the above requirement. (Note that the mean length of enrollment in weeks ($\bar{x}_{T.E.}$) for Mt. Baker was 31.99 weeks, for Ballard-Fremont 22.09 weeks.

As shown in Table 11, both the Mt. Baker and Ballard-Fremont students showed an increase in academic achievement levels from pre- to post-testing. In both Mt. Baker and Ballard-Fremont, students' total achievement scores increased by more than 15 points, with grade placement equivalent increases of approximately one year and age equivalent increases of one year. This is particularly interesting when it is recalled that the Mt. Baker students' average length of enrollment was nearly ten weeks longer than that of Ballard-Fremont students. It should be noted, however, that the mean actual current grade of these students at the time of YSB enrollment was 10.2 for Mt. Baker and 9.3 for Ballard-Fremont. The discrepancy between actual grade placement at time of entry and achievement test grade equivalent (3.4 years in Mt. Baker and 1.6 years in Ballard-Fremont) could lead one to argue that the Mt. Baker students were further behind to begin with and required more time to reach nearly the same degree of achievement increase as the Ballard-Fremont students. Of course, the fact that it took longer for the Mt. Baker students to reach approximately the same degree of achievement increase could be explained by a difference in techniques used by the two alternative schools.

The alternative school program in Mt. Baker (Mt. Baker Prep, a continuation of the Plus-us Learning Center of the first year of operation) was designed along the lines of the Juvenile Parole Learning Center in which the student and teacher establish a verbal or written "contract" clearly stating objectives to be reached in a specified period of time in order to reach identifiable goals. The alternative educational program employed in the Ballard-Fremont YSB is a learning reward model in which rewards are given on the basis of attendance, achievement and acceptable classroom behavior.

The mean actual age of students at the time of YSB enrollment was 15.3 years for Mt. Baker, 14.8 years for Ballard-Fremont. Again, there is a larger discrepancy between actual age and age equivalent based on the PIAT for Mt. Baker students than for Ballard-Fremont students.

A repeated measures analysis of variance was performed on the five pre- and post-PIAT raw subscores to determine the extent to which the academic achievement objective was met. The average pre- and post-subscores and the results of this analysis are presented in

TABLE 11. MEANS OF PIAT RAW TOTAL SCORES, GRADE PLACEMENT, AND AGE EQUIVALENTS FOR STUDENTS AT MT. BAKER - 2ND YEAR AND BALLARD-FREMONT

Area	Period	$\bar{x}$ PIAT Raw Total Score	$\bar{x}$ Grade Placement Equivalent*	$\bar{x}$ Age Equivalent
Mt. Baker 2nd Year (N = 32) $\bar{x}$Weeks enrolled = 31.99	Pre	256.41	6.8	12.0
	Post	272.97	7.7	13.0
Ballard-Fremont (N = 33) $\bar{x}$Weeks enrolled = 22.09	Pre	272.21	7.7	13.0
	Post	290.48	9.0	14.0

*Based on average score from Peabody norms of grade placement. Dunn & Markwardt. PIAT Manual, Circle Pines, Minn., American Guidance Service, Inc., 1970.

TABLE 12. AVERAGE PRE- AND POST- PIAT SUBSCORES BY ALTERNATIVE SCHOOL

Subscore	MT. Baker-2nd Year		Percent Increase	Ballard-Fremont		Percent Increase
	Pre	Post		Pre	Post	
Reading Recognition	52.03	55.38	6.4	55.52	59.18	6.6
Reading Comprehension	52.47	55.56	5.9	55.79	58.94	5.6
Math	51.59	53.56	3.8	53.52	58.88	10.0
Spelling	51.38	52.09	1.4	51.58	54.61	5.9
General Information	48.94	56.38	15.2	55.82	58.88	5.5
Total	256.41	272.97	6.5	272.21	290.48	6.7

TABLE 13. RESULTS OF ANALYSIS OF VARIANCE OF PRE/POST RAW SUBSCORES FOR MT. BAKER (MB) AND BALLARD-FREMONT (BF) STUDENTS

Source	df		MS		F	
	M.B.	B.F.	M.B.	B.F.	M.B.	B.F.
Pre/Post (A)	1	1	877.81	1101.85	21.32 $p<.01$	38.42 $p<.001$
5 Subscores (B)	4	4	54.47	224.97	1.54 NS	3.73 $p<.01$
Students (S)	31	32	1016.69	1147.95		
AB	4	4	102.39	16.16	1.59 NS	0.93 NS
AS	31	32	41.17	28.68		
BS	124	128	35.27	60.24		
ABS	124	128	64.38	17.42		
Total	319	329				

Tables 12 and 13.

Table 12 shows that the greatest increase in achievement scores for the Mt. Baker-2nd year students occurred in the General Information subscore. The change in the Math subscore represented the greatest increase for Ballard-Fremont students.

As shown in Table 13, there was a significant difference between pre- and post-PIAT subscores for Mt. Baker ($p<.01$) and Ballard-Fremont ($p<.001$) students. This is not surprising since it has been shown that the difference in total raw scores represented an increase of approximately one year in grade placement and age equivalents. It is interesting to note, however, that the five subscores also accounted for a significant ($p<.01$) amount of the variance for Ballard-Fremont students only. Thus, there are obviously some differences in the degree to which this group of students performs on the five subscores. A further analysis is intended for the twelve-month recidivism analysis to be performed in late Spring, 1976, to determine which subscore(s) exhibit significantly more improvement for Ballard-Fremont students.

It was originally intended that positive changes in specific classroom behaviors (e.g., disruptiveness, task completion, etc.) would be demonstrated. However, measures of such behaviors were not maintained by the staff of either alternative school. It is, therefore, impossible to determine the degree to which either educational model (contract method at Mt. Baker or learning-reward method at Ballard-Fremont) was successful in teaching acceptable social skills and behaviors.

A considerable amount of research in the criminal justice field has concentrated on the average results of all participants in the experimental groups. These global assessments, of course, are a necessary part of an evaluation effort. However, by their very nature, they require that one ignore possible differences between age groups, races or sexes. It is entirely possible that a given program or component may be effective for some racial group, for youths between specific ages or for males alone. Accordingly, an attempt will be made in future analyses to determine whether a relation between age, race and sex can be demonstrated with achievement scores, total academic credits earned and length of enrollment in educational program.

An analysis of variance, factorial design, for race, sex and age (as independent variables) will be performed on achievement test scores and number of academic credits earned. These latter all constitute dependent variables. Length of enrollment will be considered as a co-variant. This design permits analysis of both pooled data (Mt. Baker plus Ballard-Fremont) and unpooled data (Mt. Baker school vs. Ballard-Fremont school).

A second issue of considerable research significance is the relationship between age, race and sex variables and the nature of academic

terminations. That is, students leave the educational program for a variety of reasons, ranging from disruptive behavior to return to a traditional academic setting. It was considered useful to relate the age, race, sex variables to termination reasons to determine whether the educational program is differentially effective. Here, the attempt will be to determine whether a relationship could be demonstrated between age, race, and sex and the nature of termination. A test will be performed in the next scheduled evaluation (mid-1976) using the above variables, as well as premature terminations (operationally defined as any termination which takes place prior to the student having completed 12 weeks of academic work).

Individual youths' YSB school entry status may relate to school performance. It may be that youths who are seriously deficient in educational skills cannot or do not benefit as greatly as those who are less deficient. If this is true, a significant relationship may exist between pre-test achievement scores and premature termination from the educational component. Of particular importance is the answer to the question, "How far behind academically is a student at the time of entry into the program?"

A Chi-square test, using educational deficit (difference between appropriate school grade per age and grade placement by PIAT score) to establish high and low deficit groups, comparing premature with non-premature terminations will be performed on the students for whom adequate records were available.

An alternative method for determining the relative effectiveness of the educational function is to assess the relationship between educational gain (post-test academic grade placement minus pre-test academic grade placement) and relative educational disadvantagement (pre-test academic grade placement minus appropriate grade placement, given the youth's age). It may be that those who are least disadvantaged progress most rapidly in an alternative school setting. A one-way analysis of variance using the above variables will be performed for the next evaluation.

Finally, as a general test of the effectiveness of the alternative school, it would be useful to know whether obtained academic gains exceed those normally occurring in a traditional school setting. Data currently are not available on the average change on Peabody test scores for students within the traditional Seattle Public Schools setting. It may be that much of the observed gain is due to re-test familiarity. An attempt to obtain comparable data on regular school enrollees will be made for the next evaluation.

