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OLEA-171

Applications to Law Enforcement of Techniques and Data Developed in the 1967 Census Pretest

New Haven, Connecticut

Project Report Submitted to

Office of Law Enforcement Assistance

U.S. Department of Justice

by

New Haven Police Department
New Haven, Connecticut

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ACQUISITIONS

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This project was supported by Grant #171 awarded by the Attorney General under the Law Enforcement Assistance Act of 1965 to the New Haven Police Department, New Haven, Connecticut. Persons undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment, findings, and conclusions. Therefore, points of view or opinions stated in this document do not necessarily represent the official position or policy of the U.S. Department of Justice.

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SUMMARY

Research Hypothesis

The hypothesis has been made that external factors of a socio-economic type are correlated with reported crime and calls for police services and can be useful as "predictors". While considerable research has been undertaken to test this hypothesis, the lack of current socio-economic data as well as the size of the unit of aggregation of these data has reduced the value of the research results. Thus, the use of 1960 data as a "predictor" for 1969 criminal and police activities is certainly fraught with considerable difficulty. In addition, correlations using relatively large geographical units such as census tracts have limited usefulness from the point of view of the police administrator. The common sense relationship between what police "do" and the physical, sociological, and economic characteristics of the geographical area in which they "do what they do" is a justification for experimental work when new statistical data become available on a current basis. Such was the situation when the Bureau of the Census conducted a full-scale Census Pretest in the City of New Haven in April 1967.

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New Haven Census

When the Bureau of the Census announced plans for a census in the City of New Haven as a full-scale test of the proposed procedures for the 1970 census, the opportunity to relate up-to-date measurements with police data arose. In addition, the Bureau of the Census plans included two major innovations. These were the development of an address coding guide as an essential prerequisite for the use of a mail procedure for gathering census data. The second innovation was the plan to tabulate certain data on a block face basis. From the point of view of police administrators, the first innovation gave promise of developing a computerized look-up procedure to relate street addresses to block faces, nearest intersecting street, and tract. This would have significance for police operations in the dispatching of patrol cars and later in the analysis of the characteristics of calls for service. The innovative plan to release selected census data on a block face basis provided an opportunity to substantially improve the usefulness of data analysis over previous censuses where the smallest unit of tabulation was the block. Thus it has long been recognized that a block total for selected characteristics may not be relevant to police operations since police problems may be a consequence of the characteristics of one side only of the block. The expectation, on the basis of the Bureau of the Census' announced plans, that block face data would be available made this aspect of the New Haven Pretest particularly interesting. From a broader point of view, since the New Haven operation was to be a test of the 1970 census procedures, close involvement with the Bureau of the Census operations would serve to provide useful guidance to the law enforcement profession in terms of what problems and data output they might expect on a nationwide basis in 1970.

New Haven Police Data

While waiting for the delivery of data from the Bureau of the Census the staff of this project assisted in the development of a Central Complaint Desk for the New Haven Police Department. Until the establishment of aentralized procedures no useful complaint data were available within the Department. The research support from this project permitted experimental work in defining characteristics of police complaints and responses to the complaints. In addition, experimental work was done with arrest information generated through the operation of the Circuit Court System in the State of Connecticut. Unfortunately, there has been no possibility of matching complaint data with arrest data, but recommendations to make this possible have been made through the project and are in the process of implementation. Unsuccessful efforts were made to develop experimental matching procedures to relate arrest data on individuals to census data on the same individuals. While having due regard to the confidentiality of both types of data, it would appear useful to experiment in 1970 with a matching effort. Through these techniques a great deal of new information could be generated in respect to the socio-economic characteristics of arrested persons. As an aspect of the implementation of Central Complaint procedures in the New Haven Police Department a computer program, LOOKUPAD, designed to permit a computerized identification of block size and nearest intersecting street for addresses of complaints, was written and tested. Input of addresses to the system, an essentially clerical procedure, was not completed nor does the New Haven Police Department currently have its own computer capability.

Census Data Output

While the field work, essentially a mail procedure, for the New Haven census was completed in April 1967, the special tabulations contracted for by this project were not delivered until late in 1968. In addition, for a combination of technical and administrative reasons, the Bureau of the Census did not deliver any block face tabulations and thereby rendered abortive one of the primary thrusts of this research project. These developments do not, however, suggest the lack of relevance of the research effort. The close working relationship between the New Haven Police Department and the Census Use Office in New Haven has resulted in a useful interchange from which a more realistic appreciation of the Bureau of the Census' procedures and policies has emerged. The special tabulations for the so-called 100% and 25% data are summarized in this report and provide a meaningful description of the City of New Haven on a tract and block basis. These data are not available from any other source.

Potentials for 1970

Two major results were achieved through this research project. In the first place, the staff of this project together with the leadership of the New Haven Police Department, were able to substantially up-grade Department procedures and to be helpful in implementing plans looking toward computerization of many Department operations. In the second place, continued working relationships with the professional staff of the Bureau of the Census has resulted in a better understanding on their part of the potential contribution which census data may make to police administration. At the same time, the

technical and administrative difficulties which have interfered with the anticipated delivery of census data have been identified. It is felt that a reading of this report will assist police administrators in working more effectively and realistically with the Bureau of the Census personnel after the 1970 census is completed. Unfortunately, there is presently no policy to release block face data from the 1970 census except on a special tabulation basis. Experience with the latter type of procedure was not encouraging in the New Haven test census. However, the plan to develop address coding guides as a part of the 1970 census procedure may well provide a useful tool to many police departments. The overall result of this research project would tend to confirm the view of many police administrators that "internal data" dealing with arrests and complaints and more intensive utilization of this type of data represent the major area to which resources should be committed. Census-type data, when available, should be fully exploited, but the severe limitations on its usefulness will probably not be lessened if present Bureau of the Census policies hold through the 1970 census.

PART I

CHAPTER I

THE NEW HAVEN CENSUS PRETEST OF 1967 AS A RESOURCE FOR POLICE ADMINISTRATION

Role of Census Data

Article I, Section 2, of the Constitution of the United States, adopted in 1787, provides that an enumeration of the population of the United States shall be made every ten years. Since the first census was taken in 1790 there has been a continuous series of increasingly complex census enumerations which have provided the fundamental information in respect to the socio-economic dimensions of the country. There have been relatively few systematic efforts to relate census-type data to the needs of police administration. In part, this has resulted from the comparative lack of sophistication on the part of personnel of police agencies but, to a larger degree, it has resulted from the practical difficulties presented by census-type data in relation to the unusual statistical materials collected by police agencies. While the Constitutional mandate under which the census is taken every ten years provides for a simple head count, increasing needs for quantitative information about our society has led the decennial census to add questions on detailed population characteristics: education, income, housing, employment, and related aspects of human activity. In fact, the proliferation of decennial census questions has become an acute political issue now being debated in connection with plans for the 1970 census.

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The current debate is one aspect of the increasing sensitivity to "the invasion of privacy". While market research and commercial interests have been actively pressing for the types of data useful to them in their operations, the law enforcement community has not been involved in the development of decennial census programs. Only recently (1968), has the Bureau of the Census organized an advisory panel representing the spectrum of interests in the criminal justice field.

The report of the President's Commission on Law Enforcement and Administration of Justice, "The Challenge of Crime in a Free Society", commented on the apparent rise in crime, particularly in the cities.

> "Burglary, robbery, and serious assaults occur in areas characterized by low income, physical deterioration, dependency, racial and ethnic concentrations, broken homes, working mothers, low levels of education and vocational skill, high unemployment, high proportions of single males, overcrowded and substandard housing, high rates of tuberculosis and infant mortality, low rates of home ownership or single family dwellings, mixed land use, and high population density."

In the annual report published by the Federal Bureau of Investigation, "Crime in the United States, Uniform Crime Reports", a list of factors that must be taken into account in interpreting changes in crime rates and in the amount and type of crime that occurs from place to place includes a number of socio-economic variables. These include density and size of population, age, sex, and race composition and economic status of the population.

From the point of view of police administration, the less "aggregate" census-type data are, the more useful they become. Thus, population characteristics summarized for an entire county or urban area are not useful except as a most general guide.

Traditionally, census-type data have been released on a county basis. Beginning in 1940, certain types of data have been published for "census tracts" on a limited basis. (Census tracts are small homogeneous groups of city blocks with a population between 3,000 and 6,000.) By the 1960 census nearly every city with a population of 50,000 or more was divided into tracts. With the availability of tract data a number of police agencies as well as municipal agencies in general, moved in the direction of using tact boundaries as administrative unit boundaries so that data generated by various city agencies would relate to standard geographic units. However, for a complex of reasons, only a few cities have been able to achieve the desirable objective of common geographic definitions for all agency statistics. The availability of tract data made possible a more meaningful analysis of socio-economic characteristics in relation to crime records maintained by local police departments. One significant use of census tract data for this purpose, using tract information from the census of 1950, was that by Dr. Calvin F. Schmid in his articles on urban crime areas in the City of Seattle. More recently, under a grant from the Office of Law Enforcement Assistance, the Franklin Institute in cooperation with the Philadelphia Police Department has made use of census tract data to develop a technique for predicting crime occurrences, "Computer-Aided Crime Prediction in a Metropolitan Area."

New Haven Census Pretest of 1967

Statistical data generated through the decennial census are referred to as small area data when they are available for tracts and blocks. Because of the increasing interest in small area data by commerical users as well as public agencies, the Bureau of the Census established a Census Advisory Committee on Small Area Data in 1965 for the purpose of giving guidance on producing improved and more flexible small area data from the 1970 census. As a result of a recommendation from this Committee, the New Haven Census Use Study was created. In planning for the 1970 census it was recognized that traditional methods of enumeration by using field interviewers would encounter significant difficulties because of labor shortages and rising costs. As a consequence, the administration of the Bureau of the Census began to formulate plans for the use of mail-out, mail-back procedures and the continued use of sampling procedures for certain census respondents. Several full-scale field tests were scheduled in the 1970 census planning procedures. The New Haven, Connecticut, Standard Metropolitan Statistical Area (S.M.S.A.) was selected as a location for a census pretest. Because of the significant leadership of Mayor Richard C. Lee and his administration in the area of federal/state and city urban programs as well as the influence of Yale University, New Haven was a logical test site. A Census Pretest Office opened in February 1967, in New Haven and the complete census field operation was over by June. In order to supplement the field experience with a study in depth of "user needs" the Bureau of the Census opened a Census Use Office in the City of New Haven and this office, until its closing on June 30, 1969, has provided special tabulations, experimented with new methods and generally sought to work cooperatively with any group seeking to use 1967 census data. Mr. Caby C. Smith was director of the office and has served as liaison officer with this O.L.E.A. project and the Bureau of the Census.

Origin of the Office of Law Enforcement Assistance Project

A working relationship was established between the Census Use Office and Chief Francis V. McManus of the New Haven Police Department in November 1966. The Police Department identified its interest in obtaining data tabulations from the Census Pretest of April 1967, for tracts and blocks. However, the most important aspect of the announced plans was the expectation that certain data would be made available on a "block face" basis. ("Block face" is a term which refers to the side of a block.) In general, a block has four sides and the total count of the particular population characteristics for the block is the smallest unit for which census data have traditionally been released. A police administrator finds that, from a policing point of view, a block has significantly different characteristics on each of its faces. Thus, one face of a block may have commercial occupancies such as bars and grills which generate police activities while the other three sides may have residential occupancies calling for different kinds of police services. As a consequence, the Census Bureau plans to use block faces as "building blocks" to provide census data for various local administrative areas were immediately relevent to police administration and, if effectively implemented, would greatly stimulate the use of census-type data in police applications. As a consequence, Chief Francis V. McManus wrote to the Census Use Office in November 1966, and said, "The possibility of correlating criminal and Motor Vehicle data already maintained in machine processable form, with socio-economic data from small areas such as block face, offers tremendous potential to a forward-looking police department for purposes of planning, crime prevention, advantageous deployment of personnel, etc."

The New Haven Police Department formulated a project proposal for support from the Office of Law Enforcement Assistance of the U.S. Department of Justice. This was the genesis of O.L.E.A. Grant #171.

Census Pretest Procedures

In order to use a mail-out, mail-back procedure it was necessary for the Bureau of the Census to develop a list of all dwelling unit addresses within the City of New Haven. This was accomplished on the basis of the purchase of a commercially available list of addresses which was then verified and supplemented by using employees of the Post Office. Thus, each delivery carrier verified the commercial list of addresses by checking against his route list. Using this technique, with modifications appropriate for areas not included in the City delivery zone, it was hoped that subsequently all dwelling units were identified by means of an address. No information as to the accuracy of the address listing has been made available by the Bureau of the Census. Subsequent to the preparation of lists of addresses an envelope was mailed to each dwelling unit which normally receives mail. The envelope contained the census form and instructions to fill out the form and to mail it back to the Bureau of the Census on April 5, 1967. Follow-up procedures were used in cases where census forms were not returned. However, no information on the completeness of the response has been made available by the Bureau of the Census in respect to either the initial mailing or the field follow-up. In any case, all tabulations released by the Bureau of the Census were based on the procedures which have just been outlined and although the Bureau of the Census, for its own internal purposes, must have a judgment in respect to under-enumeration no data on this crucial question have been made available to the staff of this project.

Since it is reasonable to assume that under-enumeration is likely to be a particularly troublesome problem in both ghetto and high income areas, the impact of under-enumeration, in respect to certain socio-economic characteristics of the population such as race and income, may be substantial. Any attempt to utilize small area data under these circumstances could involve a considerable margin of error. It has been a disappointment that the Bureau of the Census has provided no guidance in respect to this problem. Since the Census Use Office has worked only with the tabulations and has not been in a position to report the experience of the original Census Pretest field staff, it is not possible to reach any useful conclusion in respect to the estimate of under-enumeration.

Consistent with the policies of the Bureau of the Census implemented in the 1960 census, all identifiable dwellings received one of two types of questionnaire, the short form or the long form. The short form included nine questions in respect to the characteristics of people in the household and eleven questions related to housing characteristics. The long form which was sent to 25% of the households selected systematically, not randomly, consisted of a 20-page questionnaire which, in addition to all of the questions included in the short form, asked for additional information on education, employment, earnings and the like. On page 8 a part of the short form is shown with typical responses. The census forms are so designed as to be "read in" to an electronic calculator with the use of FOSDIC (Film Optical Sensing Device for Input to Computers). The Census Pretest was conducted for the entire New Haven Standard Metropolitan Statistical Area (S.M.S.A.) which, as shown by the map on page 9 embraces a number of towns in addition to the City of New Haven.

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

FORM DX-4
(1-27-67)

Steps in Filling Out Your Census Form

A. Look at the example below to see how written entries and circle fill-ins are made.

B. Answer Question A on page 1 of the Census form.

C. Fill page 2 of the form; note the instructions overprinted on the example below.

D. Answer Questions 11 and 12 on page 3 of the form.

E. Answer Questions H1 to H31 about your home or apartment on pages 3, 4, and 5 of the form. Helpful instructions are given on the back page of this sheet.

F. Then, starting with pages 6 and 7, fill the specified set of facing pages for each person listed on page 2 of the form. Helpful instructions are given on the reverse side of this sheet.

G. Answer Question B on page 20 of the form.

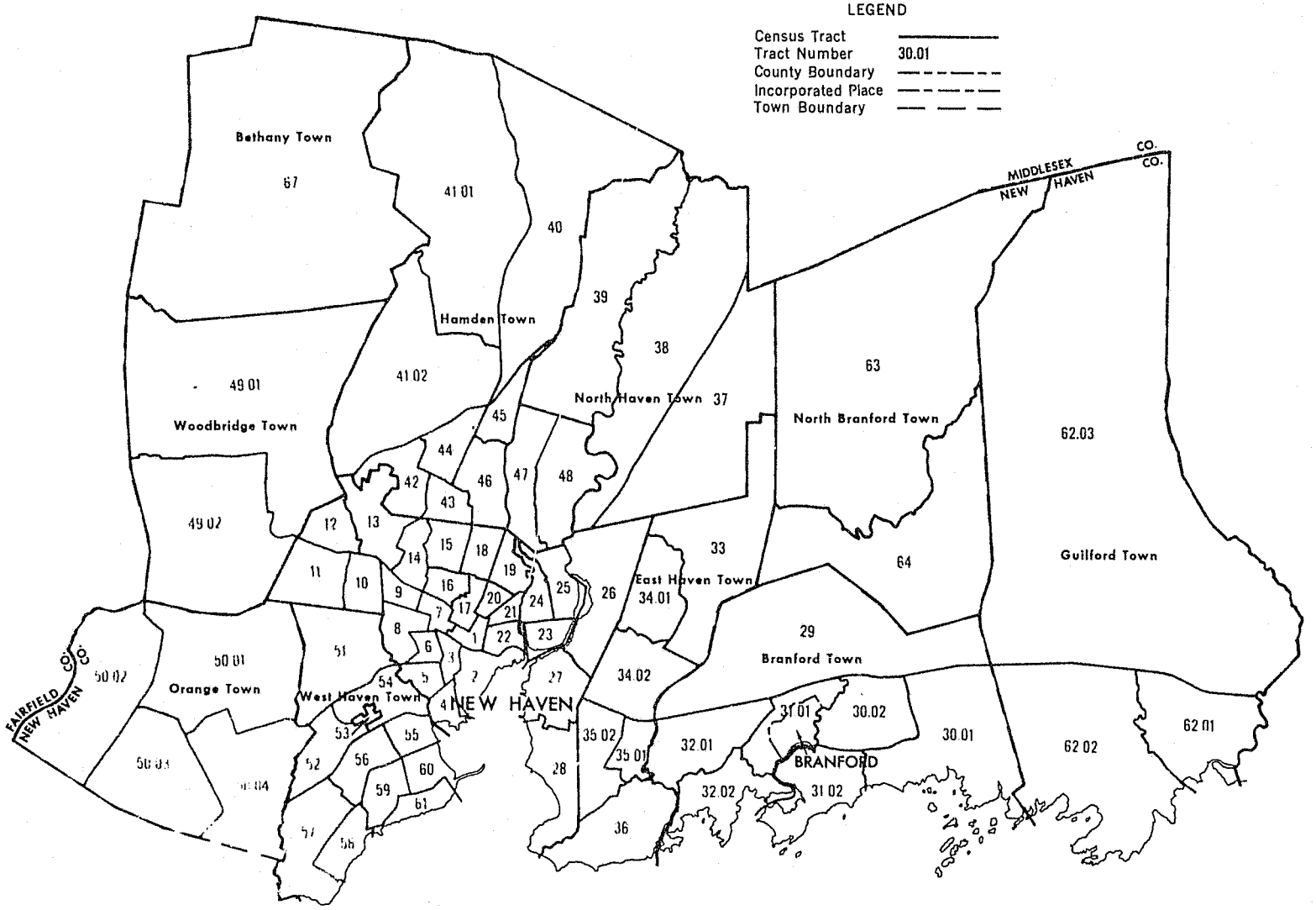
H. Check out and mail your form, as explained on page 20. Mail the form on Wednesday, April 5, or as soon thereafter as possible.

Line No.	Col. 1 NAME AND SOCIAL SECURITY NUMBER of each person who was living here on Wednesday, April 5, 1967 or who was staying or visiting here and had no other home. Write names in this order: Head of the household; Wife of head; Unmarried children, oldest first; Married children and their families; Other relatives of the head; Persons not related to the head	RELATIONSHIP TO HEAD OF THIS HOUSEHOLD: Col. 2 Exact relationship. Write relationship of person to head of the household. For example: Head, Wife, Son, Grandson, Mother-in-law, Lodger's wife, Maid, Partner	Col. 3 Relationship category. Fill one circle	Col. 4 SEX. Fill one circle	Col. 5 COLOR OR RACE. Fill only one circle (If "Other," also write in race)	DATE OF BIRTH: Col. 6 Month and year of birth and age last birthday. Write	Col. 7 Month of birth. Fill one circle	Col. 8 Entry for year of birth. Fill one circle for decade. Fill one circle for exact year	Col. 9 MARITAL STATUS. Fill one circle
1	a. Hylands, Alex B. (Last name / First name / Middle initial) b. Social Security or Railroad Retirement No. or None: 071 12 4949	Head	● Head of household ○ Wife of head ○ Son or daughter of head ○ Other relative of head ○ Roomer, boarder, lodger ○ Patient or inmate ○ Other not related to head	Male ● Female ○	● White ○ Negro ○ Chinese ○ Japanese ○ Filipino ○ Indian(Amer) ○ Other – Write	Dec. (Month) 1914 (Year) 52 (Age)	○ Jan.–Mar. ○ Apr.–June ○ July–Sept. ● Oct.–Dec.	○ 186– ○ 192– ○ 0 ○ 5 ○ 187– ○ 193– ○ 1 ○ 6 ○ 188– ○ 194– ○ 2 ○ 7 ○ 189– ○ 195– ○ 3 ○ 8 ○ 190– ○ 196– ● 4 ○ 9 ● 191–	● Now married ○ Widowed ○ Divorced ○ Separated ○ Never married
2	a. Hylands, Edith J. (Last name / First name / Middle initial) b. Social Security or Railroad Retirement No. or None: 102 14 5127	Wife	○ Head of household ● Wife of head ○ Son or daughter of head ○ Other relative of head ○ Roomer, boarder, lodger ○ Patient or inmate ○ Other not related to head	Male ○ Female ●	● White ○ Negro ○ Chinese ○ Japanese ○ Filipino ○ Indian(Amer) ○ Other – Write	July (Month) 1919 (Year) 47 (Age)	○ Jan.–Mar. ○ Apr.–June ● July–Sept. ○ Oct.–Dec.	○ 186– ○ 192– ○ 0 ○ 5 ○ 187– ○ 193– ○ 1 ○ 6 ○ 188– ○ 194– ○ 2 ○ 7 ○ 189– ○ 195– ○ 3 ○ 8 ○ 190– ○ 196– ○ 4 ● 9 ● 191–	● Now married ○ Widowed ○ Divorced ○ Separated ○ Never married
3	a. Hylands, Phyllis M. (Last name / First name / Middle initial) b. Social Security or Railroad Retirement No. or None: 385 26 5469	Daughter	○ Head of household ○ Wife of head ● Son or daughter of head ○ Other relative of head ○ Roomer, boarder, lodger ○ Patient or inmate ○ Other not related to head	Male ○ Female ●	● White ○ Negro ○ Chinese ○ Japanese ○ Filipino ○ Indian(Amer) ○ Other – Write	Mar. (Month) 1947 (Year) 20 (Age)	● Jan.–Mar. ○ Apr.–June ○ July–Sept. ○ Oct.–Dec.	○ 186– ○ 192– ○ 0 ○ 5 ○ 187– ○ 193– ○ 1 ○ 6 ○ 188– ● 194– ○ 2 ● 7 ○ 189– ○ 195– ○ 3 ○ 8 ○ 190– ○ 196– ○ 4 ○ 9 ○ 191–	○ Now married ○ Widowed ○ Divorced ○ Separated ● Never married
4	a. Franklin, Edward L. (Last name / First name / Middle initial) b. Social Security or Railroad Retirement No. or None: 243 66 7846	Father-in-law	○ Head of household ○ Wife of head ○ Son or daughter of head ● Other relative of head ○ Roomer, boarder, lodger ○ Patient or inmate	Male ● Female ○	● White ○ Negro ○ Chinese ○ Japanese ○ Filipino ○ Indian(Amer) ○ Other – Write	June (Month) 1896 (Year) 70 (Age)	○ Jan.–Mar. ● Apr.–June ○ July–Sept. ○ Oct.–Dec.	○ 186– ○ 192– ○ 0 ○ 5 ○ 187– ○ 193– ○ 1 ● 6 ○ 188– ○ 194– ○ 2 ○ 7 ● 189– ○ 195– ○ 3 ○ 8 ○ 190– ○ 196– ○ 4 ○ 9 ○ 191–	○ Now married ● Widowed ○ Divorced ○ Separated ○ Never married
5							○ Jan.–Mar.	○ 186– ○ 192– ○ 0 ○ 5	● Now married

INSTRUCTIONS — COLUMNS 1 TO 9

1
8
1

CENSUS TRACTS
NEW HAVEN, CONN., STANDARD METROPOLITAN STATISTICAL AREA



DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

CHAPTER II

STATISTICAL PROFILE OF THE CITY OF NEW HAVEN 1960-1971

Result of the Pretest

In general, the results of the Census Pretest of April 1967, showed population changes in the New Haven Standard Metropolitan Statistical Area (S.M.S.A.) and in the City of New Haven similar to those being experienced in other major metroplitan areas of the United States. Thus, while the total population of the Standard Metropolitan Statistical Area increased 8.2% from April 1, 1960, to April 5, 1967, the population of the City of New Haven declined by 6.8%. The white population of the S.M.S.A. rose by 4.3% but declined by 16.4% in the City of New Haven. At the same time, the non-white population of the S.M.S.A. rose 54.6% and in the City of New Haven by 48.4%. The total non-white population in the S.M.S.A. was 38,251 practically all of which, amounting to 33,636, was resident in the City of New Haven. Although the immediate reaction to the release of these figures by the Bureau of the Census was an expression of disbelief in terms of the decline of population in the central city, there is no reason to believe that the aggregate figures are inconsistent with known patterns in urban centers since 1960.

Since this report is concerned solely with the City of New Haven no data for the entire S.M.S.A. will be shown in detail. The following data summarize the changes in total population for the components of the S.M.S.A.

Population of the New Haven, Connecticut

Standard Metropolitan Statistical Area

Area	April 5, 1967	April 1, 1960	Increase, April 1, 1960 to April 5, 1967 (percent)
The SMSA	347,094	320,836	8.2
Bethany town	3,118	2,384	30.8
Branford town, total	19,210	16,610	15.7
Branford borough	2,281	2,371	- 3.8
East Haven	24,354	21,388	13.9
Guilford town	10,500	7,913	32.7
Hamden town	47,052	41,056	14.6
New Haven city	141,752	152,048	- 6.8
North Branford town	10,250	6,771	51.4
North Haven town	21,406	15,935	34.3
Orange town	12,791	8,547	49.7
West Haven town	49,958	43,002	16.2
Woodbridge town	6,703	5,182	29.4

Census Data by Tract

Major changes in the period 1960-1967 in the population characteristics of the City of New Haven with particular reference to the characteristics which are relevent to police administration will now be examined. These data are presented on a tract basis. Block statistics as well as special tabulations by traffic zone are shown in Appendix C. The data by tract in respect to age, race, and sex were published in "Current Population Reports, Special Censuses", Series P-28, No. 1459, December 1, 1967. This report is the only publication issued by the Bureau of the Census of the

results of the special census of the New Haven S.M.S.A. All other data were released either in preliminary format or in the form of special tabulations prepared on a cost basis for this report.

The tabulation on page 13 shows total population and non-white population by tract for 1960 and 1967. Of the 28 tracts the total population declined in 21 and increased in 7. The non-white population increased in 23 tracts and declined in 5. Tracts with a major concentration of non-white population include tracts 3, 5, 6, 7, 8, 12, 13, 15, 16, 18, 21. In general, the tracts with a significant percentage of non-white population in 1960 increased in non-white population in 1967. The table on page 14 summarizes three major socio-economic variables for 1960 and 1967 by tract. These are: average rent, percent non-white and percent overcrowded.

A familiar statistical device is used to show the relationship between the percent non-white population by tract in 1960 and 1967. The scatter diagram on page 15 shows the 1960-1967 relationship. A linear line of relationship (called a least squares line of regression) has been mathematically fitted and is plotted on the scatter diagram. In addition, a coefficient of determination (r^2) was calculated with a value of 80.62% indicating a rather close relationship between the 1960 and 1967 values. The standard error of estimate ($S_{y.x}$) which measures the amount of "scatter" around the line of regression is 9.24%. (A discussion of these statistical procedures may be found in any general textbook as, for example, John I. Griffin's "Statistical Methods and Applications", New York, Holt, Rinehart and Winston, 1962.)

Certain additional socio-economic characteristics have been measured for the 28 tracts in the City of New Haven. The table on pages 16 and 17 shows total

Total and Non-White Population by Tract
New Haven City - 1960, 1967

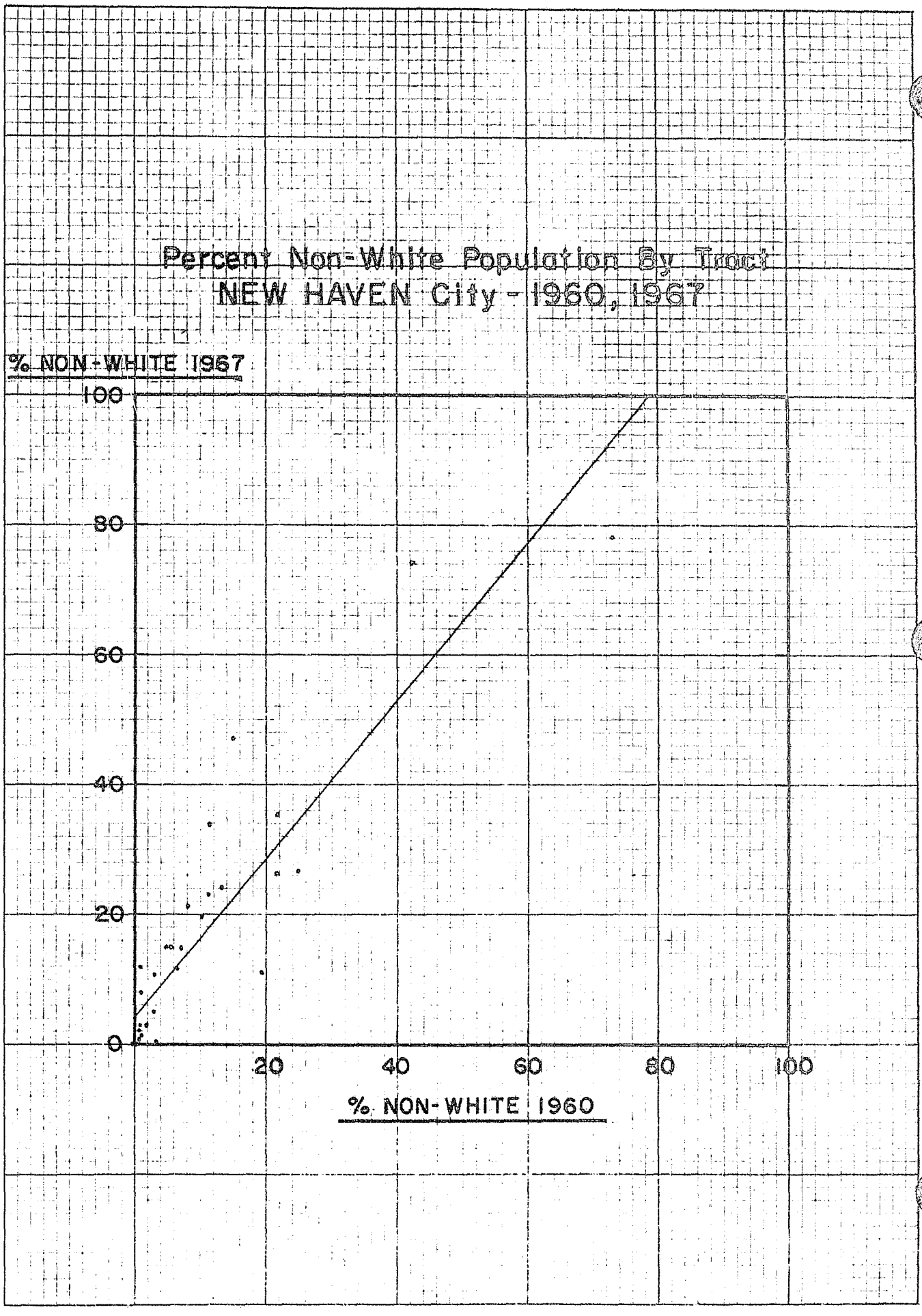
Tract	1960		1967	
	Total Population	Non-White Population	Total Population	Non-White Population
1	1,293	79	1,039	101
2	1,048	264	179	49
3	5,224	613	4,385	1,035
4	3,756	110	3,473	368
5	6,047	697	5,551	1,889
6	8,442	1,247	8,056	3,779
7	6,999	1,526	6,602	1,736
8	5,669	470	5,277	1,133
9	5,010	87	4,759	147
10	4,700	47	4,534	52
11	2,873	22	3,106	51
12	5,944	789	5,901	1,418
13	4,050	883	5,119	1,833
14	5,147	272	4,932	739
15	9,478	4,021	9,590	7,125
16	10,229	7,424	7,947	6,192
17	5,892	172	5,599	273
18	4,335	443	5,233	1,031
19	6,134	75	5,726	190
20	4,391	148	3,612	183
21	5,352	1,293	2,405	1,067
22	5,353	1,045	2,131	239
23	6,101	394	5,455	795
24	7,014	391	5,468	706
25	6,434	70	5,772	462
26	5,671	43	8,570	999
27	4,628	37	5,40:	35
28	4,789	3	5,930	9
Total	152,048	22,665	141,752	33,636

Source: Bureau of the Census, Census of Population, 1960.
Special Census, New Haven City, 1967.

Average Rent, Percent Non-white and Percent Overcrowded
New Haven City - 1960, 1967

	1960			1967		
Tract	Avg. Rent	Percent Non-white	Percent Overcrowded	Avg. Rent	Percent Non-white	Percent Overcrowded
1	59	6.1	4.8	71	9.7	6.5
2	43	25.2	12.9	71	27.4	23.5
3	53	11.7	9.4	78	23.6	26.0
4	56	2.9	6.9	80	10.6	14.3
5	48	11.5	11.0	75	34.0	25.2
6	52	14.8	9.8	81	46.9	27.3
7	68	21.8	4.4	104	26.3	10.1
8	64	8.3	4.9	89	21.5	14.1
9	84	1.7	1.9	103	3.1	3.9
10	76	1.0	4.5	129	1.1	2.6
11	99	0.8	0.7	135	1.6	0.5
12	79	13.3	12.9	93	24.0	20.9
13	69	21.8	21.7	110	35.8	29.1
14	75	5.3	1.7	100	15.0	5.0
15	60	42.4	10.7	88	74.3	22.6
16	58	72.6	16.7	78	77.9	31.5
17	59	2.9	4.4	88	4.9	5.3
18	99	10.2	4.2	120	19.7	11.3
19	82	1.2	3.7	105	3.3	8.5
20	67	3.4	3.8	90	0.0	9.6
21	45	24.2	19.2	70	44.8	36.1
22	42	19.5	17.1	85	11.2	13.3
23	47	6.5	10.4	69	14.6	21.2
24	48	5.6	9.8	72	12.9	17.3
25	52	1.1	8.2	74	8.0	16.3
26	61	0.8	7.3	95	11.7	20.0
27	53	0.6	7.2	91	0.6	11.6
28	84	0.1	4.0	106	0.2	9.2

Source: Bureau of the Census, Census of Population, 1960.
Imager Tables, Special Census, New Haven City, 1967.