EMPLOYMENT AND VOCATIONAL TRAINING

From September, 1973, through July, 1975, 252 youths were referred to the employment coordinator, and 223 youths were employed. (Insufficient data were available on Mt. Baker-1st year participants,

however, and these youths have been excluded from the following examination.) For the last program year alone (September, 1974, through July, 1975), 219 youths were referred for employment, and 199 were hired. The average number of hours per week required on-the-job was 15.6 hours, and the average total number of hours worked (as of July, 1975) was 122.6 hours. For those youths who had terminated employment prior to July 31, 1975, the average number of hours of unexcused absence was 37.8 hours.

Most youths hired (93 percent) were placed on one job only, although some were given two placements and one youth had three placements. Of the youths placed, 50 percent were given Level II positions. (See Appendix I for a description of job levels.) Level I positions were assigned to 48 percent of the youths. As of July 31, 1975, 97 percent of the employed youths were earning the minimum wage of $2.10 per hour. The average wage for the remaining youths was $2.55 per hour. Only 9 percent of the youths were referred for employment as a result of the need to fulfill monetary restitution assigned by the CAB. This is somewhat surprising, since the intent of this service was primarily to assist youths to complete restitution requirements. However, 39 percent of employed youths who were given community service assignments by the CAB later were hired at the restitution site (after fulfilling CAB requirements). At the end of July, 1975, 62 percent of the youths who were hired between September, 1974, and July, 1975, were still employed. Of those youths who terminated employment for a known reason, 29 percent did so because of YSB program termination; 28 percent quit their jobs (but did not necessarily terminate from the YSB); 24 percent were fired for unsatisfactory work, non-attendance or further delinquent activities; 14 percent either found other employment or their jobs were temporary ones which had been completed; and 5 percent moved (either out of the YSB target area or from convenient proximity to the job site).

Vocational training through the YSB program involved 76 youths: 54 percent participated in a "jobology" group, and 46 percent were involved in a career exploration class. All of these youths had also received employment placements. Several other youths had been referred to Seattle Opportunities Industrialization Center (SOIC), but actual training programs had not begun as of July 31, 1975.

COUNSELING

From September, 1973, through July, 1975, 228 youths participated in some form of counseling at the YSB. For present review, however, Mt. Baker-1st year clients (N = 73) are excluded because of the lack of detailed data on counseling activities during that year. An average of 23 total consultations occurred involving each counseling client, and 16.1 average total hours were spent in consultation involving each client. On the average, then, each consultation regarding a particular client involved approximately 40 minutes.

A total of 84 youths terminated counseling during the last program year. However, only 39 of these youths had been asked to rate his/her own evaluation of the success of their counseling experience. Ratings were made on a scale from 1 (Very Detrimental) to 7 (Very Helpful). The average client rating assigned by these 39 youths was 5.4 (Slightly Helpful).

Counselors were also asked to rate the success of their counseling with each client at the time of his/her termination from counseling. This rating was provided for 75 clients. The average counselor rating was 5.2 (again, Slightly Helpful).

Counselors were also asked to rate each client's prognosis at the time of case closure or termination, on a scale from 1 (Good) to 4 (Poor). The average counselor rating provided for 81 clients was 2.25 (Fair).

SUPERVISED RESTITUTION

From King County Juvenile Court, 18 youths were referred for YSB supervision of restitution. The mean severity (see Appendix II for description) for the referral offenses was 4.94. As of July 31, 1975, 81 percent of these youths had completed their assignment, and 13 percent were in the process of completing. Of those youths who had completed their assignments by July 31, 1975, the average length of time taken for completion was 4.7 weeks.

REFERRAL

During the period September, 1973, through July, 1975, 62 YSB clients were provided with referrals for services beyond the scope of the YSB. This does not include the referral services provided to youths who did not become participants in the program. Data were not requested or maintained on this particular service aspect of the YSB because it was viewed as a necessary operational function.

PROGRAM IMPLEMENTABILITY

The YSB System is attempting to test the hypothesis that uniform application of the community accountability process to law-violating youths from a particular area will reduce the likelihood of subsequent criminal behavior for those youths appearing before the board, as well as providing a deterrent to other youths in the area through an increased expectation of accountability. An adequate test of this hypothesis requires that a high proportion of youths from the area who commit offenses be referred to the accountability board. Therefore, the close cooperation of the police and court in maximizing referrals is an operational necessity to implementing and continuing this test.

The recidivism analyses which follow in the Results Section are based on those youths who entered the YSB System no later than February 28,

1975. This insured a minimum of six months follow-up from program entry. The following description of the potential pool of juvenile offenders referrable to the YSB is based on the period September 1, 1974, through March 31, 1975. Thus, with the exception of referrals received in March, these referrals are the same as those used in the follow-up analyses.

During the first year of operation, 15 CAB referrals were received in eight months. From September, 1974, to March, 1975, the accountability boards received 229 referrals, 211 of which came from the Juvenile Court.

From September, 1974, through March, 1975, within YSB census tracts, there were 525 SPD juvenile contacts, 328 referrals to Juvenile Court and 211 referrals by the Court to the YSB (40 percent of the total contacts, 64 percent of the referrals to Court). Of the 211 Juvenile Court referred cases:

100 were heard by CAB's (47.4 percent)
35 are pending investigation or final disposition (16.6 percent)
30 were inappropriate for CAB hearing (14.2 percent)
13 youths denied guilt (6.2 percent)
13 youths lived out of the YSB area (6.2 percent)
12 were referred for monitoring only (5.7 percent)
6 youths were of inappropriate age (2.8 percent)
2 declined by CAB (1.0 percent)

These data indicate that a substantial number of offenders were being referred to the accountability board, and that a test of hypothesized effects is appropriate.

CRIME IMPACT

A. Evaluation Design

The goal of the Seattle Youth Service Bureau (YSB) System is to reduce juvenile crime in selected target areas of the City of Seattle. The implementation of the YSB's, in conjunction with Community Accountability Boards (CAB's), was designed to achieve this goal through both direct and indirect effects upon juvenile offenders. The direct, or primary, effect of preventing an offender from committing additional crimes was hypothesized to occur when individual youths were obliged to perform either monetary or community service restitution for their offenses. The indirect, or secondary, effect of preventing others from committing crimes was hypothesized to occur by locating accountability boards within YSB census tract areas; the accountability boards would deal with all (or as many as possible) of the juvenile offenders residing within those areas, regardless of where the actual offense may have occurred. It was assumed that the knowledge of such a program would become known to the youths in the YSB area and serve as a deterrent.

Since the program design involved the "treatment" of all juveniles residing in the bureau areas, the preferred evaluation design of assessing crime impact by randomly assigning youths to the accountability board process (experimental treatment) and the traditional criminal justice process (control treatment) was not possible. The evaluation design chosen consisted of a series of non-equivalent control group design comparisons (Campbell and Stanley, 1963), and comparisons of juvenile offenders' recidivism with actuarial predictions of recidivism (Youthful Offender Criminal History Survey Project, 1976).

To measure crime impact, three measures were chosen: individual youths' Seattle Police Department contact histories (a contact being equivalent to an adult primary, or major, charge); total number of juvenile contacts, by census tract of offenders' residence; and the reported occurrence of residential burglary, larceny and auto theft, by census tract, regardless of whether suspects may have been identified or arrested.

The reasons for choosing these particular measures are as follows: To assess the program's direct effect upon crime, the most logical measure is some index of treated youths' subsequent criminal behavior. However, the point at which this measure within the criminal justice system is made is a source of some controversy. Some suggest that to insure that those arrested are truly guilty, only those youths adjudicated guilty be counted. Others suggest self-report is the only truly valid index. Data reported by Gold (1975) indicate that, based upon a self-report study, only 3 percent of juvenile crimes result in an actual arrest. However, other studies of self-report crime data raise serious questions regarding the

accuracy and validity of such measures. Because of the cost factors and questionable reliability and validity of self-report measures, it was decided to deal with official criminal justice system data as a measure of recidivism. Keeping in mind Sellin's (1931) statement that "... the value of a crime rate for index purposes decreases as the distance from the crime itself, in terms of procedure, increases," police contact or charge data were chosen as the index of juvenile recidivism. This includes cases in which arrests initially were made and then investigated and released. In 1974, 9.2 percent of juvenile contacts within the City of Seattle were of this nature.

To assess the impact of the program's indirect effect, total juvenile contacts of youths residing in the YSB census tracts were chosen to be compared with the contact rate for non-YSB census tracts within Seattle. It was felt that, to the extent that the program had an effect of practical significance, it should be detectable on a census tract basis. The reason for choosing police contact data was the same as that given in the preceding paragraph.

The third measure, the reported number of residential burglary, larceny and auto thefts, was chosen to provide a relatively independent measure of crime, and to insure that the conclusions based upon police contact data were not misleading. Whereas arrest or contact data may represent as little as 3 percent of actual crime committed (Gold, 1975), crime victimization studies conducted both nationally and in Seattle (U.S. Department of Justice, 1975a, 1975b; Schram, 1973; Mathews, in preparation) indicate that residential burglary is reported in approximately 45-55 percent of victimizations; larceny, approximately 20-40 percent; and auto theft, approximately 70-90 percent of all victimizations. In addition, reports of crime occurrence are less susceptible to change due to changes in police procedure within the program area. That is, one might suggest that changes in police contacts within the YSB area may be caused by either decreased or increased activity in apprehending juveniles, rather than program effects. (There has been no known change in police manpower or activities in the project area that would substantiate such a suggestion.) However, it would be unlikely that the presence of the YSB accountability board system within various census tracts would be associated with police responding to a smaller or larger proportion of victim calls within those areas than the rest of the City.

The adequacy of the choice of this measure requires two assumptions: first, that juveniles be involved in the commission of these crimes; and second, that these crimes be committed by local residents. If these assumptions can be met, then the three selected crimes should provide an independent measure to assess the combined general and specific deterrent value of the program.

An analysis of the age of individuals arrested and charged for burglary, larceny and auto theft by the Seattle Police Department indicates that 75 percent of burglary, 69 percent of larceny and 78 percent of auto theft charges involve juveniles. Although these figures

do not necessarily mean that a corresponding percentage of all such crimes are committed by juveniles, it none the less does reflect crimes which have a high degree of juvenile involvement (4,301 separate juvenile charges of the total 10,410 juvenile contacts in Seattle in 1974).

The second assumption, that crimes are committed by local residents, is substantiated by Turner (1969) and Mathews and Mobley (in preparation). Both of these studies measured the distance between juvenile offenders' places of residence and the location of the commission of an offender's crime. Both Turner (using 502 cases) and Mathews and Mobley (using 8,990 cases) found that over 50 percent of all juvenile crimes occurred within less than half a mile from juvenile residences.

B. Objectives

Using measures cited in the evaluation design above, the following crime impact objective questions were addressed: One, have reported residential burglary (hereafter referred to as burglary), larceny and auto theft decreased within the program areas, when compared with the rest of the City? Two, have total juvenile contacts decreased within the program areas, when compared with the rest of the City? And, three, has juvenile involvement in the program resulted in lowered recidivism, and how does such change relate to different program services and components?

1. Objective One, Data Analysis

a. Objective One specified in the evaluation design was the following:

> Given the implementation of the Youth Service Bureau System in selected census tracts of the City of Seattle, there will be a statistically significant relative reduction in the reported incidence of selected Part I crimes of residential burglary, auto theft and larceny as indicated by official Seattle Police Department reports when compared with the remaining census tracts in Seattle.

This comparison was made separately for each bureau area, by crime type. Because of time pressures and the preliminary nature of this report, more sophisticated and sensitive analyses of variance and multivariate analyses of variance (combining multiple dependent variables) were not used. It is anticipated that the next evaluation (expected in early summer, 1976) will include these.

The basic design for this analysis was a non-equivalent control group design, with the individual bureau area designated as the experimental group, and the rest of Seattle minus all bureau areas as the control group.

Measures consist of monthly crime rates for each area over a 12-month period. The pre-measures (the standard base year for this report and all following YSB evaluations) are defined as September 1, 1972, through August 31, 1973, or the twelve months immediately prior to the first year of YSB operation (in Mt. Baker). Using comparable months from the base year to the current year (September, 1974, through August, 1975), percent change scores were derived from monthly reports of the number of burglary, auto theft and larceny incidents. This was done to control for seasonal fluctuations in crime data and to obtain measures on a comparable scale. These scores were computed separately for each of the three YSB areas and Seattle as a whole minus the YSB areas (S-). In the case of the burglary analysis, "S-" was comprised of Seattle minus all YSB areas and minus the SPD "Charlie" sector, the site of a successful burglary reduction project during the evaluation period. Table 14 presents these data and the results of t-tests performed for each YSB target area vs. S-.

In examining these and other results, it should be noted that the Ballard-Fremont YSB did not begin operations until October, 1974, and the Southeast YSB did not begin operation until November, 1974.

When data were analyzed using a paired t-test on monthly percent change scores for each of the YSB areas vs. S- areas, burglary was found to show a significantly lower ($p<.05$) increase in Mt. Baker than the rest of the City. The increases in reported burglaries in Ballard-Fremont and Southeast were shown to be less than in S-, although the differences were not statistically significant.

Auto theft increased at a faster rate for the Mt. Baker and Southeast YSB areas than for the City, but again, the difference is not statistically significant; nor is the decrease in auto theft in Ballard-Fremont (-8 percent) significantly different from what occurred in S-. For this particular analysis, it should be noted that the number of offenses reported on a monthly basis is small and extremely variable. Because of this, non-significant findings should be interpreted with more caution than normally.

The larceny analysis was significant for Mt. Baker ($p<.05$) in that this YSB area has shown a proportionately lower increase than the rest of the City. Ballard-Fremont also showed significantly less of an increase in larceny ($p<.05$) than the rest of the City. The Southeast YSB had a non-significantly greater increase in larceny ($p=.12$) during this period.

TABLE 14. NUMBER OF REPORTED BURGLARIES, AUTO THEFTS, AND LARCENIES IN YSB TARGET AREAS VS. SEATTLE MINUS THE TARGET AREAS (S-) FROM SEPTEMBER, 1972, THROUGH AUGUST, 1975

Offense	Target Area	Sept. 1972 through Aug. 1973	Sept. 1974 through Aug. 1975	Percent Change	Paired T-Test Probability (One-tailed)
Reported Residential Burglary	Mt. Baker	433	481	+11	$p < .05$
	Ballard-Fremont	370	411	+11	$p < .12$
	Southeast	543	679	+25	$p < .17$
	S-*	6,055.3	8,490.5	+40	-------
Reported Auto Theft	Mt. Baker	74	111	+49	$p < .08$**
	Ballard-Fremont	270	249	- 8	$p < .13$
	Southeast	122	151	+24	$p < .28$**
	S-	3,057	3,507	+15	-------
Reported Larceny	Mt. Baker	401	436	+ 9	$p = .035$
	Ballard-Fremont	806	947	+17	$p < .032$
	Southeast	483	662	+37	$p < .12$**
	S-	18,497	23,995	+30	-------

*S- for the burglary analyses represents Seattle minus the YSB target areas and "C" sector, the location of a burglary reduction project.

**When the direction of change in reported incidents is opposite from what was predicted, reported probabilities are given for a two-tailed test.

The preliminary results indicate that the operation of the Mt. Baker YSB during its second year was associated with a significant relative decrease in two of the three Part I offenses commonly assumed to be committed primarily by juveniles. In addition, during its first year of operation, Ballard-Fremont has shown a significant reduction in one of these offenses. Due to the relatively short time period being examined for Ballard-Fremont and Southeast, it is not surprising that more significant differences were not found to be associated with the operation of the latter YSB's.

When individual offenses are added across YSB areas, the following results are obtained: Burglary increased 17 percent (from 1346 in the pre-period to 1571 in the post-period) in the total YSB area, vs. 40 percent for the rest of the City. This difference is significant at the $p < .001$ level ($x^2 = 20.27$, $df = 1$). Larceny increased 21 percent (1690 to 2045) in the YSB area, while for the rest of the City larceny increased 30 percent. This was significant at the $p < .05$ level ($x^2 = 4.11$, $df = 1$). While auto theft increased 9.6 percent (466 to 511), this was non-significantly different from the 15 percent increase for the rest of the City ($x^2 = 0.43$, $df = 1$).