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Socio-Economic Characteristics by Tract
New Haven City - 1967

Tract	Total	Negro	Female	Age Distribution 0-13	14-17	18-24	25-34	35-44	45-54	55-64	65 & Over	Index of Family Instability
1	1039	73	341	59	24	346	90	43	111	137	229	47.29
2	179	47	82	43	9	28	27	17	21	16	18	13.88
3	4385	1005	2256	1037	206	805	552	379	395	456	555	15.96
4	3473	338	1869	822	187	399	374	365	464	382	480	8.50
5	5551	1815	2915	1617	318	527	686	602	626	610	565	11.22
6	8056	3495	4294	2312	421	1099	1098	755	791	713	867	15.93
7	6602	1563	3468	758	158	1172	1042	611	632	870	1359	23.22
8	5277	1055	2885	1063	234	698	684	431	561	656	950	10.73
9	4759	85	2740	670	185	633	545	426	533	729	1038	10.69
10	4534	32	2482	893	272	351	400	502	637	616	863	4.98
11	3106	28	1631	713	259	224	311	409	551	378	261	3.10
12	5901	1336	3095	1470	386	713	678	628	772	623	631	5.00
13	5119	1768	3028	1398	297	1046	633	470	409	384	482	10.73
14	4932	702	2644	917	297	714	493	494	670	597	750	6.34
15	9590	7046	5115	2584	626	1185	1258	1175	1091	795	876	17.70
16	7947	6012	4112	2624	549	956	1081	796	661	563	717	26.36
17	5599	155	739	251	104	4459	352	102	82	87	162	17.97
18	5233	886	2947	1047	157	1244	1061	443	366	420	495	7.44
19	5726	152	3183	973	270	595	793	567	721	723	1084	7.02
20	3612	117	1967	469	129	509	493	309	453	523	727	13.00
21	2405	968	1251	823	145	246	273	238	215	215	250	36.27
22	2131	216	1216	398	96	227	289	209	270	264	378	13.20
23	5455	676	2911	1426	337	573	576	653	685	583	622	10.30
24	5468	613	2879	1309	358	625	619	610	742	583	622	9.79
25	5772	412	3063	1494	354	563	656	852	697	638	788	9.93
26	8570	955	4453	2436	504	1037	1105	986	992	743	767	6.14
27	5401	25	2769	1169	333	651	684	610	735	634	585	6.17
28	5930	2	3064	1404	373	519	675	729	856	731	643	3.62
Total	141,752	31,607	73,399	32,179	7,588	22,144	17,528	14,141	15,739	14,669	17,764	11.10

Source: Special Census, New Haven City, Imager Tables, 1967.

Socio-Economic Characteristics by Tract
New Haven City - 1967

Block	1 Person per Household (percent)	6 or more Persons per Household (percent)	Families with Female Head (percent)	Total Households	1 Unit Structure (percent)	Owner Occupied (percent)	Avg. Monthly Rental ($)	Avg. Value Owner Occ. ($000)	Persons in Crowde Household Units (percent)
1	83.9	0.8	23.4	887	6.42	1.46	71	15.4	6.5
2	34.4	10.3	22.4	64	31.25	21.87	71	14.6	23.5
3	26.0	9.5	30.8	1470	9.18	21.15	78	16.1	26.0
4	21.6	7.1	28.6	1271	13.37	33.01	80	14.6	14.3
5	19.2	10.8	26.9	1945	15.47	26.99	75	13.9	25.2
6	21.6	10.9	31.8	2869	9.23	18.05	81	14.1	27.3
7	57.9	2.2	41.6	3912	4.90	6.16	104	20.6	10.1
8	22.7	5.8	32.1	1936	11.26	21.53	89	16.7	15.9
9	29.4	2.6	36.5	2057	14.63	24.50	103	24.7	3.9
10	22.6	6.1	27.1	1708	55.91	53.10	129	27.2	2.6
11	5.7	3.8	11.7	1009	88.99	72.34	135	29.7	0.5
12	11.5	6.7	17.8	1979	48.71	46.53	93	19.0	20.9
13	20.8	11.0	31.7	1589	24.41	13.84	110	22.2	29.1
14	16.9	4.7	25.3	1779	38.22	46.82	100	27.0	5.0
15	19.2	11.9	31.1	3210	24.04	33.39	88	16.0	22.6
16	24.1	13.8	40.2	2599	20.08	16.19	78	12.0	31.5
17	52.0	3.7	33.7	482	20.33	7.46	88	30.6	5.3
18	21.3	4.6	25.2	1773	20.24	21.26	120	32.5	11.3
19	27.0	4.8	33.6	2389	18.75	31.22	105	24.4	8.5
20	42.3	3.3	39.3	1738	12.19	21.23	90	26.9	9.6
21	23.1	12.9	37.7	835	5.26	13.17	70	16.0	36.1
22	28.9	4.4	31.4	870	3.10	19.42	85	18.8	13.3
23	19.0	8.4	29.1	1939	6.54	28.15	69	15.0	21.2
24	18.0	7.5	27.2	2016	10.11	27.03	72	13.6	17.3
25	20.6	7.8	28.1	2024	22.82	31.17	74	15.6	16.3
26	10.0	11.4	15.4	2608	50.84	53.64	95	17.2	20.0
27	14.6	6.0	18.1	1838	35.96	46.89	91	18.0	11.6
28	8.1	2.8	13.8	1782	73.17	77.16	106	20.8	9.2
Total	38.9	1.4	29.2	50,578	24.83	30.00	91	20.0	17.0

Source: Special Census, New Haven City, Imager Tables, 1967.

population, Negro (this excludes non-Negro, non-white), female, and selected age groupings. The table also includes an index of family instability which was calculated from census data by relating the number of persons divorced and separated to the total number reported as married. In general, a high index of family instability is correlated with a high percentage of non-white population in the tract, this is a familiar phenonmenon in major urban centers. (For technical reasons the data in Tract 1 did not represent a complete tabulation of characteristics.) In addition, percent figures are shown for one person households, for households with six or more persons, and for families with female head. Certain housing characteristics are indicated including percent of one unit structure, percent owner occupied, average monthly rental and average value of owner occupied structure. Clearly, these characteristics by tract are closely inter-correlated. Lastly, a percent figure is shown for each tract for the number of persons in crowded household units. The Bureau of the Census defines an overcrowded unit as one with 1.01 or more persons per room.

For example, the relationships between these variables may be seen if a comparison is made between two significantly different tracts in terms of socio-economic characteristics.

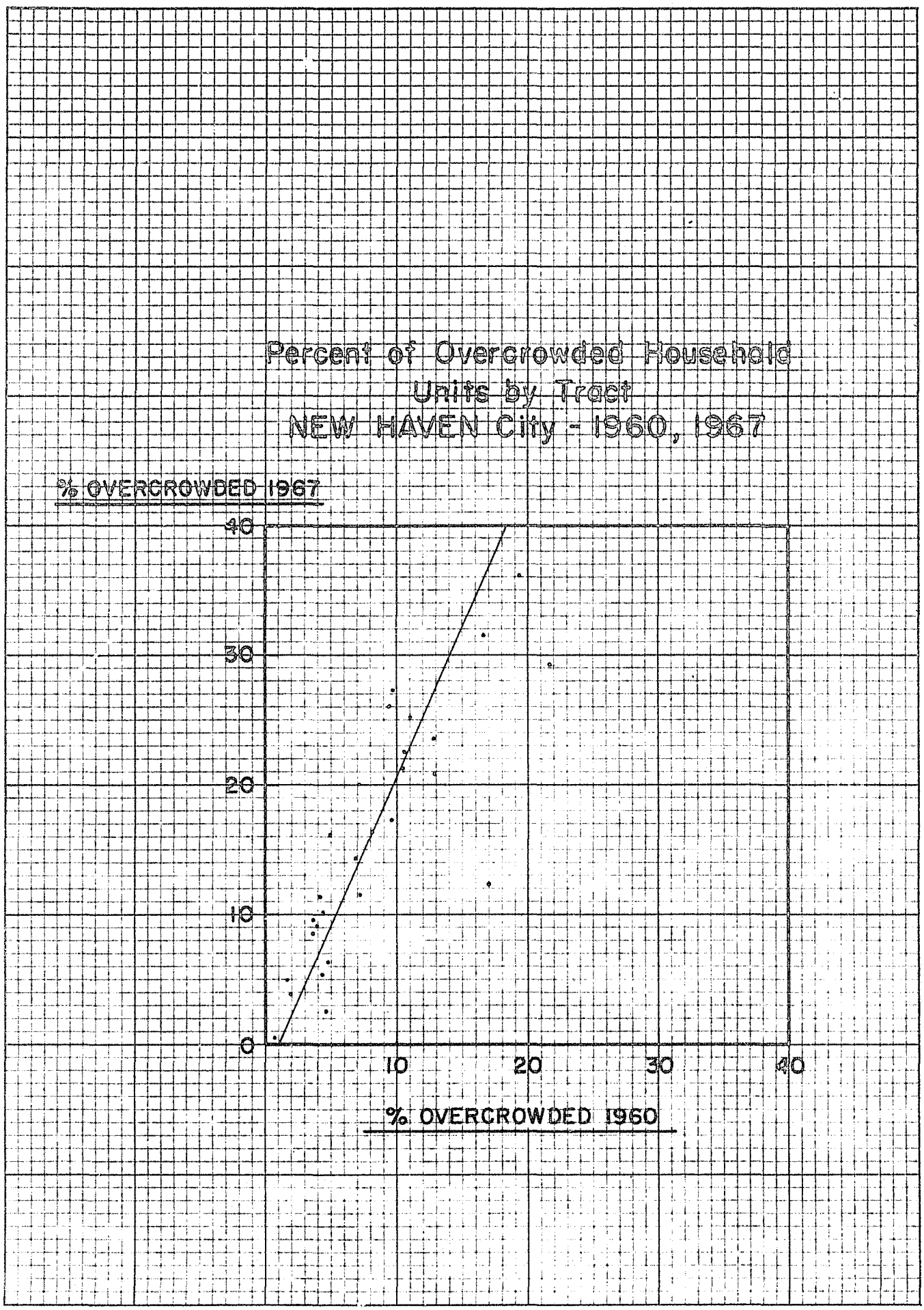
Tract	% Negro	Index of Family Instability	% Owner Occupied	Average Monthly Rental	% in Crowded Household Units
16	75.6%	26.4%	16.2%	$ 78	31.5%
28	0.0%	3.6	77.2%	$ 106	9.2%

If a comparison is made between the percent of overcrowded household units by tract in 1960 with 1967, the scatter diagram shown on page 20 results. Again, a mathematically fitted line is shown. The coefficient of determination is 71.33% indicating a close relationship between the two sets of observations. The standard error of estimate is 9.60%. If a similar analysis is undertaken in terms of average monthly rental, the scatter diagram on page 21 results. Again, the low average rental tracts in 1960 are, in general, the low average rental tracts in 1967. Again, a line of relationship has been fitted. In this case, the coefficient of determination is 75.25% and the standard error of estimate is 9.08%.

Other Socio-Economic Measures

Certain additional measures of socio-economic characteristics of the population of the City of New Haven can be developed from census data. The table on page 22 shows the number and percent of persons completing 12th grade education and above by tract in 1967. This table is based on a special tabulation made from the 25% data. Due to difficulties with the computer program, it was not possible to break out the number of persons with less than elementary school education and those completing only part of their high school education.

One of the most interesting economic variables is family income. In the absence of family income data it is common to use related measurements such as average rental, value of owner occupied home, and car ownership. In the census of 1960, the 25% sample of respondents were asked to provide information on family income for the year 1969. The table on page 23 shows the distribution of families by income, by tract. Again, a group relationship to the previously examined socio-



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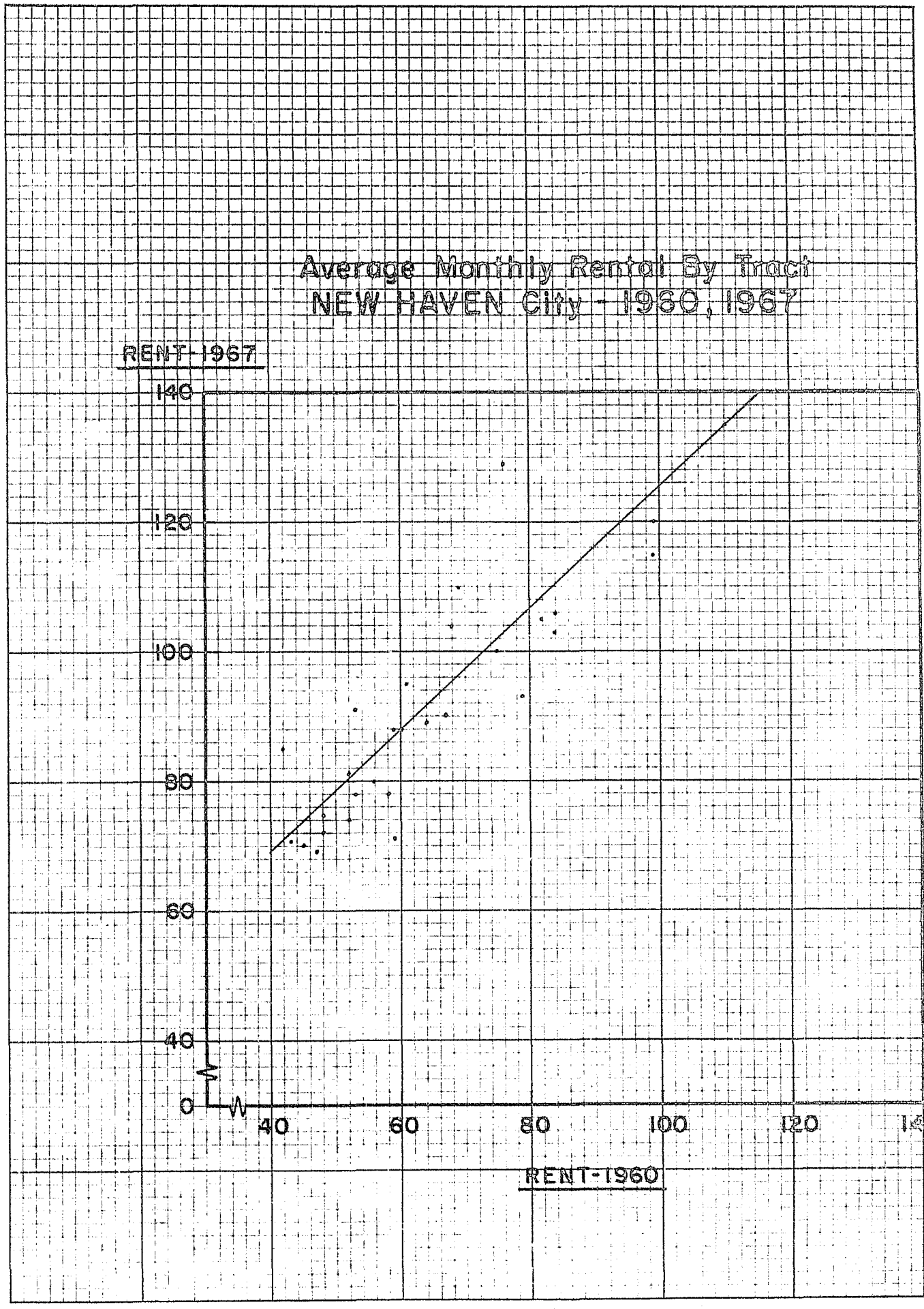

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Number and Percent of Persons Completing 12th Grade Education and Above
By Tract
New Haven City - 1967

	Highest Grade Completed								
	College				Graduate				
Tract	12 Years	Percent	1-3 Years	Percent	4 Years	Percent	1/more Years	Percent	Tract Total
1	348	33.8	115	11.2	58	5.6	82	8.0	603
2	25	14.6	4	2.3	6	3.5	2	1.2	37
3	793	18.7	338	8.0	150	3.5	266	6.3	1,547
4	793	23.8	114	3.4	89	2.7	25	0.8	1,021
5	848	15.9	209	3.9	98	1.8	62	1.2	1,217
6	1,429	18.8	301	4.0	187	2.5	213	2.8	2,130
7	1,563	24.3	683	10.6	522	8.1	787	12.2	3,555
8	1,235	24.4	417	8.3	219	4.3	176	3.5	2,047
9	1,344	29.2	604	13.1	380	8.3	254	5.5	2,582
10	1,094	25.0	645	14.7	421	9.6	374	8.5	2,538
11	781	25.6	494	16.2	280	9.2	266	8.7	1,821
12	1,656	29.1	499	8.8	186	3.3	151	2.7	2,492
13	1,140	23.0	658	13.3	212	4.3	149	3.0	2,159
14	1,159	24.0	659	13.7	321	6.7	326	6.8	2,465
15	2,116	22.9	523	5.7	172	1.9	106	1.1	2,917
16	1,236	16.1	349	4.6	219	2.9	280	3.7	2,084
17	1,181	21.6	2,705	49.4	375	6.9	797	14.6	5,058
18	842	16.5	771	15.1	538	10.5	1,041	20.4	3,198
19	1,399	25.1	425	7.6	401	7.2	483	8.7	2,708
20	761	21.9	331	9.5	253	7.3	352	10.1	1,697
21	380	16.4	75	3.2	43	1.9	24	1.0	522
22	345	16.9	153	7.5	69	3.4	76	3.7	643
23	865	16.6	237	4.5	62	1.2	17	0.3	1,181
24	1,010	19.2	247	4.7	87	1.7	55	1.0	1,399
25	1,279	23.3	259	4.7	100	1.8	50	0.9	1,688
26	2,107	25.5	541	6.6	152	1.8	100	1.2	2,900
27	1,293	25.0	299	5.8	123	2.4	74	1.4	1,789
28	1,410	24.5	404	7.0	163	2.8	159	2.8	2,136
	30,436	22.3	13,059	9.6	5,886	4.3	6,747	4.9	56,128

Source: Special Census, New Haven City, 1967.
Note: Tabulation based on 25 percent data.