When all three offenses are combined across YSB areas and compared with City totals, the total burglary, larceny and auto theft rate increased 17.8 percent in the bureau areas (3502 to 4127), while the rest of the City increased 30.4 percent (27,609.3 to 35,992.5). By chi-square, this was significant at the $p < .001$ level ($x^2 = 17.22$, $df = 1$).

b. There are two possible alternative explanations for these results:

First, a regression effect (e.g., Campbell, 1969), or that crime levels were uncharacteristically high during the pre-period and would have come down regardless of program intervention because they were, in a sense, "artificially" high to begin with; or second, the changes reflect a long-term downward trend that existed prior to program intervention. Both these explanations would require that pre-experimental area trend data be higher than pre-control area data. To determine if either of these explanations might be correct, the number of annually reported burglaries, auto thefts and larcenies in the YSB areas and S- were transformed into standardized (z) scores. This served to eliminate the disparity in numbers due to population size differences within the various areas, and to place the crime rate data on the same scale, with the same relative variation. Figures 1, 2 and 3 show these standardized figures for the three YSB areas and S- from 1968 through 1975. (As December, 1975, data were unavailable at the time of this report, the 1975 total was estimated by adding 1/11 of the January-November

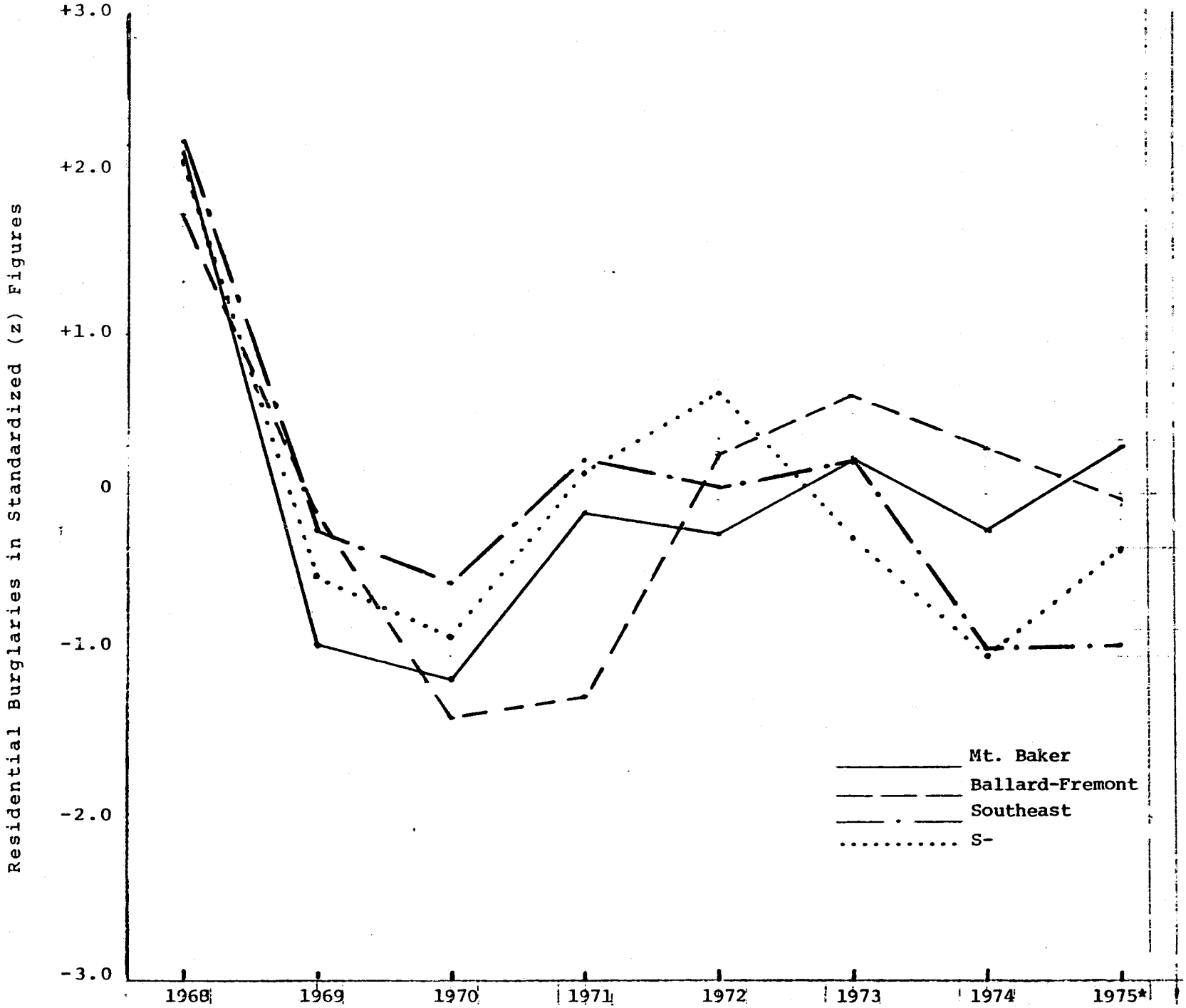


FIGURE 1. Number of reported burglaries (recorded in standardized figures) in YSB target areas and S- from 1968 through 1975

*Includes estimated figures for December, 1975

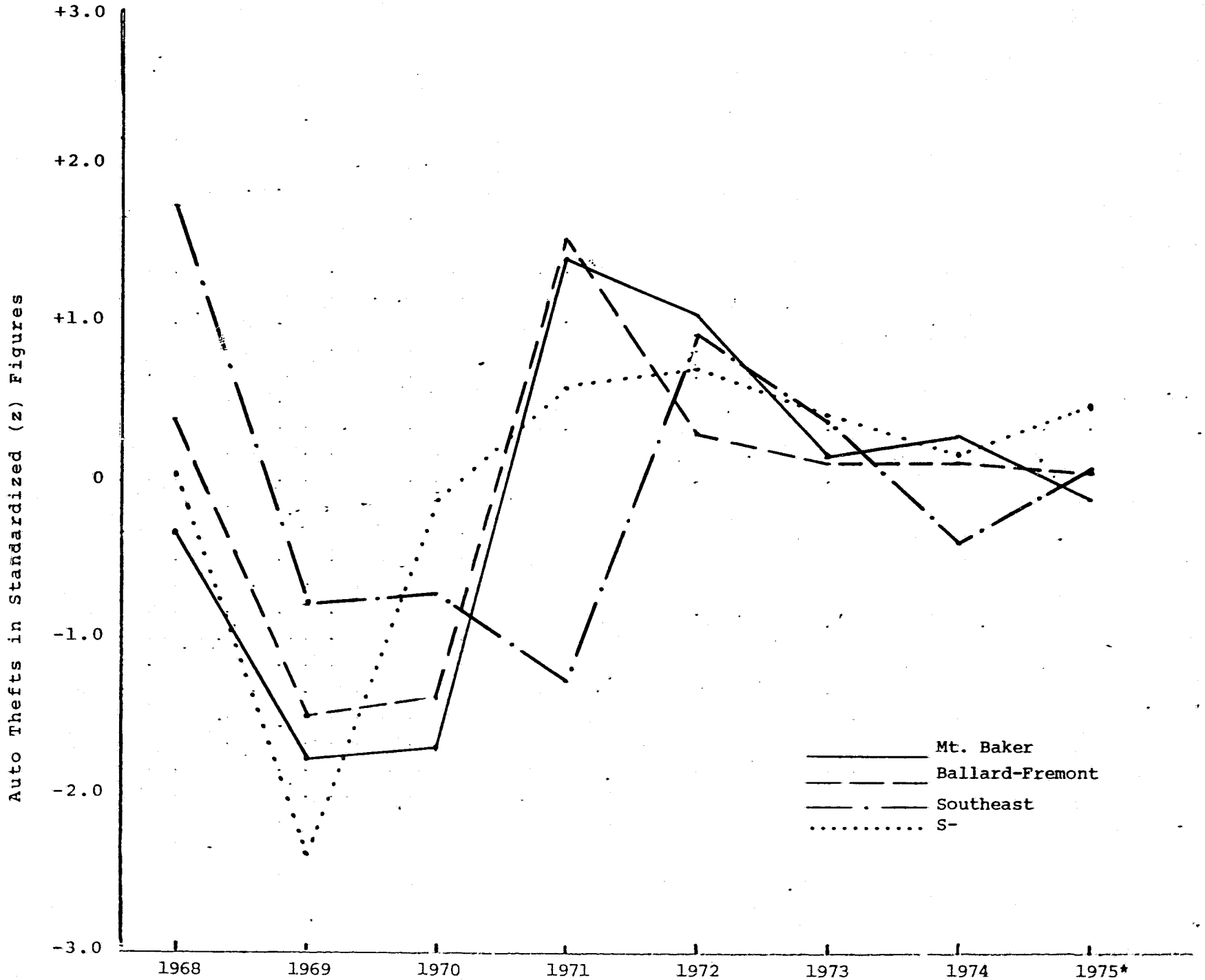


FIGURE 2. Number of reported auto thefts (recorded in standardized figures) in YSB target areas and S- from 1968 through 1975

*Includes estimated figures for December, 1975

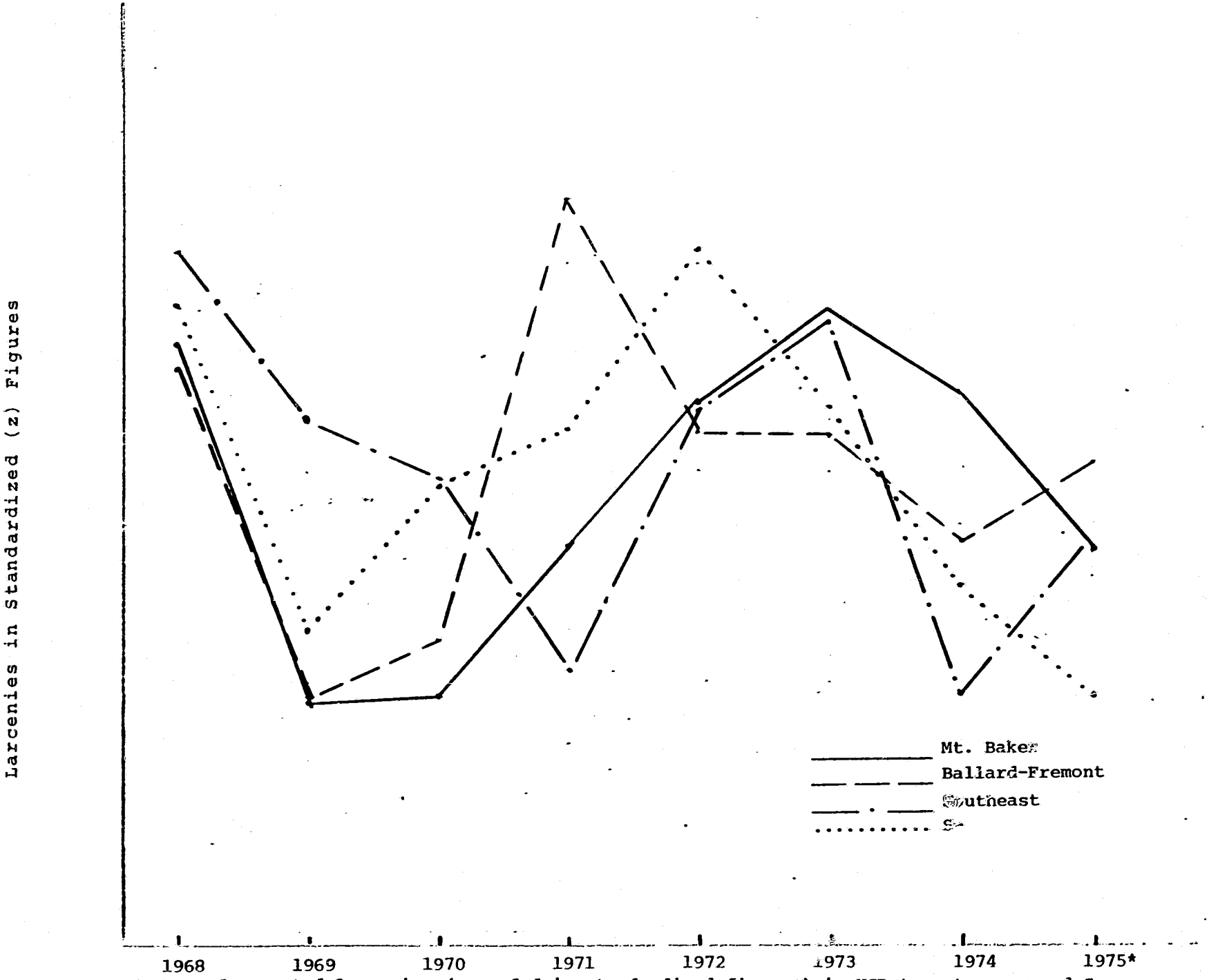


FIGURE 3. Number of reported larcenies (recorded in standardized figures) in YSB target areas and S- from 1968 through 1975

*Includes estimated figures for December, 1975

figure to the total for that period.)

Figures 1, 2 and 3 indicate very little difference in the trends for reported burglary, auto theft and larceny between the YSB areas and S- for the period 1968 through 1973, the six years preceding the operation of the first YSB. Because of the low number of data points to perform a test for different slopes, a statistical analysis was not performed. It does not appear valid, therefore, to argue that the reason for the significant decrease in reported crime in YSB areas may be been due either to continuation of a downward trend which already had been established, or regression artifact.

2. Objective Two, Data Analysis

a. Objective Two specified in the evaluation design was the following:

> Given the implementation of the Youth Service Bureau System in selected census tracts in the City of Seattle, there will be a statistically significant relative reduction in the number of Part I and total juvenile contacts when compared with the rest of the City (S-).

This comparison was performed in the same manner as in the first objective. Monthly percent change scores were again computed from official SPD monthly reports of the number of juveniles contacted who reside in YSB census tracts and in Seattle minus those census tracts. Monthly data were unavailable for juvenile contacts prior to 1973, so the base year in this analysis is January through August, 1973; therefore, a complete 12-month period for the comparison year was not possible.

Table 15 presents the results of t-tests performed on these data for each YSB target area vs. S-.

With the exception of Southeast showing no change in Part I contacts, all three YSB target areas showed decreases in both Part I and total contacts, compared with increases in S-. This difference was statistically significant (using $p = .05$ as the minimum level for significance) in the Mt. Baker area. Thus, such decreases would be expected to occur by chance or random fluctuation in the data less than 5 times per 100. While the trends in the data for Ballard-Fremont and Southeast are in the desired direction, it is not surprising that the differences were not statistically significant, given the shorter period of time they have been operating.

TABLE 15. NUMBER OF PART I AND TOTAL (PART I & II) JUVENILE CONTACTS OCCURRING IN YSB TARGET AREAS VS. S- FROM JANUARY, 1973, TO AUGUST, 1975

Contacts	Area	# Contacts Jan.-Aug. 1973	# Contacts Jan.-Aug. 1975	Percent Change	Paired T-Test Probability (One-tailed)
Part I Contacts	Mt. Baker	223	159	-29	$p < .005$
	Ballard-Fremont	138	132	- 4	N.S. ($p=.25$)
	Southeast	154	154	0	N.S. ($p=.46$)
	S-	2065	2246	+ 9	----------
Total Contacts	Mt. Baker	369	304	-18	$p < .01$
	Ballard-Fremont	383	339	-11	N.S. ($p=.18$)
	Southeast	357	341	- 5	N.S. ($p=.36$)
	S-	5112	5421	+ 6	----------

When Part I contacts for all three bureau areas are combined and compared with the rest of the City, the overall bureau area decline of -13.6 percent (from 515 to 445) is significantly different from the 9 percent increase in S- ($x^2 = 10.37$, df = 1, $p < .01$). A similar analysis for total Part I and II contacts resulted in a statistically significant decline of -11.3 percent (from 1109 to 984) when compared to the 6 percent increase for S- ($x^2 = 13.85$, df = 1, $p < .001$).

b. Two possible alternative explanations--other than program effect--for these results exist: First, these changes may be due to population changes; or second, that regression or trend effects such as those mentioned in the evaluation of Objective One influenced the analysis.

Two supplementary analyses were performed to examine these two possibilities.

While it may be argued that the decrease in reported crime and in juvenile contacts in the YSB areas may be due to population decreases in those areas, there appears to be very little difference between the target areas and S-, in terms of population decreases, as shown in Table 16. These data represent the 1973 and 1974 Estimated Population figures developed by the Seattle Department of Community Development, based on the 1970 U.S. Census data.

The possibility of either a regression artifact or a pre-existing downward trend was investigated by examining annual juvenile contact rates within program and other areas between 1968 and 1973. This was done in the same manner that trends in reported crime for Objective One were analyzed. (See Figure 4.)

An examination of the data indicates that a regression artifact <u>may</u> have been present in the Mt. Baker YSB area. However, for the other two YSB areas, this does not appear likely.

3. <u>Objective Three, Data Analysis</u>

Objective three specified in the evaluation design was the following:

> Given a juvenile offender's participation in a YSB, significantly fewer numbers of youths will be shown to recidivate as compared with the predicted probability of recidivism.