Family Income by Tract

New Haven City - 1959

Tract	Number of Families									Median Income (Dollars)
	Under $2,999	$3,000 to $3,999	$4,000 to $5,999	$6,000 to $7,999	$8,000 to $9,999	$10,000 to $14,999	$15,000 to $24,999	$25,000 and Over	All Families	
1	23	55	82	25	4	15	13	-	217	4,984
2	57	43	55	46	36	16	3	-	256	5,036
3	124	207	394	267	95	93	8	-	1,188	5,288
4	86	121	329	208	139	134	25	-	1,042	5,924
5	131	194	509	430	229	149	12	5	1,659	5,983
6	319	507	721	434	179	121	26	-	2,307	4,986
7	288	303	371	323	170	80	33	14	1,582	5,114
8	123	206	457	341	204	195	26	12	1,564	5,982
9	128	185	326	341	240	249	54	29	1,552	6,825
10	80	111	180	233	192	301	129	87	1,313	8,457
11	14	35	91	92	120	227	97	101	777	10,804
12	60	156	520	380	258	182	37	18	1,611	6,346
13	84	191	256	209	89	52	24	30	935	5,492
14	79	156	275	237	207	256	167	73	1,450	7,776
15	200	418	769	590	298	200	21	-	2,496	5,670
16	560	687	588	290	170	74	15	-	2,384	3,848
17	34	54	71	37	20	37	5	18	276	5,087
18	62	135	244	158	97	176	64	119	1,055	6,865
19	99	176	381	359	219	284	156	57	1,731	7,042
20	120	154	284	265	121	98	62	40	1,144	6,099
21	279	374	357	203	70	85	12	-	1,380	4,183
22	173	382	432	224	98	80	17	-	1,406	4,729
23	185	253	465	413	147	125	21	4	1,613	5,611
24	164	317	566	484	268	131	7	-	1,937	5,755
25	157	278	456	458	182	184	24	-	1,739	5,916
26	42	136	391	424	222	235	28	4	1,482	6,683
27	31	139	364	365	177	136	24	4	1,240	6,486
28	62	92	281	303	219	211	88	7	1,263	7,308

Source: Bureau of the Census, Census of Population and Housing, 1960.
Note: Tabulation based on 25% data.

economic variations is evident. The range of median family income by tract in 1959 was from a low of $3,848 in tract 16 to $10,804 in tract 11. Unfortunately, the Bureau of the Census did not generate a distribution of income by tract from the Census Pretest of 1967. The only income information available is a distribution for individuals for the entire city.

Income of Individuals - 1967 Census Pretest, New Haven City

$ under - 2,999	30,621
3,000 - 4,999	18,943
5,000 - 6,999	22,553
7,000 - 8,999	20,327
9,000 - 11,999	20,898
12,000 - 15,999	14,696
16,000 and over	12,860
	140,897

Historically, the large urban centers of the United States have been the homes of substantial numbers of persons born in foreign countries. With the passage of time and the continued restriction on foreign immigration, the "foreign born" population has become less significant. The table on page 25 shows that in 1967 the highest percent of persons born in a foreign country was in Tract 6 and this amounted to only 6.8%. However, a new form of in-migration has become significant, that is, immigration into urban centers from other parts of the United States. Characteristically, a considerable percent of Americans move from one State to another and since World War II movement from the South, particularly of Negros, has been important. No distribution by race in terms of persons born in another State was generated for the 1967 census. However, the table on page 26 shows the number of persons born in another State grouped in terms of New England and Mid-Atlantic, South, and All Others. It will be noted that the percent of persons born in another State by tract is relatively low

Persons Born in a Foreign Country
by Tract, New Haven City - 1967

Tract	Total Number	Percent
1	87	0.6
2	16	0.1
3	395	2.9
4	339	2.5
5	640	4.7
6	912	6.8
7	768	5.7
8	754	5.6
9	769	5.7
10	405	3.0
11	225	1.7
12	629	4.7
13	365	2.7
14	658	4.9
15	361	2.7
16	282	2.1
17	352	2.6
18	604	4.5
19	784	5.8
20	530	3.9
21	215	1.6
22	272	2.0
23	597	4.4
24	505	3.7
25	515	3.8
26	547	4.1
27	481	3.6
28	491	3.6
Total	13,498	100.0

Source: Special Census, New Haven City, 1967.
Note: Tabulation based on 25% data.

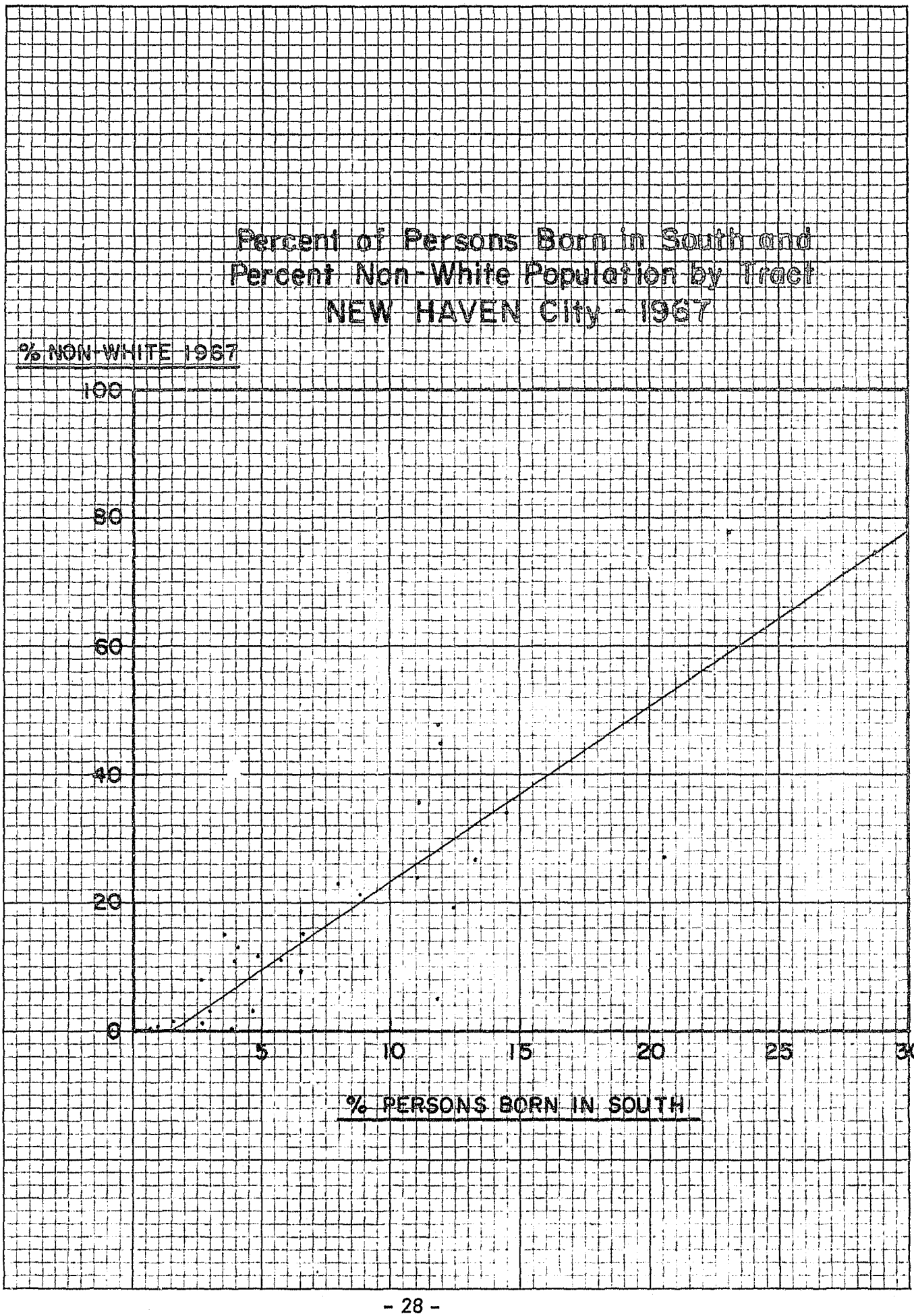
Persons Born in Another State
by Tract

New Haven City - 1967

Tract	New England and Mid-Atlantic		South (Southeast, East and West of Miss.)		All Others		Tract	
	Total	Percent	Total	Percent	Total	Percent	Total	Percent
1	814	86.3	62	6.6	67	7.10	943	0.7
2	108	69.7	32	20.6	15	9.67	155	0.1
3	3355	84.9	322	8.1	273	6.91	3950	3.1
4	2949	93.8	126	4.0	66	2.10	3141	2.5
5	3936	80.2	714	14.6	255	5.19	4905	3.9
6	6040	84.8	852	11.9	228	3.20	7120	5.6
7	4562	78.8	776	13.4	447	7.72	5785	4.5
8	3899	87.3	397	8.9	167	3.74	4463	3.5
9	3634	91.7	123	3.0	206	5.19	3963	3.1
10	3851	94.2	110	2.7	128	3.13	4089	3.2
11	2711	94.4	45	1.6	117	4.07	2873	2.3
12	4495	85.6	586	11.2	169	3.21	5250	4.1
13	4073	86.6	536	11.3	93	1.97	4702	3.7
14	3816	89.8	286	6.7	147	3.45	4249	3.3
15	6319	68.7	2666	28.9	220	2.39	9205	7.2
16	5466	71.7	1764	23.1	397	5.20	7627	6.0
17	3456	67.1	614	11.9	1082	21.00	5152	4.0
18	3338	73.3	516	12.5	698	15.33	4552	3.6
19	4354	88.3	235	4.7	340	6.89	4929	3.9
20	2656	88.9	117	3.9	213	7.13	2986	2.3
21	1822	83.2	264	12.0	104	4.74	2190	1.7
22	1642	90.5	104	5.7	68	3.74	1814	1.4
23	4195	86.7	172	3.6	475	10.19	4842	3.8
24	4497	91.1	205	4.2	233	4.72	4935	3.9
25	4954	94.8	145	2.7	131	2.50	5230	4.1
26	7391	92.9	392	4.9	174	2.18	7957	6.3
27	4591	94.1	54	1.0	236	4.83	4881	3.8
28	5298	97.9	39	0.7	75	1.38	5412	4.3
Total	108,223	85.0	12,309	9.6	6,768	5.31	127,300	100.0

Source: Special Census, New Haven City, 1967.
Note: Tabulation is based on 25% data.

for most tracts but that the percent of persons born in the South by tracts is high for many tracts. It is reasonable to assume that most of the persons born in the South who were living in New Haven in 1967 were Negro. To test this hypothesis the percent of persons born in the South by tract was correlated with the percent non-white in the same tracts. The scatter diagram on page 28 shows the relationship. The co-efficient of determination was 77.01% and the standard error of estimate 10.06%. This analysis is an illustration of the type of relationships which can be developed from census-type data.



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CHAPTER III

RECORD PROCEDURES IN THE NEW HAVEN POLICE DEPARTMENT

The New Haven Police Department

At the time of the initiation of this O.L.E.A. project the New Haven Police Department operated with two precincts. Precinct No. 1 had about 140 patrolmen assigned to it and Precinct No. 2 about 100 patrolmen. The Department's strength consisted of a chief of police, 4 chief inspectors, 2 deputy chief inspectors, 10 captains, 13 lieutenants, 23 sergeants, 37 detectives, 276 patrolmen and miscellaneous personnel to a total number in the Department of 461. In 1967, there was no distinct unit specifically assigned to the records and statistical function.

Records were kept of activities in three major areas: complaint activity, arrest activity, and motor vehicle accident data. Since the purpose of this research project was to relate census-type data to police department data, it is essential to describe the types of data available in the New Haven Police Department. A considerable portion of the project resources were expended within the Police Department in an effort to assist that Department in gathering and maintaining more useful records. Circumstances impacting upon the police situation in the City of New Haven also led to a reinforced effort to improve record keeping and there can be no doubt that the present substantially improved records situation was, in part at least, a consequence of the support available from this project.

In 1967, and for many years prior thereto, the source document for complaints handled by the Patrol Division of the Department was the Patrolman's Station Report. In this report the officer summarized his activity in handling complaint assignments. These reports were transcribed by hand into a large daily log called the Complaint Book. There were two such logs, one kept in each precinct. In addition, the Plainclothes Divisions which included the Detective Division, the Gambling and Narcotics Division, and the Youth Division, recorded details of complaints on lettersize complaint forms. Such information was kept in the Plainclothes Divisions. Under this system there was no central records procedure nor were any of the data in machine processable format. There was universal agreement within the Department that the procedures required a fundamental overhaul, but resources to accomplish this were not available.

The second category of police data related to arrest activity. Such information was gathered by the two precincts' Traffic and Plainclothes Divisions. Arrest information was transmitted by telephone to a recording officer who entered it on a Master Daily Arrest Sheet. In addition, as required by the State of Connecticut, arrest information was recorded on a Circuit Court Uniform Arrest Report (Chapter IV discusses Court record information). The third type of police data related to motor vehicle accidents in respect to which all Connecticut police agencies used a standard form designated, Police Report of Motor Vehicle Traffic Accident. Information from these reports was retained in the Traffic Division.

Impact of the New Haven Disturbances

While the information on complaints and arrests was provided in the required form to the Federal Bureau of Investigation for their Uniform Crime Reports, there was essentially no effective use for analytical or manpower allocation purposes of police data within the New Haven Department. At one point, presumably about the year 1946, annual arrest data back to 1861 were graphed and the analyst commented in the following intriguing manner.

> "The results show declines in other assault, larceny, and burglary; a steady rate for murder, aggravated assault, and manslaughter; and increases for forcible rape and robbery. The declines in other assaults and larcenies were attributed to changes in arresting policies over the years. The increases in forcible rape and robbery were regarded as results of the diffusion of the auto, and the constant levels of murder, aggravated assault, and manslaughter and the decline in burglary were interpreted as evidence for the gradual urbanization, stabilization, and enrichment of the New Haven population. Also the business cycle was associated with every crime except forcible rape, other assault, and larceny. Crimes against person seemed to show a positive relationship with the business cycle, whereas crimes against property exhibited a negative relationship. Wars did not have a strong influence on any of the crimes examined, although it was weakly associated with larcenies."

In late August 1967, the City of New Haven was rocked by several days of major rioting. The impact was perhaps greater psychologically on the City's leadership than the actual damage done during the disturbances. Mayor Richard C. Lee has been a leader among urban mayors and the extent to which the urban blight in the old city had been ameliorated through massive urban renewal projects made the city notable. In addition, Mayor Lee's vigorous community action programs, particularly through Community Progress, Inc., were regarded nationally as a classic example of an effective anti-poverty program.

On an experimental basis, staff of the O.L.E.A. project transcribed the handwritten information for April 1967, from the two precincts' Complaint Books and machine processed these data in order to generate distributions of complaints by type, hour of day, and other characteristics. With the introduction of a Central Complaint Desk the precinct Complaint Books were discontinued. Following the activation of the Central Complaint Desk the staff of the O.L.E.A. project machine processed information from the CCB-1 forms for the months of August, September, and October 1967. These tabulations for the categories listed above were provided to the Chief and represent the first measurements available in New Haven for such aspects of police activity as response time, activity by squad car, and the like. From this initial effort the New Haven Police Department has refined and expanded the analyses of Central Complaint Desk information and is now exploring the appropriate type of computer capability to be installed in the Department. Currently, an IBM 360 in the Controller's Office has been used together with an IBM 1401 available to the O.L.E.A. project director in New York City.

Selected Tabulations from CCB-1 Forms

As the Central Complaint Desk procedures were refined, and as the training of Complaint Desk personnel proceeded under the officer in charge, Lt. James Shelly, the quality of information improved. Automatic timed stamping was introduced and continuous recording equipment installed to permit subsequent verification of reports. While considerable interest attached to the tabulation of complaints by race it is clear that this category depends upon the judgment of the complaint writer and therefore contains considerable margin for error. Insofar as the information by ethnic group is valid, it threw light upon several aspects of the New Haven environment.

It is sufficient for the purposes of this report, which in no way is concerned with the causes of the disturbances, to point out that there was a sudden realization of the inadequacies of police data, and by the same token, the inadequacies of small area economic and social data. During the disturbances approximately 580 persons were arrested and a confidential analysis of the socio-economic characterisitcs of the arrested persons was prepared. Of the persons arrested 382 were classified as Negro males, 14 Negro females, 53 Puerto Rican males, 124 white males and 7 white females. (Major responsibility for this analysis rests with Dr. John J. Herder, then special assistant to the Mayor and the then Lieutenant James F. Ahern.) With the implementation of Central Complaint Desk procedures the analytical situation underwent substantial improvement. For example, early in 1948, a comparison of ten days in March with ten days in April, in terms of number of complaints, was undertaken for the Chief of the Department in order to test significant differences between the two periods, one of which was characterized by disturbances. The tables on pages 34 and 35 were generated by the staff of this project and permitted a judgment of no significant differences between the weekday disturbances and the weekend disturbances for the two months under study.

Development of the Central Complaint Desk

A Central Complaint Desk is an essential first step in providing useful and reasonably complete information for police management purposes. Even before the disturbances impacted, plans had been developed for a Central Complaint Desk procedure and steps were underway to install the necessary communications equipment and to train personnel to man the desk. The consequence of introducing the Central

NEW HAVEN POLICE DEPARTMENT

March - April

Ten Day Study - Hourly Complaint Totals

	March									
	Fri. 3/1	Sat. 3/2	Sun. 3/3	Mon. 3/4	Tues. 3/5	Wed. 3/6	Thurs. 3/7	Fri. 3/8	Sat. 3/9	Sun 3/10
0001-0100	15	16	9	3	2	4	2	2	13	19
0101-0200	1	9	6	-	4	3	7	9	16	15
0201-0300	5	9	11	-	4	3	3	4	14	5
0301-0400	1	3	8	3	-	2	3	3	5	3
0401-0500	4	2	4	-	3	1	1	1	3	1
0501-0600	5	7	5	1	3	2	1	-	1	2
0601-0700	9	6	5	6	7	5	7	8	8	8
0701-0800	12	8	8	11	12	15	11	15	7	6
0801-0900	22	11	7	16	16	19	21	21	18	8
0901-1000	13	13	11	7	17	11	9	10	11	8
1001-1100	16	15	15	7	7	7	9	14	12	11
1101-1200	12	13	15	11	12	8	8	14	8	16
1201-1300	10	13	10	10	6	8	10	17	14	8
1301-1400	10	18	14	10	11	13	9	10	10	12
1401-1500	25	20	10	19	24	18	17	28	14	17
1501-1600	12	13	10	14	10	10	9	19	17	15
1601-1700	17	13	15	21	12	13	17	10	13	11
1701-1800	14	19	17	23	11	12	20	21	18	11
1801-1900	22	17	11	17	15	14	11	14	14	10
1901-2000	20	18	9	21	16	12	11	17	21	10
2001-2100	10	15	9	9	12	12	15	19	12	13
2101-2200	13	17	12	10	13	15	19	17	18	19
2201-2300	23	12	11	10	16	6	7	10	9	3
2301-2400	20	22	5	15	7	6	9	11	14	7
Total	311	309	237	244	240	219	236	294	290	238

NEW HAVEN POLICE DEPARTMENT

March - April

Ten Day Study - Hourly Complaint Totals

	April									
	Fri. 4/5	Sat. 4/6	Sun. 4/7	Mon. 4/8	Tues. 4/9	Wed. 4/10	Thurs. 4/11	Fri. 4/12	Sat. 4/13	Sun. 4/14
0001-0100	9	18	11	2	7	11	8	10	9	14
0101-0200	6	15	13	6	15	9	5	10	10	12
0201-0300	5	24	14	6	8	7	2	5	5	6
0301-0400	2	9	5	6	2	4	1	4	5	6
0401-0500	1	4	2	-	-	-	2	2	2	1
0501-0600	-	3	2	4	1	2	2	-	4	4
0601-0700	2	3	-	4	3	4	5	3	6	5
0701-0800	9	7	3	8	11	11	12	14	10	8
0801-0900	23	9	9	16	15	25	19	9	11	9
0901-1000	18	17	12	8	15	12	13	8	13	11
1001-1100	12	13	15	10	9	12	13	13	17	10
1101-1200	17	14	15	12	10	15	13	14	13	11
1201-1300	8	15	-	17	10	17	12	11	16	11
1301-1400	11	20	12	11	14	20	11	7	17	8
1401-1500	18	13	8	17	14	25	20	12	20	9
1501-1600	17	12	13	15	16	16	16	12	18	13
1601-1700	4	28	19	14	15	15	20	8	23	19
1701-1800	24	14	15	16	23	15	19	16	16	16
1801-1900	23	13	17	10	15	21	16	11	17	18
1901-2000	30	18	24	17	20	16	12	15	21	24
2001-2100	25	17	13	13	18	15	11	13	15	15
2101-2200	22	23	14	18	20	14	14	10	30	10
2201-2300	17	15	8	15	14	11	14	13	13	9
2301-2400	15	18	13	6	13	9	18	13	17	13
Total	318	342	257	279	288	306	278	223	328	262

Complaint Desk was to eliminate record keeping by the precincts. (The New Haven Department has since consolidated its two precincts.) A Central Complaint Desk form (CCB-1 form shown on page 37) was designed for key-punching. The punchcard format used is shown on page 38 . Tables of the following types may be prepared from such information.

I. Daily

A. Average Response Time
   1. Total
   2. By Major Category

B. Lowest and Highest Response Times
   1. For All Complaints
   2. By Major Category

C. Total Number of Complaints
   1. By Major Categories
   2. Daily Total
   3. Weekly Total

D. Number handled by individual complaint writer

E. Number handled by each car by squad
   1. Total

F. Total time each car is out of service by squad car

II. Monthly

A. Total number of Complaints
   1. Total
   2. Ethnic Groups
   3. Categories

B. Average Response Time
   1. Average for all complaints
   2. Ethnic Groups
   3. Categories

C. Lowest and Highest Response Times
   1. For all Complaints
   2. Ethnic Groups
   3. Category

COMPLAINT NO.	HOW RECEIVED	MONTH-DAY-YEAR	TIME COMPL. RECEIVED	LOCATION OF COMPLAINT (HOUSE NO.)	(STREET NAME)	(FLOOR-ROOM-APT. NO.)
1-6	1. ☐ PHONE 2. ☐ WALK-IN 3. ☐ ADMIN. 4. ☐ PTLM. 7	8-13	14-17	18-21	22-39	40-42

INTERSECTING STREET	COMPLAINANT'S NAME	PHONE NUMBER	RACE	SEX	FIELD OFFICER NUMBER	COMPL. WRITER NUMBER
43-51	DNA	DNA	1. ☐ WHITE 2. ☐ NEGRO 3. ☐ P. RICAN 4. ☐ ALL OTHER 52	1. ☐ MALE 2. ☐ FEMALE 53	54-56	54-56

COMPLAINT CODE	NATURE OF COMPLAINT (USE RADIO CODE NUMBERS)	REGARDING
57-59		DNA

BEAT NO.	CAR NO.	OTHER CARS	SUPV. CAR NO.	FOOT PTLM. DISPATCHED NO.	TIME DISPATCHED	TIME OF ARRIVAL	TIME CLEARED
60-61	62-63	64	65-66	64-66	67-70	71-74	75-78

OTHER AGENCY NOTIFIED

1. ☐ DETECTIVE 2. ☐ YOUTH DIVISION 3. ☐ GAMBLING & NARCOTICS 4. ☐ AMBULANCE 5. ☐ FIRE DEPARTMENT

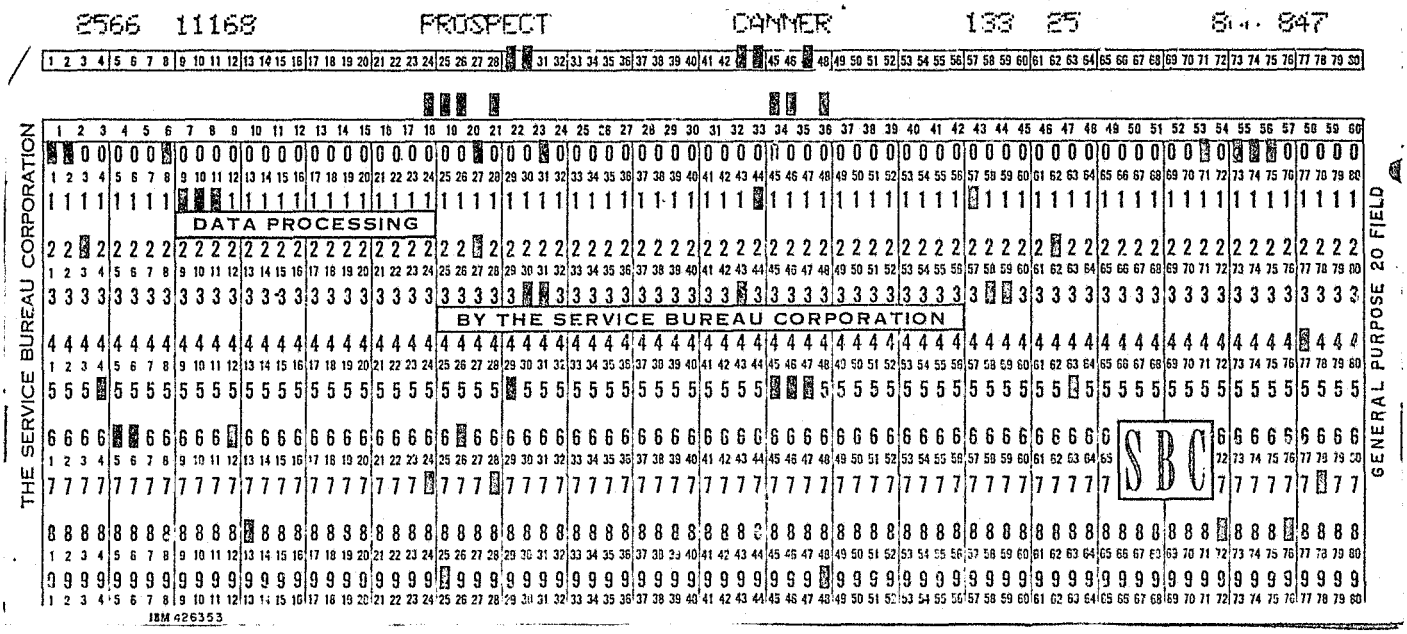
6. ☐ PUBLIC WORKS 7. ☐ PARK DEPARTMENT 8. ☐ UTILITIES 9. ☐ ALL OTHER-SPECIFY _____

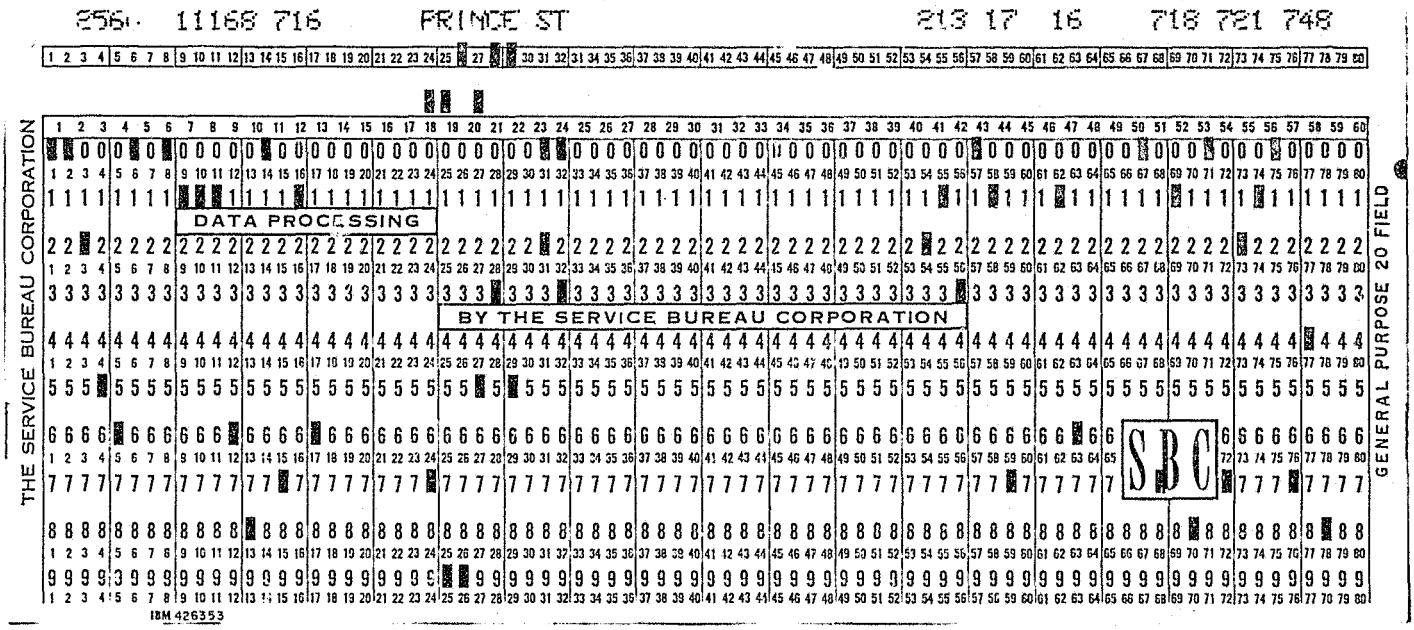
79

ADDITIONAL DETAILS

DNA

CCB-1 7-67 COMMUNICATIONS DIVISION NEW HAVEN POLICE DEPARTMENT


2566 11168 PROSPECT CANNER 133 25 8.. 847
DATA PROCESSING
BY THE SERVICE BUREAU CORPORATION
SBC
THE SERVICE BUREAU CORPORATION
GENERAL PURPOSE 20 FIELD
IBM 426353


256. 11168 716 PRINCE ST 213 17 16 718 721 748
DATA PROCESSING
BY THE SERVICE BUREAU CORPORATION
SBC
THE SERVICE BUREAU CORPORATION
GENERAL PURPOSE 20 FIELD
IBM 426353

For example, in October 1967, a total of 6,783 complaints were recorded, of these 1,237 had no ethnic coding. Of the remainder, 4,341 were classified as white, 1,139 as Negro and 66 as Puerto Rican and All Others. The average response time to complaints classified by ethnic group indicated: white 4.7 minutes, Negro 6.3 minutes and Puerto Rican and All Others 4.9 minutes. In general, however, the disturbances by race in terms of location of complaint, appear to be consistent with the population characteristics of the area. Subsequent to the completion of action in the field by the assigned squad car, the information on the CCB-1 form is checked against the patrolman's field report.

The following are four tables prepared by the staff of the O.L.E.A. project which indicate the kinds of information which are available for the first time to police commanders in New Haven.

Number of Complaints

October 1967

Hour	Sun. (5)	Mon. (5)	Tues. (5)	Wed. (4)	Thurs. (4)	Fri. (4)	Sat. (4)	TOTAL
0001-0059	63	15	27	16	21	30	55	227
0100-0159	65	24	19	21	34	33	57	253
0200-0259	40	11	18	3	21	13	32	138
0300-0359	15	6	8	6	9	10	16	70
0400-0459	15	7	4	8	9	4	15	62
0500-0559	10	2	6	6	3	3	9	39
0600-0659	6	13	8	9	12	10	14	72
0700-0759	14	40	29	18	30	24	19	174
0800-0859	21	48	41	21	22	37	20	210
0900-0959	34	43	25	31	24	38	35	230
1000-1059	35	49	45	24	38	36	40	267
1100-1159	61	44	31	30	21	29	52	268
1200-1259	44	28	32	34	32	27	43	240
1300-1359	49	32	23	26	26	29	34	219
1400-1459	49	32	36	23	28	36	59	263
1500-1559	49	52	35	35	41	46	62	320
1600-1659	72	64	75	50	44	57	48	410
1700-1759	54	77	78	56	59	63	53	440
1800-1859	60	78	70	49	51	50	55	413
1900-1959	37	71	105	49	48	54	71	435
2000-2059	52	54	73	32	49	60	72	392
2100-2159	46	59	68	53	42	47	55	370
2200-2259	43	51	39	31	50	46	59	319
2300-2400	29	40	36	36	27	40	37	245
Total	963	940	931	667	741	822	1,012	6,076

Source: Police Department, New Haven City, 1967.