Because the manner of program implementation did not allow

TABLE 16. ESTIMATED POPULATION CHANGE FROM 1973 TO 1974 IN YSB TARGET AREAS VS. SEATTLE MINUS TARGET AREAS (S-)

	Mt. Baker	Ballard-Fremont	Southeast	S-
1973	11,419	29,621	23,539	450,421
1974	11,128	29,075	22,912	443,885
Percent Change	-2.5	-1.8	-2.7	-1.5

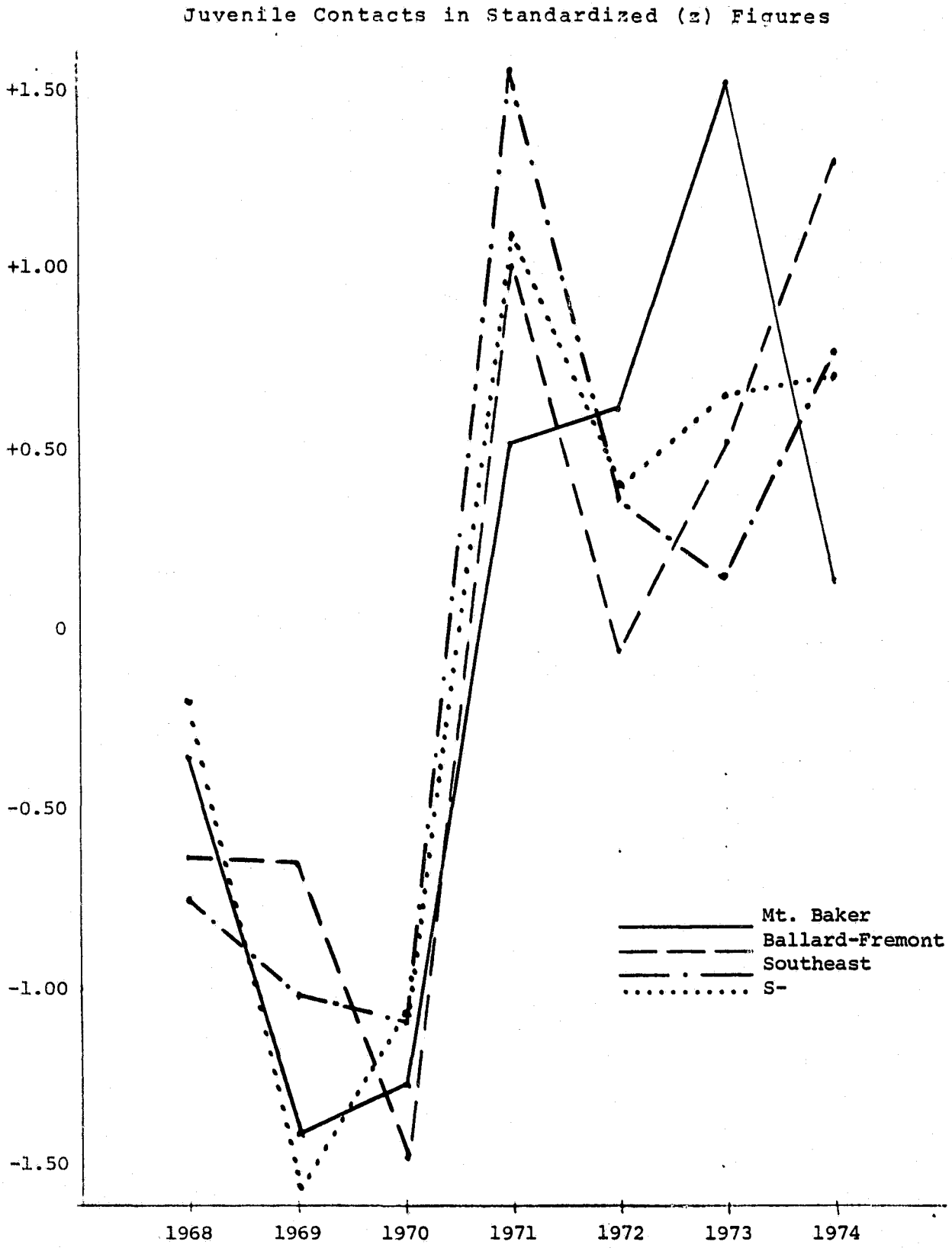


FIGURE 4. Number of Part I and Part II juvenile contacts in standardized (z) scores for YSB target areas and S- from 1968 through 1974

random assignment of youths to experimental and control groups, which would be the preferred evaluation design, actuarial predictions of recidivism were used to create a "statistical" control group for comparison purposes.

As a measure of the extent to which the YSB System reduces individual client recidivism, probability tables developed through the Seattle Law and Justice Planning Office Youthful Offender Criminal History Survey Project (1976) were employed. These tables, based on approximately 90,000 juvenile police contacts occurring in Seattle over a 20-year period, provide the probability of a given youth committing a subsequent offense, based on the age, race, sex, offense and number of prior offenses. For example, the probability of a black male, age 17, who has been contacted for a burglary which is his second police contact, being contacted for a third offense of any type within six months is .414. Predictions were made for 6-, 12- and 18-month followups. However, for the present YSB analysis, only the 6-month predictions were used, due to the small number of youths for whom followups of 12 or 18 months were possible. In addition to the probability of committing an offense, the tables include the average number of offenses committed by those youths who did recidivate within the 6-, 12- and 18-month followup periods.

Preliminary results on the accuracy of such actuarial predictions of recidivism for randomly selected, non-treated juvenile offenders living outside the YSB areas indicate that the predictions are not significantly different from actual recidivism for a 6-month followup. That is, they neither over- nor under-predict recidivism to any appreciable extent for a sample (n = 45) of the general population of juvenile offenders. More extensive validation efforts of the actuarial tables are currently in progress and will be reported in the next evaluation.

One possible concern regarding the use of this sort of analysis, given that YSB clients are not randomly entered into the program, is the possibility of a selection bias. This may have occurred at either one of two points in the referral process: (1) screening on the part of the King County Juvenile Court workers, resulting in only the least-likely-to-recidivate youths being referred to the YSB; and (2) screening on the part of the YSB staff, resulting in acceptance of only those youths least likely to recidivate.

To determine if some selective screening was occurring, a random sample of 44 youths residing in the YSB areas who were not referred to or accepted by the bureaus was selected. A comparison of 6-month actual and predicted recidivism for this group resulted in a non-significantly

lower (x^2 = 3.18, df = 1, $p < .10$) actual recidivism than predicted. At this time, the analysis indicates that a selection bias is probably not occurring. However, given the relatively small number of youths in the sample, a more complete analysis involving more non-YSB youths within the YSB areas would be appropriate. Such an analysis is currently underway and will be reported in the next evaluation.

Objective Three was evaluated for the total program rather than by individual bureaus to insure that sufficient numbers of juvenile recidivism records would be available. For the same reason, only 6-month recidivism analyses were performed. For an explanation of the development and use of the recidivism probability tables in this analysis, see Appendix III.

Using actual vs. predicted 6-month recidivism data, comparisons were performed first for the total YSB population available for follow-up (n = 170). These data are presented in Table 17.

Chi-square tests performed on the data in Table 17 indicate that significantly fewer ($p = .003$) youths recidivated within six months than would be predicted to recidivate. In addition, taking the youths who appeared before a CAB as a separate group for all three bureaus combined (see Table 18), a statistically significant difference ($p = .002$) was demonstrated between actual and predicted recidivism. In this case, only 4 out of 72 CAB youths committed subsequent offenses within six months. When those youths having no CAB participation (i.e., Service Only youths) were considered as a separate group, no difference was found between actual and predicted recidivism. It appears, therefore, that the CAB experience (but not participation in YSB services only) is significantly related to reduced recidivism, at least during a 6-month followup period.

In addition, a Chi-square test comparing CAB and Service Only youths for actual recidivism showed a significant difference ($p < .01$). However, when predicted recidivism was compared, the two groups were not significantly different. Although not definitive, these two analyses provide some indication that CAB appearances are more effective than provision of services.

An additional means to evaluate a reduction in recidivism is to determine if those youths who do recidivate commit significantly fewer offenses than would be predicted.

TABLE 17. YSB CLIENT RECIDIVISM FOR A SIX-MONTH FOLLOWUP

Youths	# Youths Followed Up	# Actual Recidivators	# Predicted to Recidivate
All Youths	170	22	43.2
CAB Youths	72	4	21.0
Non-CAB Youths	98	18	21.1

TABLE 18. CAB CLIENT RECIDIVISM FOR A SIX-MONTH FOLLOWUP

YSB	# Youths Followed Up	# Actual Recidivators	# Predicted to Recidivate
Mt. Baker 2nd Year	20	2	5.8
Ballard-Fremont	25	1	7.6
Southeast	25	1	7.0
Mt. Baker 1st Year	2	0	0.6
Total	72	4	21.0

Table 19 presents data on the number of offenses per recidivator for all YSB clients and CAB clients who met the same criteria as above, with the additional requirement that they did, in fact, commit at least one offense during the follow-up period. This additional requirement insures that the number-of-offenses-per-offender analysis is statistically independent from the results of the number-of-recidivators analysis. Table 19 shows there was no significant difference between actual and predicted number of offenses when all youths who recidivated within six months are considered. However, when just CAB youths were examined, those who did recidivate were contacted for significantly fewer offenses than predicted. Again, the CAB experience appears to be significantly related to recidivism, in terms of the number of offenses for which youths were contacted within six months after the referral offense. This result, however, must be interpreted with extreme caution because of the very small number of cases (four) under consideration. It is anticipated that results obtained after 12 months of followup (thus increasing the number of cases for followup after six months) can be accepted with more confidence.