OCTOBER, 1967 - COMPLAINTS

I C1. Total Complaints by Major Category

October	Misc. Incident	Crime Against Person	Robbery	Burglary	General Case	Hosp.	Motor Vehicle Theft
1	94	5	1	5	23	5	16
2	64	3	0	8	28	6	5
3	84	4	1	12	25	3	7
4	74	1	0	2	17	6	6
5	88	4	0	7	15	4	14
6	98	5	1	8	19	3	8
7	152	6	0	7	26	10	10
8	75	2	0	7	23	3	11
9	85	2	1	11	32	4	11
10	80	6	0	9	18	5	6
11	69	1	0	7	23	7	20
12	88	4	0	14	26	4	9
13	105	7	1	12	15	3	16
14	128	2	0	6	20	6	11
15	126	6	0	11	20	5	13
16	73	2	1	9	12	7	13
17	86	2	0	4	21	4	13
18	106	1	0	13	17	3	11
19	130	6	0	7	15	4	14
20	111	5	0	8	24	4	19
21	129	9	0	16	30	9	17
22	139	3	1	9	25	5	8
23	89	4	0	13	50	11	13
24	69	6	0	7	23	2	7
25	91	3	0	9	29	4	6
26	93	5	0	5	26	1	16
27	139	6	0	7	30	4	14
28	154	9	0	8	34	6	15
29	105	3	0	12	20	4	10
30	97	3	0	11	53	11	11
31	87	5	0	10	45	7	15

OCTOBER, 1967

I. Daily Average Response Time by Category

Date	Misc. Incident	Crime Against Person	General Case	Robbery	Burglary	Hospitalization	Motor Vehicle
1	4.05	4.20	4.68	2.00	4.60	2.75	4.69
2	5.31	3.50	3.30	-	3.38	3.50	4.00
3	3.86	5.00	1.58	--	5.09	2.50	5.80
4	5.82	7.00	5.21	--	5.00	4.33	1.50
5	11.79	3.33	6.57	--	15.17	7.00	3.92
6	4.50	4.00	3.88	1.00	4.13	6.50	4.00
7	4.19	7.25	5.13	--	4.80	4.56	5.14
8	4.39	6.00	4.90	--	2.00	3.00	3.33
9	4.55	5.50	5.20	--	4.36	4.67	4.70
10	5.02	5.20	4.44	--	5.50	4.60	2.40
11	4.15	6.00	5.55	--	6.50	3.00	3.92
12	4.63	4.00	4.91	--	4.54	2.75	4.67
13	3.98	4.14	12.00	4.00	4.55	4.67	4.46
14	4.25	5.00	4.68	--	4.67	3.00	4.50
15	4.61	2.83	4.17	--	5.00	5.20	5.38
16	4.23	10.50	10.00	8.00	3.33	2.60	7.85
17	4.46	--	5.40	--	1.50	2.75	1.15
18	4.44	1.00	8.09	--	3.42	5.00	4.60
19	3.92	5.00	4.40	--	18.33	4.00	3.31
20	4.48	3.75	4.89	--	2.00	6.00	5.40
21	2.70	4.88	4.83	--	3.81	4.00	1.75
22	4.06	8.00	4.10	2.00	3.75	4.50	4.75
23	3.60	4.00	5.33	--	3.92	3.70	6.18
24	5.05	5.33	5.83	--	3.14	2.50	3.00
25	3.80	5.67	5.11	--	4.89	2.67	5.50
26	3.71	7.00	5.00	--	2.67	--	5.69
27	4.44	5.25	5.33	--	4.60	4.33	3.17
28	3.90	4.00	5.24	--	2.00	3.50	5.67
29	3.33	4.00	4.16	--	2.18	2.75	3.50
30	3.84	4.00	5.10	--	4.13	3.22	5.20
31	2.83	4.60	4.38	--	2.78	2.80	3.15

I F. Time Out of Service - by Squad Car

Date	Car #	Time
10/1	3	27
	10	294
	11	439
	12	206
	14	186
	15	256
	16	250
	17	308
	18	338
	21	198
	22	201
	23	100
	24	201
	25	209
	26	139
	27	277
	28	180
	29	60
	30	43
	31	186
	55	3
10/2	3	25
	10	131
	11	193
	12	131
	14	288
	15	411
	16	290
	17	295
	18	125
	21	201
	22	623
	23	108
	24	258
	25	129
	26	103
	27	293
10/2	28	339
	39	283
	30	17
	31	74
10/3	10	341
	11	175
	12	268
	14	206
	15	268
	16	511
	17	312
	18	400
	21	50
	22	250
	23	154
	24	249
	25	137
	26	311
	27	271
	28	143
	29	61
	30	90
	31	8
	68	21
10/4	10	90
	11	200
	12	229
	14	121
	15	220
	16	333
	17	224
	18	135
	21	24
	22	52
	23	203
	24	151
	25	177
	26	199
	27	84
	28	17
	29	33
	30	186
	31	189
	54	5
10/5	10	206
	11	253
	12	72
	14	262
	15	348
	16	429
	17	238
	18	342
	21	178
	22	172
	23	75
	24	258
	25	100
	26	184
	27	19
	28	173
	29	63
	30	49
	31	69
	63	11
	65	7
10/6	10	203
	11	457
	12	297
	14	110
	15	352
	16	354
	17	212
	18	428
	21	197
	22	260
	23	200
	24	212
	25	61
	26	231
	27	408
	28	430
	29	147
	30	84
	31	10
	62	3
10/7	10	464
	11	492
	12	555
	14	269
	15	213
	16	588
	17	323
	18	250
	21	319
	22	237
	23	111
	24	341
	25	385
	26	219
	27	195
	28	242
	29	261
	30	231
	31	129
	37	56
	92	52
10/8	10	200
	11	274
	12	170
	14	22
	15	498
	16	382
	17	194
	18	255
	21	249
	22	493
	23	161
	24	163
	25	405
	26	88
	27	247
	28	157
	29	7
	30	117
	31	189
	37	45

CHAPTER IV

COURT RECORDS FOR NEW HAVEN ARRESTS

Circuit Court Data

The Circuit Courts of the State of Connecticut maintain a Central Accounting Unit at Middletown, Connecticut where the records of court activity are machine processed. At the present time, unit record equipment is in use rather than EDP processing. Interest in the Circuit Court procedures arises from the possibility of relating Circuit Court information to New Haven Police Department records. For this reason court records have been investigated in connection with this research project.

The basic source document for the Circuit Court Central Accounting procedures is the Uniform Arrest Report (CCT38). The Uniform Arrest Report is filled out by the arresting officer at the time of arrest. It provides name of the accused, home address, sex, color, date and place of birth as well as department case number, description of charges and information on action taken by the court. Copy of this form appears on the following page.

UNIFORM ARREST REPORT No. B252226

NAME OF ACCUSED (LAST, FIRST, MIDDLE)							SOCIAL SECURITY NO.
ALIASES OR MAIDEN NAME							OPERATORS LIC. NO.
NO. AND STREET							DEPT. CASE NO.
CITY OR TOWN					STATE		DATE & TIME ARRESTED M
SEX	COLOR	DATE OF BIRTH	MONTH	DAY	YEAR	PLACE OF BIRTH	PLACE OF ARREST
☐ SURETY ☐ DETAINED	AMOUNT OF BOND $	CASH ☐ BONDSMAN'S OTHER ☐ LICENSE NO.				FINGERPRINTED? ☐ YES ☐ NO	( ) SUPERIOR COURT ( ) CIRCUIT COURT (NO.)
JAIL		M.V. ( )	ALC. ( )	NAR. ( )	SD. ( )	NO RECORD REQUIRED- ☐	TRIAL DATE
CHARGE(S)							PLACE OF TRIAL
							ALIEN REGISTRATION NO.
ARRESTING OFFICER			SHIELD NO.			DEPARTMENT OR STATION	

FORM CCT 38 REV. 10-66

While the Circuit Court data provide an invaluable source of analytical information in respect to arrested persons and the disposition of their cases, it was not possible to relate the court records to the New Haven Police Department complaint records. The absence of a common identifier in the punch cards produced by the Circuit Court Central Accounting Unit made a match impossible. The absence of such a common identifier is explained by the historical fact that no police department in Connecticut had attempted machine processed matching of police and court records. As a result of the experimental work done in this research project the recommendation was made by the New Haven Police Department that the police department complaint record number be added to the court record punch card. When this recommendation is implemented it will be possible to trace arrested persons from the moment of arrest through final disposition of their cases by the Circuit Court.

Matching Experiment

A matching experiment was undertaken early in 1968, to attempt to match court records manually in two directions on individually arrested persons. One attempt was made between the court records and arrest records and the other was between court records and individual schedules obtained during the Census Pre-Test of 1967.

In structuring the matching experiment a random sample was drawn from a listing of Circuit Court arrest records for the 6th Circuit Court which is located in the City of New Haven. This random sample provided the docket number for each arrested person's case. The docket was then examined at the Circuit Court and certain identifying information was obtained about the arrested persons. The table on the following page identifies the information obtainable from the docket.

Docket Number Name SAMPLE - NOT MATCHED

Docket Number	Name	Number and St	City and State	Sex	Color	Birth	Place of Birth	Date of Arrest
48001	Davis, Clinton	212 Hamilton Street	New Haven, Conn.	M	C	1949	Richmond Cty, Ga.	4-20-67
45021	Lowry, Edward	19 Little Bay Lane	Branford, Conn.	M	C	1944	Illinois	5-16-67
45151	Pearson, Henry	641 Legion Ave.	New Haven, Conn.	M	C	1950	So. Carolina	5-12-67
45831	Schine, Morris	184 Buena Vista, Rd.	Bridgeport, Conn.	M	W	1936	Bridgeport, Conn.	12-31-66
46221	Deleo, Joan	198 Peck Ave.	West Haven, Conn.	F	W	1934	New Haven, Conn.	1-7-67

Matching Experiment

The project staff provided the Census Use Office 136 records from the Circuit Court data. The following was the outcome of the matching experiment.

	Town	Block Face Area Match	Household Match	Person Match Age, Race, Sex	Person * Match Age, Race, Sex, Name
Significant Matching Percentage For Police Study	100%	70%	60%	50%	80%

* By hand using microfilm

Several matching experiments were conducted by the Census Use Office including area matching address matching, and individual matching. In the case of the arrest data, the block face area match produced 70% matches while the person match, using age, race, sex, and name achieved 80%, but required hand procedures using microfilm of the census schedules. Matching by Social Security Number is not relevant to census work since the number will not appear on the 1970 census questionnaire. This is a concession to the critics of the "invasion of privacy" issue.

It is evident that considerable information can be developed from the docket which is not available from the Circuit Court punch cards which do not provide name, race, or place of birth. The Circuit Court detail cards are in the following format.

Circuit Court Detail Cards

Fields	Contents
1-4	Month and Day of Court
3	Jury Codes 1 Jury of Six 2 Jury of Twelve
6-8	Alcoholic) Narcotic) Involved in the offense Sexual Deviate)
9-10	Year of Birth
11	Sex 1 Male 2 Female
12-16	Statute Connecticut General Statutes except 53-000 code for any town ordinance.
17	Plea Code Guilty 1 Not Guilty 2 Nolo 3
18	Judgement Code Guilty 1 Not Guilty 2 Bond Forfeiture 3 Nolled 4 Bind Over Superior Court 5 Dismissed 6 Trans. to Juvenile Court 7 Judgement Suspended 8
19-21	Jail Term 30 d - 30 days 3 m - 3 months
22-25	Fine Dollar amount x in 25 Violation Bureau Payment
26-29	Remitted Amount of fine Remitted by Judge
30	Imprisonment Jailed in lieu of fine
31	Appeal If the case is appealed this column is punched
32-34	Bondsman's No.

Fields	Contents
35-38	Amount of Bond x in 38 No Bail Compact
39-41	Officer's Shield No.
42	Police Department 1 - State Police 2 - Local 3 - All others (i.e.: Game Wardens, Dog Wardens, Water Districts, etc.)
43-44	Type of Case MV - Motor Vehicle CR - Criminal
45-46	Circuit No.
47-51	Docket No. x 51 revised abstract
52-54	Offense Town
55-56	Circuit No.
57-61	Receipt No.
62-63	Month
64-65	Day of Month
66	Type of Case 8 - Motor Vehicle 9 - Criminal
67-68	Transaction Code 51 - Motor Vehicle 52 - Misdemeanor 53 - Felony
69-75	Amount Collected in dollars and cents
76-78	Trial Town
79-80	Blank Columns

A manual search for the sample of approximately 150 cases in the files of the New Haven Police Department presented a number of difficulties in matching. Although the Uniform Arrest Report form is filled out by the arresting officer and a carbon of the snap-out form is retained in the department file, many of the forms are not filled out completely. A more basic problem arises in that certain elements of information on the arrested person are converted or added to after the arrested person moves through the court process. As mentioned above, the adding of the common identifier will obviate these problems in making a match within the police department files.

At the request of the Census Use Office the random sample of arrested persons was turned over for the purpose of conducting a matching experiment with Census Pre-Test schedules. The Bureau of the Census is interested in matching experiments in order to gain a feeling in respect to completeness and accuracy of the original enumerative effort. Analagous matching experiments have been conducted in respect to school records, hospital patient information and other lists of individuals. Because of the confidentiality regulations under which only sworn employees of the Bureau of the Census may examine individual schedules, no results of specific matches are reported. In this particular experiment the Census Use Office in New Haven undertook a manual match reading microfilms of the individual schedules. A computer match was also attempted. Due to a combination of technical difficulties no useful results from this matching experiment were reported from the Census Use Office.

Court Record Tabulations

The punch cards from the Circuit Court Central Accounting Unit were used to prepare a number of experimental listings. When a common identifier is added to the punchcard, listings can be related to New Haven Police Department arrest data. However, as indicated in Chapter III, record procedures within the Department still do not permit a match between complaint information from the CCB-1 report form and arrest information. Tabulations made from the Circuit Court data may be used to develop a profile of arrested persons, offenses for which arrested, and disposition in the criminal justice process. Thus, using records of arrested persons handled by the 6th Circuit Court during the months of April, May, and June 1967, showed the following statute code violations to have been most common:

Frequency of State Code Violations

Offense	Frequency
Intoxication	873
Breach of Peace	558
Allowing Person under 16 to operate Motor Vehicle	147
Failure to obey traffic signal light	145
Failure to obey Stop sign	127
Following too closely	108
General larceny	102
Resisting officer	82
Gaming in general	76
All other Offenses	2,274
Total	4,492

A tabulation of arrests by officer's shield number provided interesting information on activities of individual members of the department. Of course, the number of arrests made by individual officers was closely related to the needs of the current assignment. Other possible listings from the court schedules included: Number of Offenses by Category - Alcoholic, Narcotics, Sexual Deviate; Age and Sex of Offenders by Class of Offense; Statute Code by Frequency of Offense; Type of Case, Motor Vehicle or Criminal; Result of Court Action by Offense; Jail Term by Length and Fine by Amount. Tabulations of this type while not directly related to police management problems can, with analysis, throw light on the "quality" of arrests. In addition, data of this type will highlight operational attitudes of the courts.[1]

[1] Consult The President's Commission on Law Enforcement and Administration of Justice, "The Challenge of Crime in a Free Society," p. 8, for a chart reflecting the entire criminal justice system.

The New York State Identification and Intelligence System (NYSIIS), with a powerful computer capability, is developing a data base of over 500,000 criminal history records which will permit an analagous type of analysis of the characteristics of arrested persons.[2]

The Connecticut Circuit Court Data should be utilized in relationship to the New Haven Police Department arrest and complaint files. To accomplish this will require the implementation of the recommendations developed from this project.

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[2] NYSIIS Against Crime, Albany, N.Y.: 1967.

CHAPTER V

CENSUS PRETEST DATA OUTPUT

Output for General Distribution

As has been indicated in Chapter I, the major thrust of the Census Pretest in 1967 in the City of New Haven was to experiment with proposed procedures to be used in the United States Census in 1970. As a by-product of the census effort in New Haven, a Census Use Office was established primarily to investigate ways in which small area data (tract and block data) might be used at the local level. While the Bureau of the Census has tried to preserve uniformity in the geographical boundaries of tracts, changes in cities have made this an unattainable goal. Long-term comparisons from census to census by tract and block are affected by new streets, block combinations and other changes. Appendix C provides a list of the census tract and block equivalents from the census of 1960 and the census pretest of 1967. Publication of statistical data resulting from the census pretest was thus not a major objective of the Bureau of the Census. In Chapter II reference has been made to the only published report to emerge from the pre-test effort, that is the report of December 1, 1967, which presented age, race, and sex data on a tract basis.

It has previously been indicated that the Census Use Office worked with the enumerators' reports and tabulations prepared therefrom without the possibility

of further field verification. As a consequence, the series of experimental efforts conducted by the Census Use Office should be regarded essentially as demonstrations of possible manipulations of data rather than having substantive content. For example, a series of narrative format analyses were prepared for each tract, each such analysis consisting of 12 pages. This type of analysis was intended for the general user.

The Imager Series

Consistent with the pattern of the 1960 census, all persons receiving questionnaires in the 1967 pretest were asked a limited number of questions. The responses to these questions were referred to as the 100% data, that is, 100% of all persons who responded had been asked this group of questions. The 100% data was made available by the Bureau of the Census in the Imager series which consisted of 41 tract tables for the City of New Haven and 25 block tables. The Imager series was delivered in the form of 8-1/2 x 11 size reproductions of computer printouts and were made available to users for purchase. In the original specifications of the data requirements for the O.L.E.A. study, the following tabulation request was specified which, it was felt, would provide the essential socio-economic variables for correlation with police data.

Tabulation Request Based Upon 100% Data

I. Population Characteristics

1. Number of Persons
2. Number of heads of households
3. Number of persons, male and number of persons, female
   - a. 0-5 years of age
   - b. 6-15 years of age
   - c. 16-18 years of age
   - d. single age groups: 15-16-17-18
   - e. 19-21
   - f. 22-24
   - g. 25-64
   - h. 65-over

4. Race

a. Number of persons, White
b. Number of persons, Negro
c. Number of persons, Other

5. Household Size (number of households)

a. 1 person
b. 2 persons
c. 3 persons
d. 4 persons
e. 5 persons
f. 6 persons or more

II. Housing Characteristics

1. Number of dwelling units

2. Number of persons per dwelling unit

a. 1
b. 2
c. 3
d. 4
e. 5
f. 6 or more

III. 3. Dwelling unit value:

a. number of dwelling units owned valued at:

1. less than $10,000
2. from $10,000 to $19,999
3. from $20,000 to $29,999
4. from $30,000 to $39,999
5. from $40,000 or over

b. number of dwelling units rented at:

1. less than $60 per month
2. from $60 to $90 per month
3. from $91 to $120 per month
4. more than $120 per month

The Imager series provided the substantial bulk of the tabulations requested. However, the unit of tabulation was limited to the tract and block and did not include block face information. Data not available through the Imager series involved special tabulations procedures. Even in the case of the Imager series confidentiality rules, as interpreted by the Bureau of the Census, resulted in some cases in the combination of blocks or in the failure to printout certain data. For example, when fewer than five housing units were contained on a single block, the data for that block was combined with the information for a contiguous block within the tract. Similar confidentiality procedures suppressed certain breakdowns of population characteristics such as the ethnic distribution of population for certain blocks.

Special Tabulations

In order to meet the stated objectives of the O.L.E.A. project it was necessary to request special tabulations from the Bureau of the Census. The special tabulations related to two major categories, 100% data sorted in a special way (for example, population by single age groups), data tabulated on a special geographic basis (for example, New Haven Traffic Zones). Special tabulations were prepared on the basis of a "user contract" under which the Bureau of the Census charged the O.L.E.A. project for some of the expenses involved. Due to a combination of technical and administrative factors, the special tabulations were not delivered until late in September 1968. Unless the programming problems encountered in the New Haven experiments are resolved by the Bureau of the Census substantial delays in any special tabulations of the 1970 census can be anticipated.

The Bureau of the Census made no general distribution of tables based upon 25% data. These data were the result of responses to the "long form" questionnaire which was provided to 25% of the respondents. In general, the 25% data relate to additional characteristics of the population such as education, employment, and income. The following was the tabulation requested by this project for 25% data.

Tabulation Request Based Upon 25% Data

1. Education

   a. Number of persons - none
   b. Number of persons 1-8 years
   c. Number of persons 9-12 years
   d. Number completed high school
   e. Number of persons with 1-4 years of college
   f. Number of persons completed college
   g. Number of persons with additional education

2. Employed Persons - Number of employed persons per household category

   a. Number of families with 1 person working full or parttime
   b. Number of families with two persons working full or parttime
   c. Number of families with three persons working full or parttime
   d. Number of families with four or more persons working full or parttime

3. Type of Employment

   a. Number of industrial employees
   b. Number of service employees
   c. Number of professional employees

4. Number of Unemployed

5. Family Income

   a. Number of families with income less than $3,000
   b. Number of families with income between $3,000 - $5,000
   c. Number of families with income between $5,001 - $7,000
   d. Number of families with income between $7,001 - $9,000
   e. Number of families with income between $9,001 - $12,000
   f. Number of families with income between $12,001 - $16,000
   g. Number of families with income greater than - $16,001 a year

Tabulation Request Based Upon 25% Data - cont'd

6. Number of licensed motor vehicle operators

7. Number of cars per dwelling unit

8. Tabulation of number of persons born in another State or foreign country by name of State or country (from Question 13 a.)

All of these data represented special tabulations for which a "user contract" was negotiated. No delivery was made for the block face unit of aggregation. For technical reasons several of the tabulations of 25% data presented problems arising principally in programming. Thus, the usefulness of the tabulation on education was affected by employing as the universe the total population rather than the population 25 years old and over. Small discrepancies arose between the totals by tract in the 25% tabulations and the 100% tabulations. In general, these discrepancies were limited to Tract 1. Appendix B contains 8 tables all of which, except for the first two, were generated from the 25% data. The special tabulations by traffic zone were part of an experimental use: project developed by the Traffic Department of the City of New Haven. Because of staffing difficulties it is understood that the Traffic Department has not made intensive use of census data by traffic zone.

DIME File

When technical planning for the 1970 census began it was recognized that the use of mail-out/mail-back procedures would require the development of a complete address directory for all cities. Such an address directory should include all street addresses at which dwelling units are located. With the dramatic improvements in computer techniques the capability came into being to develop a geo-coding scheme to identify sides of city blocks and the street addresses falling on each block. Further technical possibilities existed to relate the block faces to a geographic grid system involving the use of lattitudinal and longitudinal identifiers for the ends of block faces or for street intersections. In part, the interest in geo-coding schemes arose from the possibility of producing computer generated maps. Essentially, if individual addresses can be identified to block faces and these block faces can be used as "building blocks", census data can then be used effectively for local administrative purposes. In the New Haven experience several administrative areas were in use in various city agencies such as traffic zones (approximately 1/6th tract size), community action and re-development project areas, school attendance areas and telephone cable or market areas.

The first effort of the Bureau of the Census in this area of study was to create a geographic base file for mapping. This was the Address Coding Guide which was generated in mid-1967. (A printout of the Address Coding Guide for Orange, Connecticut is shown on page 62.) The guide did not prove satisfactory. A new experiental system was developed called DIME (Dual Independent Map Encoding). The DIME system employs numerical encoding of map features which allows for computer editing of the file and

ADDRESS CODING GUIDE IN SORT BY STREET NAME WITHIN TOWN

ST	CNTY	ZIP	70 TRC	QFR TRC	PRM DIR	STREET	2ND DIR	ST CD	LOW NO.	HIGH NO.	BLK
16	005	06477	50	01		SUMMIT DR		01472	401	531	212
16	005	06477	50	01		SUMMIT DR		01472	498	508	210
16	005	06477	50	01		SUMMIT DR		01472	510	650	209
16	005	06477	50	01		SUMMIT DR		01472	533	699	201
16	005	06477	50	01		SUMMIT DR		01472	652	698	216
16	005	06477	50	04		SUNSET DR		01480	1	99	208
16	005	06477	50	04		SUNSET DR		01480	2	98	208
16	005	06477	50	01		SURREY DR		01488	100	298	314
16	005	06477	50	01		SURREY DR		01488	101	299	314
16	005	06477	50	04		SYBIL ST		01496	300	398	217
16	005	06477	50	04		SYBIL ST		01496	301	399	220
16	005	06477	50	03		SYCAMORE LANE		01504	400	498	213
16	005	06477	50	03		SYCAMORE LANE		01504	401	499	214
16	005	06477	50	02		SYLVAN VALLY RD		01512	200	298	107
16	005	06477	50	02		SYLVAN VALLY RD		01512	201	299	105
16	005	06477	50	01		TAFT RD		01520	800	898	110
16	005	06477	50	01		TAFT RD		01520	801	899	111
16	005	06477	50	01		TALL TIMBER RD		01528	800	898	101
16	005	06477	50	01		TALL TIMBER RD		01528	801	899	101
16	005	06477	50	04		TAULMAN RD		01536	300	344	201
16	005	06477	50	04		TAULMAN RD		01536	301	499	211
16	005	06477	50	04		TAULMAN RD		01536	350	398	214
16	005	06477	50	04		TAULMAN RD		01536	400	498	201
16	005	06477	50	03		TREAT LANE		01544	300	462	129
16	005	06477	50	03		TREAT LANE		01544	301	459	136
16	005	06477	50	03		TREAT LANE		01544	461	499	136
16	005	06477	50	03		TREAT LANE		01544	464	472	131
16	005	06477	50	03		TREAT LANE		01544	478	500	132
16	005	06477	50	03		TREAT LANE		01544	502	598	201
16	005	06477	50	03		TREAT LANE		01544	503	549	202
16	005	06477	50	03		TREAT LANE		01544	553	599	203
16	005	06477	50	02		TURKEY HILL RD		01552	400	430	125
16	005	06477	50	02		TURKEY HILL RD		01552	401	599	114
16	005	06477	50	02		TURKEY HILL RD		01552	432	598	125
16	005	06477	50	01		TWIN ACRE RD		01556	1	99	224
16	005	06477	50	01		TWIN ACRE RD		01556	2	98	224
16	005	06477	50	01		TYLER CITY RD		01560	1	99	303
16	005	06477	50	04		TYLER CITY RD		01560	2	36	204
16	005	06477	50	04		TYLER CITY RD		01560	38	100	203
16	005	06477	50	01		TYLER CITY RD		01560	101	199	304
16	005	06477	50	04		TYLER CITY RD		01560	102	210	202
16	005	06477	50	04		TYLER CITY RD		01560	201	209	310
16	005	06477	50	04		VALLEYBROOK RD		01568	300	398	214
16	005	06477	50	04		VALLEYBROOK RD		01568	301	399	201
16	005	06477	50	01		WALNUT HILL RD		01584	800	898	316
16	005	06477	50	01		WALNUT HILL RD		01584	801	815	318
16	005	06477	50	01		WALNUT HILL RD		01584	821	899	317
16	005	99999	50	03		WALNUT LA		93547	1	999	135
16	005	99999	50	03		WALNUT LA		93547	2	998	136
16	005	06477	50	04		WEDGEWOOD DR		01588	1	99	203
16	005	06477	50	04		WEDGEWOOD DR		01588	2	98	203

detection of errors. Using the DIME file for the City of New Haven it has been possible to produce a computer generated map and to display statistics on these maps using both the printer and plotter methods. The DIME system, in addition to its mapping capabilities, can be used to geo-code local addresses for the purpose of relating local information to census data. The Bureau of the Census plans to develop DIME files for other cities.

The final version of the DIME file for the City of New Haven was generated in October 1968, and because of the importance of this new development in terms of its use for other cities in 1970, the following technical description of the computer tape format is included.

New Haven DIME File Format
Street Segment File

Char.	Description
1-6	Record Sequence Number
7-24	Street Name (Incl: St. Type & Direction)
25-28	Node A (Low Address Intersection Number)
29-32	Node B (High Address Intersection Number)
33-36	Census Tract on Left Side of Street Segment
37-39	Census Block on Left Side of Street Segment
40-43	Census Tract on Right Side of Street Segment
44-46	Census Block on Right Side of Street Segment
47-50	Low Address of Address Range on Left Side of Street Segment
51-54	High Address of Address Range on Left Side of Street Segment
55	Address Range Code 1 = Odd Address Range 2 = Even Address Range 5 = No Addresses
56-59	Low Address of Address Range on Right Side of Street Segment
60-63	High Address of Address Range on Right Side of Street Segment
64	Address Range Code (same as for Char. 55)
65-69	X Coordinate for Node A (in Conn. State Plane Coordinates - 500,000 ft.)
70-74	Y Coordinate for Node A (in Conn. State Plane Coordinates - 100,000 ft.)
75-79	X Coordinate for Node B (in Conn. State Plane Coordinates - 500,000 ft.)
80-84	Y Coordinate for Node B (in Conn. State Plane Coordinates - 100,000 ft.)

The experimental efforts by staff of the Census Use Office in New Haven and cooperative local users have substantially advanced the understanding of technical problems in computerized address guides and their applications. However, the research is only a beginning. In particular, the inability to experiment with actual block face data has left untested one of the major objectives stated by the Bureau of the Census itself; it is doubtful whether the technical or administrative capability will exist in this area when the results of the 1970 census become available. The Bureau of the Census is well aware of the administrative and technical problems which were revealed during the life of the New Haven Census Use Office. The Bureau of the Census has commissioned a review of their experience by Booz Allen & Hamilton, a firm of management consultants. Personnel of the consulting firm have interviewed New Haven data users as a part of their study which will recommend ways of improving the capability and capacity of the Bureau of the Census to respond to the needs of local agencies.

CHAPTER VI

POTENTIALS FOR CENSUS DATA IN LAW ENFORCEMENT ADMINISTRATION

Relationship to Total Information System

Users of law enforcement data include, in addition to police agencies, social scientists, public administrators, the press, and the public. The recent explosion of interest in law enforcement and the political significance of the "law and order" issue have resulted in proposals for a total information system which would make effective use of the storage and retrieval capabilities of modern electronic data processing equipment. A total information system might be a large-scale set of inputs embracing all the aspects of community life. The experimental program based in New Haven and sponsored by the IBM Corporation sought to lay the base for such a system. However, a combination of different technical problems as well as the political vulnerability of a "data bank" now suggests that an ambitious program is not likely to be implemented. In the law enforcement field many major police agencies now have all of their "internal data" in machine readable form. Such state-wide systems as New York State Identification and Intelligence System (NYSIIS) are attempting to store internal data from many police agencies in one central retrieval system. At this point a NYSIIS-type system is likely to be limited to stolen property information, particularly automobiles, wanted persons, and criminal histories.

In January of 1967, the FBI began operating the National Crime

Information Center (NCIC). The NCIC is a computerized information system, national in scope, providing files on stolen vehicles, stolen guns, and wanted persons. The NCIC is accessable to law enforcement agencies equipped with terminals which are able to communicate directly and immediately with NCIC computers.

At this point in time, there appears to be no operable system in law enforcement agencies which provides access to a file of "external data" that is, information not generated by the activities of the law enforcement agency itself. To the extent that police administrators currently make decisions without an adequate data base, the importance of more data through an operational information system will be an advantage. Police administrators, however, seem to feel that their decisions tend to be reasonably effective on the basis of "internal data". In fact, some have stated that census-type information, because of its intermittant character and geographic conventions, cannot be of major assistance in their decision-making processes. Unfortunately, any significant test of the validity of this position was not possible because of the failure to generate block face information in the New Haven research. However, the limited types of data which were generated have provided a useful matrix into which the police data may be fitted.

Computer Lookup Program

Part II of this report provides a technical description of the computerized Lookup Program which was developed on an experimental basis in New Haven. Using a Census Bureau DIME file or other address coding system it is possible, by computer, to locate the block face on which a particular street address falls and to identify the nearest intersecting street. A number of police departments have, or are developing, capability of this type: examples are Chicago, Illinois and St. Louis, Missouri.

The New York City Police Department's Project SPRINT (Special Police Radio Inquiry Network) using two IBM System 360, Model 40 computers, will permit the identification of block number, precinct, nearest intersection, and nearest hospital as well as the numbers of three available patrol cars. Sylvania Electronics Systems has developed a system called "Beatfinder" which determines the patrol beat corresponding to the address. Such operating systems will have a short retrieval time. In the case of the New Haven project, more modest objectives were sought. Initially, the computerized lookup prodedure was one intended to permit the assigning of complaints to block faces, blocks and census tracts. When the identification of address ranges and intersecting streets is completed the system could be used operationally in the same way as Project SPRINT. The clerical work involved in the identification from maps of the lookup system inputs has been completed for 18 of the 28 tracts in the City of New Haven, but the lack of computer capability at this point has permitted only experimental use of the lookup program.

Tract 6 was used for demonstration purposes and the table on pages 68 to 71 shows the wealth of information available from the Census Pretest of 1967 for each block in the tract. This type of socio-economic information describes many of the characteristics of the area which have relevance to police administration. The map on page 72 shows the configuration of Tract 6. In Appendix II a portion of Tract 6 is shown for which the lookup program was tested. Typical printout from the computerized Lookup Program is shown on page 73. The first line, for example, with an address input of 315 Columbus Avenue retrieves the information that this address is in Tract 6, Block 301.

Socio-Economic Characteristics of Tract 6, by Block
New Haven City - 1967

Block	Total	Negro	Female	Age Distribution 0-14	15-17	18-24	25-34	35-44	45-54	55-64	65 & Over	Index of Family Instability
101	325	250	167	122	12	64	55	24	17	15	16	20.16
102	170	80	97	57	3	13	27	15	13	21	21	50.00
103	234	164	130	70	9	34	29	25	35	8	24	41.41
104	350	124	173	110	9	43	51	43	39	22	33	20.00
105	384	81	229	84	12	28	22	29	23	19	167	64.25
106	220	63	114	56	7	36	44	19	18	19	21	24.29
107	193	48	96	41	5	36	35	17	13	19	27	34.11
201	182	51	110	57	4	51	35	7	10	12	6	19.64
202	224	96	115	98	6	20	31	19	18	15	17	18.98
203	210	43	111	62	8	50	26	18	23	11	12	23.75
204	123	11	67	27	3	24	19	10	13	16	11	19.40
205	395	152	224	128	13	48	52	42	39	37	36	22.99
206	112	21	57	21	5	18	15	17	16	11	9	19.35
301	364	197	193	135	11	59	43	35	35	21	25	18.49
302	509	275	268	161	18	65	87	50	35	57	36	22.16
303	363	248	196	114	10	53	53	25	55	28	25	34.45
304	240	135	120	84	8	34	33	22	19	17	23	23.85
305	92	46	55	24	4	12	21	7	6	8	10	35.13
306	35	23	20	18	-	5	6	0	1	2	3	36.36
307	151	115	82	45	8	16	22	7	23	24	6	27.41
308	133	54	72	28	3	7	21	15	15	26	18	26.86
309	206	125	97	34	18	31	32	14	23	34	20	31.81
310	293	208	149	139	16	28	26	24	21	23	16	44.18
311	264	135	148	100	9	33	39	20	20	24	19	20.72
312	237	121	123	61	9	39	34	39	17	12	25	17.94

Socio-Economic Characteristics of Tract 6, by Block
New Haven City - 1967

Block	Total	Negro	Female	Age Distribution							65 & Over	Index of Family Instability
				0-14	15-17	18-24	25-34	35-44	45-54	55-64		
401	375	147	193	108	18	54	48	24	36	37	40	21.14
402	433	108	229	126	14	61	52	46	47	38	49	19.71
403	386	28	204	102	20	40	47	42	49	44	42	20.00
404	161	98	82	48	6	24	19	18	20	15	11	25.00
405	250	93	141	65	11	31	30	24	28	31	30	19.84
406	251	89	129	57	16	31	21	33	37	23	33	34.16
407	61	15	33	16	3	4	10	3	6	7	12	58.06
408	130	48	70	26	11	7	13	22	11	16	24	35.82
Total	8,056	3,495	4,294	2,424	309	1,099	1,098	755	791	713	867	27.67

Source: Special Census, New Haven City, Imager Tables, 1967.