The analyses performed so far in relation to Objective Three (reduction of individual recidivism) have been relatively global; that is, all bureaus and all services combined. However, for formulative evaluation or program modification purposes, it is desirable that relationships between the various service components or CAB appearances and reduced recidivism be demonstrated. In other words, it is necessary to determine the relationship between a dependent or criterion variable (in this case, recidivism) and a set of independent variables (CAB and/or services received), if policy decisions regarding the exclusion of any service(s) from the YSB System are to be made. Included in this analysis were only those youths who had either committed no pre-entry offense or had committed an offense no longer than three months prior to YSB entry. Excluded were youths who could not be matched in the probability tables. In addition, only those youths who had a followup of at least six months from date of entry or date of pre-entry offense were included in the analysis.

A stepwise multiple regression analysis was performed on data for YSB youths to determine the effects of each of the services received and CAB appearances on whether or not a youth recidivated. A stepwise regression analysis allows for the selection of the variable or set of variables (specific services, CAB) that best predicts recidivism, with the exclusion of non-significant predictor variables. In this analysis (see Table 20), actual recidivism (yes-no) during

TABLE 19. NUMBER OF OFFENSES PER OFFENDER FOR YSB CLIENTS WHO RECIDIVATED WITHIN SIX MONTHS

Youths	# Who Recidivated	Number of Offenses per Recidivator		One-tailed T-Test Probabilities
		Actual	Predicted	
All Youths	22	2.00	2.36	p=.148 (N.S.)
CAB Youths	4	1.25	2.52	p < .02

TABLE 20. STEPWISE MULTIPLE REGRESSION ANALYSIS OF RECIDIVISM AS A FUNCTION OF SERVICE COMPONENT INVOLVEMENT

Variable	F of Single Variable	Significance of Variable	Multiple R of Total Variable
Predicted Recidivism	22.381	< .001	.343
Counseling	5.688	.018	.383
Employment/Vocational Training	4.472	.036	.411
Supervised Restitution	1.656	.200	.421
Accountability Appearance	4.823	.029	.448
Alternative Education	0.978	.324	.453
Referral to Other Agencies	0.731	.394	.457

the 6-month followup was the dependent variable. Predicted recidivism was a "forced" first step independent variable, with participation (yes-no coding) in the services of Counseling, Employment/Vocational Training, Supervised Restitution (from juvenile court), CAB Appearance, Alternative Education and Referral to other agencies designated as "free" independent variables. This procedure of forcing the predicted recidivism as the first variable served to equate statistically individuals involved in different service components. The predicted recidivism correlated significantly with actual recidivism ($r = .343$, $df = 168$, $p < .01$) and controlled approximately 12 percent of the variance. This analysis resulted in three variables (Counseling, Employment/Vocational Training and CAB Appearance) showing significant relationships with whether or not a youth recidivated. Counseling was positively related to recidivism ($p = .02$). In other words, it appears that those youths who received YSB counseling services were actually more likely to commit subsequent offenses than would be predicted. Both CAB Appearance and Employment/Vocational Training were significantly negatively related to whether or not a youth committed subsequent offenses ($p = .03$ and $.04$, respectively). Thus, youths who were involved in either of these two aspects of the YSB were less likely to be contacted for subsequent delinquent acts within six months. These results, however, will be more statistically reliable given a longer followup period (12 months), which is anticipated for the 12-month evaluation planned for mid-1976.

SUMMARY

Based upon the present evaluation, the following crime impact conclusions can be made regarding the second-year operation of the Mt. Baker YSB and the first-year operation of the Ballard-Fremont and Southeast YSB's.

1. Reported crime with a high juvenile involvement is down (relative to the rest of the City) in Mt. Baker (significantly in two of three crime indices). In Ballard-Fremont, crime is significantly down in one of the three indices. In Southeast, no statistically significant trends have been established.

   It should be noted that the favorableness of the above analyses is directly related to the length of the bureaus' operation, in that Mt. Baker YSB began in September, 1973, while Southeast YSB began in November, 1974.

2. Total numbers of juveniles contacted for crimes within the YSB census tracts is down significantly within the Mt. Baker area. In the Ballard-Fremont and Southeast YSB areas, juvenile contacts have shown a non-significant decrease, compared to the rest of the City. Some of the reduction in Mt. Baker may be due to statistical artifact. (See Results section for more complete details.)

3. YSB client recidivism rates are significantly lower than comparisons with actuarial recidivism rates. When clients are separated into accountability board appearance groups vs. YSB service only groups, the reduction is significant for only the accountability board youths.

APPENDIX I.

LEVELS OF EMPLOYMENT

Level I - YSB Youth Service Aide

All clients requesting employment services are initially hired as YSB Youth Service Aides. This placement is working at a bureau and is short-term in nature, generally not more than a month. With the client working at the bureau, YSB staff have the opportunity to observe first-hand the work habits of the client. This placement provides staff the opportunity to assist the client in any deficiencies in work habits which might become apparent and gives staff the chance to determine the type of job the client is most able to perform, and in what setting he/she works best. In short, this is a trial period. Volunteer community service restitution assignments can be substituted for Level I placement.

Level II - Community Youth Service Aide

Once the client has demonstrated good work habits, through Level I placement or through successful completion of a volunteer community service restitution assignment, the client is placed in a non-profit community agency or in subsidized employment in private business. The Employment/Vocational Training Coordinator and the Employment/Restitution Specialists are responsible for developing placements in community agencies. In these jobs, the YSB assumes financial responsibility and monitors the placement. The agency assumes responsibility for providing the client with a real work situation and provides supervision, as if the aide were an agency employee. The areas of responsibility are carefully explained to the participating agency. This step in the process provides the client with a real work experience, while the client is closely monitored by YSB staff who are able to work on any problems which might arise. The Level II assignment must be long enough for the client to exhibit the ability to sustain a job.

Level III - Subsidized Private Sector Jobs

Since the employment process is not a totally rigid procedure, some clients are allowed to skip Level II and go directly from Level I to Level III. In the same manner, some clients bypass Level III and go directly from Level II to Level IV. Level III positions are those in the private sector which are subsidized by the YSB, through service agreements.

Level IV - Unsubsidized Private Sector Jobs

After successfully completing Level I and Level II, or their substitutes, the client is assisted in placement on jobs developed or

identified in the private sector. It is the responsibility of the Employment/Vocational Training Coordinator and the Employment/Restitution Specialists to develop the jobs. These positions are paid by the businesses which employ the clients.

APPENDIX II.

SAR SEVERITY SCALE (REVISED)

S.P.D. CODE	INDEX	TYPE OF CONTACT	CONTACT VALUE	SERIOUSNESS VALUE
0102	1	MURDER	1	7
0104	1	NEGLIGENT MANSLAUGHTER	1	4
0201	1	RAPE	1	7
0202	2	CARNAL KNOWLEDGE OF A FEMALE	1	4
0301	1	ROBBERY	1	7
0402	1	ASSAULT / AGGRAVATED	1	7
0502	1	BURGLARY	1	5
0503	2	POSSESSION OF BURGLARY TOOLS	1	4
0601	1	GRAND LARCENY	1	5
0602	1	PETTY LARCENY	1	4
0603	1	BOAT THEFT	1	5
0607	1	LARCENY / PICKPOCKET	1	4
0608	1	LARCENY / PURSE SNATCH	1	5
0609	1	LARCENY / SHOPLIFTING	1	4
0611	1	LARCENY / CAR PROWL	1	4
0612	1	LARCENY / AUTO ACCESSORIES	1	4
0613	1	BICYCLE THEFT	1	4
0614	4	BICYCLE FOUND	0	0
0619	1	LARCENY/MISC INC TILL/TAP	1	4
0702	1	AUTO THEFT	1	6
0704	2	RIDING IN STOLEN AUTO/BOAT	1	4
0750	2	AUTO THEFT/ OUTSIDE	1	6
0751	2	LARCENY BURG ROBB / OUTSIDE	1	5
0803	1	VERBAL THREATS	1	3
0804	1	RESISTING INTEFER/OBSTR OF P/O	1	6

S.P.D. CODE	INDEX	TYPE OF CONTACT	CONTACT VALUE	SERIOUSN VALUE
0805	1	HAZING INCITING ETC	1	5
0809	1	ASSAULT NON/AGGRAVATED	1	7
0908	2	CREDIT CARD FRAUD / USE	1	5
0909	2	COUNTERFEITING	0	0
0919	2	FORGERY	1	5
1002	2	CHECK FRAUD NSF ACC CLOSED	1	3
1007	2	FALSE REPRESENTATION	1	3
1009	2	MISCELLANEOUS FRAUD	1	5
1102	2	POSSESSION OF STOLEN PROPERTY	1	4
1104	2	SALE OF STOLEN PROPERTY	1	4
1200	2	EMBEZZLEMENT	0	0
1202	2	POSSESSION OF DEADLY WEAPON	1	4
1204	2	CARRYING CONCEALED WEAPONS CCW	1	4
1209	2	MISCELLANEOUS WEAPONS CODE	1	3
1400	2	WINDOW PEEPING	1	2
1401	2	MOLESTING/ FOLLOWING/ ETC	1	5
1402	2	SODOMY	1	5
1403	2	OBSCENE PHONE CALLS	1	2
1404	2	INDECENT EXPOSURE	1	3
1405	2	INDECENT LIBERTIES	1	3
1406	2	SEDUCTION	0	0
1407	2	LEWDNESS / FORNICATION	1	2
1408	2	CARNAL KNOWLEDGE OF A MALE	0	0
1409	2	SEX OFFENSES/MISC INCEST	1	3
1501	2	ABANDONMENT OF A CHILD	0	0
1601	2	POSS USE SALE HERION/OPIUM/ETC	1	6
1602	2	POSS USE SALE MARIJUANA	1	2

S.P.D. INDEX CODE		TYPE OF CONTACT	CONTACT VALUE	SEPICUSNESS VALUE
1603	2	POSS USE SALE SYNTHETIC DRUGS	1	2
1604	2	POSS USE SALE DANG DRUGS LSD	1	3
1609	2	GLUE SNIFFING/GASOLINE SNIFFING	1	2
1703	2	POSSESSION OF LIQUOR BY A MINOR	1	2
1710	2	ILLEGAL PURCHASE OF LIQUOR	1	2
1711	2	FURNISHING LIQUOR TO A MINOR	1	2
1712	2	JUVENILE CONSUMING	1	2
1800	2	DRUNK/DRUNK AND DISORDERLY	1	3
1901	2	FIGHTING	1	3
1902	2	UNLAWFUL ASSEMBLY	1	2
1906	2	PROFANITY	1	1
1908	2	USE&POSS FIREARMS/EXPLOS/BB GUN	1	2
1909	2	DISORDERLY CONDUCT	1	1
1910	2	PROWLING	1	2
1913	2	PROSTITUTION	1	3
1915	2	PROCURING	1	4
2005	2	LOITERING	1	1
2009	2	VAGRANCY	1	1
2104	2	GAMBLING	1	2
2421	2	CDOM	1	2
2501	2	CONCEALING BIRTH	0	0
2560	2	CONTEMPT OF COURT	0	0
2570	2	HARBORING RUNAWAY/FUGITIVE	1	2
2602	2	DWI	1	4
2640	2	PERJURY	0	0
2660	2	ABDUCTION	1	7
2700	2	SUSPICION ONLY/CHARGED I AND R	1	0

S.P.D. CODE	INDEX	TYPE OF CONTACT	CONTACT VALUE	SERIOUSNESS VALUE
2703	4	DRUGS / INFORMATION ONLY	1	0
2850	4	SAFEKEEPING OTHER/ATHORH	0	0
2969	2	OBSTRUCTING JUSTICE	1	5
3002	2	LITTERING	1	1
3004	2	SCHOOL CODES	1	1
3025	2	SMOKING IN A THEATER	1	1
3050	2	ILLEGAL WEARING OF A UNIFORM	1	1
3059	2	HUMANE SOCIETY ORD/DOG LEASH	0	0
3060	2	PEDDLING WITHOUT A LICENSE	1	1
3070	2	PARK ORDINANCE	1	1
3102	2	ARSON	1	7
3304	2	EXTORTION	1	6
4319	2	ESCAPEE/ FUGITIVE	1	5
5428	2	ABERRANT BEHAVIOR	1	2
5429	2	JUVENILE MISCHIEF	1	1
5529	2	PROPERTY DAMAGE VANDALISM	1	3
5601	2	AWOL	1	2
5704	2	MINORS/IMPROPER PLACES/GAMES	1	2
5715	2	CURFEW	0	0
5719	2	ILL PURCH/SALE OF CIGARETTES	1	1
5901	2	PAROLE VIOLATOR	1	3
5902	2	PROBATION VIOLATOR	1	2
7074	2	FIREBOMB/ POSSESSION	1	5
7101	2	ATTEMPTED SUICIDE	0	0
7301	2	TRESPASSING	1	1
7402	2	CRUELTY TO ANIMALS	1	3
7600	2	TRUANT	1	2

S.P.D. CODE	INDEX	TYPE OF CONTACT	CONTACT VALUE	SERIOUSNESS VALUE
8101	2	FALSE ALARMS	1	2
8307	2	HARBOR ORDINANCE	1	1
9901	2	INCORRIGIBLE	1	3
9902	4	INJURIOUS LIVING CONDITIONS	1	0
9903	4	ABUSED CHILD	1	0
9904	4	MISSING PERSONS	0	0
9905	4	DEPENDENT	1	1
9906	2	RUNAWAY / RESIDENT	1	0
9907	2	RUNAWAY/NON RESIDENT	0	0
9908	4	ABANDONED CHILD / VICTIM	1	0
9910	4	FAMILY/NEIGHBOR TROUBLE	1	0
9991	4	SAFEKEEPING FOR DOCTORS EXAM	0	0
9992	4	LOST OR FOUND PERSONS	0	0
9998	4	WITNESS	0	0
9999	4	SAFEKEEPING FOR ALL OTHER	0	0

APPENDIX III.

USE OF RECIDIVISM-ACTUARIAL PROBABILITY TABLES

As a measure of the extent to which the YSB System reduces individual client recidivism, Probability Tables developed through the Seattle Law and Justice Planning Office Youthful Offender Criminal History Survey Project (1976) were employed. These tables, based on approximately 90,000 juvenile police contacts occurring in Seattle over a 20-year period, provide the probability of a given youth committing a subsequent offense, based on the age, race, sex, offense and number of prior offenses. For example, the probability of a black male, age 17, who has been contacted for a burglary which is his second police contact, being contacted for a third offense of any type within six months is .414. Predictions were made for 6-, 12- and 18-month followups. However, for the present YSB analysis, only the 6-month predictions were used, due to the small number of youths for whom followups of 12 or 18 months were possible. In order to establish a group comparable to the Probability Tables, the following rules were established:

1. Severity of prior offenses of YSB clients was determined by the SAR Severity Scale. However, the following offenses were not included in the offense histories of youths:

   a. R/W/non-resident
   b. Missing person
   c. Curfew
   d. Concealing birthdate
   e. Safekeeping
   f. Witness or victim
   g. Lost or found person
   h. Humane Soc. Ordinance
   i. Drunk/drunk and disorderly
   j. Child abandonment
   k. Attempted suicide
   l. Abused child
   m. Dependent child
   n. Injurious living conditions
   o. Bicycle found
   p. Drugs/information only

2. The following offenses were given 0 severity ratings, although they were included in the number of offenses:

   a. Runaway
   b. Suspicion only
   c. Investigate and release

3. Contacts for multiple offenses (occurring at the same time) were treated in the following way, comparable to the method

used in developing the Probability Tables. The offense which appeared last on the record was used as the basis for the prediction and counted as a single contact. The other offenses listed as occurring at the same time were then ignored. For example, if a youth was contacted for burglary, trespassing and prowling on the same day, and this contact was the third in the contact record, the offense listed last (in this case prowling) was used as the criterion offense for the prediction. Thus, the youth was counted as being contacted for prowling as his/her third offense. The burglary and trespassing offenses were not included as part of the contact record.

4. Individual contact records for all YSB youths were obtained from the Seattle Police Department Data Processing unit.

5. Youths with prior offenses for whom no prediction was available in the Probability Tables were excluded from the 6-month individual recidivism analysis. This situation arose in about 24 percent of the cases. Obviously, since the Probability Tables were based on actual contact records, all possible combinations of age, race, sex, offense and number of offenses could not be met.

6. Only those youths who had committed no prior offenses or had committed an offense within three months prior to YSB entry were included in the analysis of predicted vs. actual recidivism (after entry). Those youths who had committed no prior offenses had a 0 prediction of subsequent contact.

7. Only those youths who had at least six months followup from date of last contact (or from entry date in the case of no prior contacts) were included in the analyses.

8. Predictions for youths having post-entry offenses but no pre-entry offenses were recorded on the basis of the post-entry offense. Followup was from the date of the post-offense.

The Probability Tables also provide predictions for the number of subsequent offenses and mean severity of subsequent offenses at 6-, 12- and 18-month followup periods. For the analyses of the number of offenses and severity, the following additional criterion was established:

Only those youths who did have subsequent contacts within six months were included.

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