CONTINUED

1 OF 4

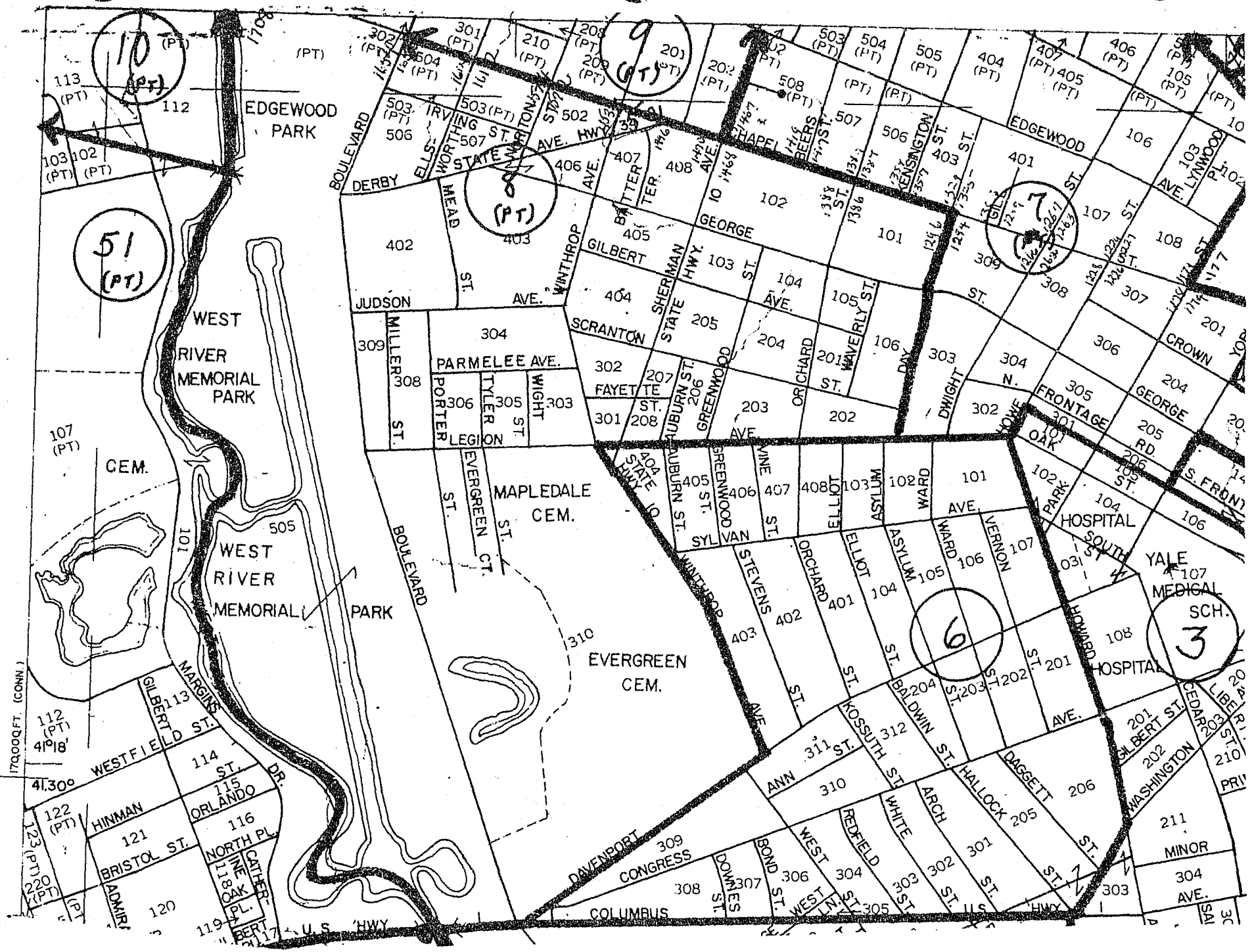
Socio-Economic Characteristics of Tract 6, by Block
New Haven City - 1967

Block	1 Person per Household (percent)	6 or more Persons per Household (percent)	Families with Female Head (percent)	Total Households	1 Unit Structure (percent)	Owner Occupied (percent)	Avg. Monthly Rental ($)	Avg. Value Owner Occ. ($000)	Persons in Crowded Household Units (percent)
101	22.9	12.4	33.8	112	2.7	4.5	89	12.5	34.5
102	15.7	17.6	34.2	55	3.6	25.5	95	17.5	36.4
103	24.4	11.5	35.6	83	7.2	7.2	77	-	30.8
104	21.4	7.7	20.9	132	3.0	26.5	78	14.2	21.4
105	17.1	20.0	24.6	74	-	13.5	84	-	36.0
106	28.9	2.2	19.3	95	1.1	16.8	92	-	12.3
107	32.9	4.9	22.0	92	7.6	14.1	89	32.5	11.9
201	18.0	8.0	25.7	53	7.5	1.9	72	17.5	22.6
202	20.6	20.6	21.3	69	4.3	18.8	90	27.5	38.4
203	26.5	11.8	15.0	78	3.8	14.1	87	6.3	26.7
204	17.4	2.2	12.5	50	12.0	22.0	78	16.3	4.9
205	20.0	8.1	20.8	140	10.0	17.9	85	12.5	24.1
206	34.7	8.2	10.3	55	3.6	3.6	75	-	11.6
301	14.2	14.2	23.5	127	12.6	18.1	80	14.4	30.2
302	16.9	13.6	25.2	166	7.2	12.0	75	16.9	33.2
303	22.7	9.2	28.4	127	3.1	11.0	83	14.4	29.8
304	25.9	9.9	14.3	90	10.0	21.1	84	12.3	35.4
305	18.8	6.3	41.7	32	18.8	12.5	82	6.9	23.9
306	30.0	30.0	28.6	11	27.3	9.1	65	11.3	62.9
307	11.6	16.3	27.8	50	14.0	12.0	79	12.9	3.8
308	29.5	15.9	16.1	45	31.1	48.9	85	14.3	39.1
309	18.0	18.0	22.4	64	10.9	10.9	76	-	31.1
310	19.8	22.2	42.9	93	3.2	10.8	86	13.8	49.1
311	20.2	10.7	21.9	100	18.0	18.0	75	11.9	29.9
312	27.0	9.0	21.5	114	1.8	8.8	81	11.3	21.9

Socio-Economic Characteristics of Tract 6, by Block
New Haven City - 1967

Block	1 Person per Household (percent)	6 or more Persons per Household (percent)	Families with Female Head (percent)	Total Households	1 Unit Structure (percent)	Owner Occupied (percent)	Avg. Monthly Rental ($)	Avg. Value Owner Occ. ($000)	Persons in Crowded Household Units (percent)
401	15.6	10.7	16.5	128	9.4	20.3	76	9.6	27.7
402	17.4	10.1	20.5	147	10.2	27.9	86	15.3	16.8
403	23.5	8.8	13.0	143	24.5	39.2	65	12.4	18.1
404	18.9	11.3	27.5	62	11.3	8.1	79	15.6	24.8
405	18.2	6.8	16.4	96	13.5	19.8	82	16.7	24.0
406	31.6	6.1	25.8	109	15.6	22.0	67	14.5	18.7
407	33.3	4.2	18.8	26	7.7	42.3	73	8.8	26.2
408	17.0	12.8	27.0	51	15.7	39.2	82	19.4	30.0
Total	21.6	10.9	23.1	2,869	9.2	18.1	81	14.1	27.3

Source: Special Census, New Haven City, Imager Tables, 1967.


EDGEWOOD PARK
WEST RIVER MEMORIAL PARK
CEM.
WEST RIVER MEMORIAL PARK
MAPLEDALE CEM.
EVERGREEN CEM.
HOSPITAL
YALE MEDICAL SCH.
HOSPITAL
BOULEVARD
DERBY
STATE AVE. HWY
JUDSON AVE.
PARMELEE AVE.
LEGION
GEORGE
GILBERT
SCRANTON
FAYETTE ST.
AUBURN ST.
GREENWOOD
ORCHARD
WAVERLY ST.
DWIGHT
FRONTAGE RD.
OAK
CROWN
GEORGE
S. FRONT
SYLVAN
STEVENS
ELLIOT
ASYLUM
WARD
VERNON
HOWARD
BALDWIN
KOSSUTH
ANN
HALLOCK
DAGGETT
WASHINGTON
MINOR
CEDAR
LIBERTY
WESTFIELD ST.
HINMAN
BRISTOL ST.
ORLANDO
NORTH PL.
CATHERINE
OAK PL.
DAVENPORT
CONGRESS
COLUMBUS
DOWNES
BOND ST.
WEST
REDFIELD
WHITE
ARCH
U.S. HWY
41°18'
41.30°
170,000 FT. (CONN.)

HOUSE NO.	STREET NAME	TRACT NO.	LOW INTERSECTING ST.	HIGH INTERSECTING ST.	FACING TRACT NO.
0315	COLUMBUS AVE	06301	HALLOCK ST	ARCH ST	05101
0367	COLUMBUS AVE	06302	ARCH ST	FRANK ST	06101
0399	COLUMBUS AVE	06303	WHITE ST	REDFIELD ST	05102
0477	COLUMBUS AVE	06303	NOT ON FILE	REDFIELD ST	05102
0417	CONGRESS AVE	06201	HOWARD AVE	VERNON ST	06206
0477	CONGRESS AVE	06202	VERNON ST	WARD ST	06206
0615	CONGRESS AVE	06312	BALDWIN ST	ARCH ST	06401
0617	CONGRESS ST	06312	NOT ON FILE	ARCH ST	06401
0401	CULUMBUS AVE	06312	NOT ON FILE	ARCH ST	06401
0101	DAVENPORT AVE	06107	HOWARD AVE	VERNON ST	06201
0151	DAVENPORT AVE	06105	WARD ST	ASYLUM ST	06203
0223	DAVENPORT AVE	06402	ORCHARD ST	KOSSUTH ST	06312
0259	DAVENPORT AVE	06403	STEVENS ST	WINTHROP AVE	06311
0201	ERIE ST	06403	NOT ON FILE	WINTHROP AVE	06311

In addition, Hallock Street is shown as the low intersecting street and Arch is shown as the high intersecting street. The facing tract is Tract 5 and the facing block is Block 101. The printout also shows four examples of incorrect input due to misspellings or incorrect house numbers. The printout indicates in these cases, "Not on File."

The map on page 75 identifies complaints made by street address during the month of November 1967, for Blocks 307 and 310 in Tract 6. An operational system would be able to allocate complaints to block faces and, in turn, relate the complaint information to the socio-economic characteristics of the block face.

Police Utilization of Data

In addition to the operating value of a computerized system such as described above, analytical purposes can be served, among which the forecasting of police services demanded is perhaps the most intriguing. Two approaches are possible: one approach is to formulate patterns of demand entirely on the basis of internal data which, in effect, projects police service experience. The report by R. Dean Smith, "Computer Applications in Police Manpower Distribution", was a pioneer effort in indicating potentials of computerized procedures for predicting the need for police service including the development of a weighting system. Essentially, this report extended the classic methods of O.W. Wilson in the development of a manpower allocation scheme for Wichita, Kansas. The St. Louis Police Department's "Allocation of Patrol Manpower Resources" (OLEA Grant #039) describes a more modern system. The information cycle in this system provides data on crime and on calls for service. The number of calls for service in a given area during a definite time period are predicted as well as the time required to service the calls. By setting an acceptable delay time the police administrator may determine his manpower deployment requirements.

Complaints During November 1967 in Tract 6, Blocks 307 and 310

TRACT #6, BLOCK 310

Street/ Avenue	Complaint Number	How Received	Date	Time	House Number	Race	Sex	Field Officer	Complaint Code	Time Dispatched	Time Arrival	Time Cleared
Ann	023986	Phone	11/21	2032	10	N	S	149	126	2133	2136	2149
Ann	021132	Phone	11/11	0653	36	W	F	162	049	0655	0657	0718
Ann	025261	Phone	11/26	1230	50	N	M	096	110	1239		1254
Ann	019732	Phone	11/05	0602	56	W	F	194	110	0603	0606	0624
Kossuth	019650	Phone	11/04	2146	24	W	F	489	108	2148	2148	2152
Kossuth	019477	Phone	11/04	1237	28	W	F	011	110	1238		
Kossuth	020671	Phone	11/09	0847	38	W	F	061	109	0849	0852	0936
West	020274	Phone	11/07	0812	43	N	F	011	124	0813		
West	025089	Phone	11/25	2144	99	N	M	149	038	2147	2151	2345
West	020230	Phone	11/07	0006	139	W	M	194	011	0012	0018	0027
West	019706	Phone	11/05	0103	149	W	F	140	084	0243	0249	0301
West	021332	Phone	11/11	1710	159	W	F	126	037	2113	2116	2207
Congress	021073	Phone	11/11	0003	West	N	F	194	038	0004	0007	0026

TRACT #6, BLOCK 307

Downes	018922	Phone	11/02	1433	19	W	M	061	064	1505	1509	1523
Congress	024433	Phone	11/23	1640	836	W	M	126	037	1644	1648	1714
Congress	024538	Phone	11/24	0422	840	N	M	162	108	0424	0427	0457

Source: Police Department, New Haven City, 1967.

The second approach is illustrated by the study prepared for the Philadelphia Police Department by the Franklin Institute Research Laboratories entitled, "Computer-Aided Crime Prediction in a Metropolitan Area", OLEA Grant 049. In this report, as described in Chapter I , a series of sociological factors were used to supplement the available crime-related factors. The final report for the project indicates that, "The results of the several analyses demonstrate the existence of differences in surrounding conditions for different crime types and give every indication that crime prediction, using a computer based model, can be achieved." Unfortunately, the sociological (neighborhood) conditions surrounding each crime were taken from 1960 census data and thus were seven years out-of-date at the time of the Philadelphia research. It is clearly important to extend these research efforts immediately after 1970 census data become available.

In connection with the New Haven research, a formulation of possible outputs was made accepting the constraints that the use of the data must be meaningful to the police as contrasted with mere academic research; that the use of the data were considered as part of an eventual management information system; and that computer mapping be one form of output display. For data outputs were envisioned: 1) forecast of demand for police services as measured by complaints classified by neighborhood, type of complaint, squad car responding, sex and race of complainant; 2) forecast of the arrests made by police in response to the demand for police service; 3) an assignment listing for foot and motorized beats; 4) the fourth output of the system was to be a test. The test component would compare the forecasted demand against actual experience in order to evaluate the forecasting method by means of a scoring system. This last aspect of the

research is critical because "intuitive" forecasting by experienced senior police commanders may be sufficiently precise so as to make the investment in a computerized system unjustified. There appears to be some evidence in this direction in the case of the Philadelphia experiment.

Techniques

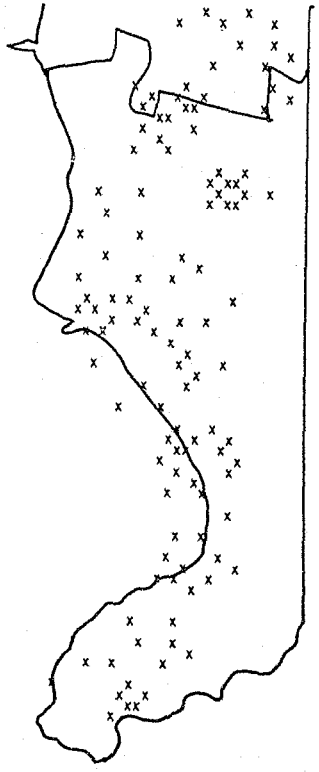
Given the weaknesses in the raw data, particularly in respect to complaint information, many on-going analytical systems appropriate for police use should use the simplest statistical techniques. The most sophisticated methods that appear appropriate are those of multiple correlation by means of which the various socio-economic factors may be assessed. There is a close correlation between many of the socio-economic characteristics which can be measured through census data. It is probably that continued research will permit the elimination of some of the variables on the ground that they contribute little as "explanatory variables". Stepwise regression, for which "canned programs" are available in most EDP systems, is a useful technique in evaluation of the comparative importance of variables. Multi-dimensional analysis was used in the Philadelphia study to analyze the model for burglaries. Multiple regression analysis results were not satisfactory as a predictive tool in the Philadelphia investigation. Unfortunately, there was no opportunity to test statistical techniques with the New Haven data. Any analytical system is dependent upon its data input and all the experiments recorded in the literature have not been able to assess the validity of the internal data on complaints. Auditing procedures such as those employed in St. Louis, Missouri, address themselves to honesty in recording all complaints rather than the much more difficult question of the relationship between complaints and the universe of crime.

In connection with the work of the National Crime Commission of 1966, the first intensive attempts were made to use surveys of samples of the general public for estimating the incidence of crime. Surveys in Washington, D.C. suggested that police statistics grossly underenumerated actual incidence of crime. Respondents in a national survey report being victimized by crime more than twice as frequently as would be expected on the basis of the Uniform Crime Reports "Crime Index". Much more research will be needed before any quantiative judgment can be made about the differential characteristics. of under-reporting between neighborhoods and population groups.

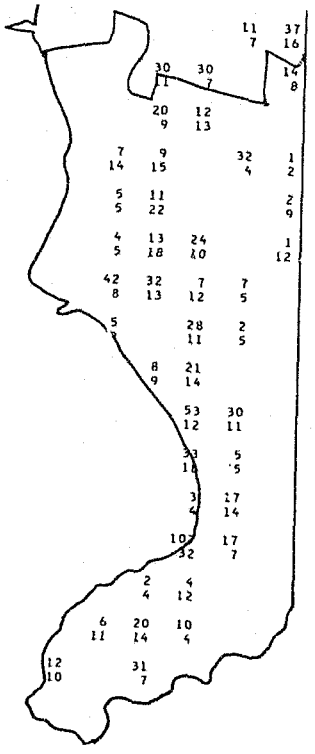
Computer Mapping

From the point of view of a police administrator, computer output displayed in the form of a map has considerable attraction. Technical capacity exists to produce maps displayed on a cathode ray tube or in hard copy format. One can realistically accept the dream of a real time system which will generate displays in the form of maps. Manual graphics produced by draftsmen are now rapidly being replaced by computer graphics. Four types of computer generated maps are shown on page 79, they are Density, Values, Conformal and Geospace plotter maps. The Conformal, or SYMAP is a continuing tool in the St. Louis Police Department. The SYMAP has a large number of statistical support factors which permit calculation of means, standard deviations, histograms, and percentile groups all within the same mapping package. On page 80, a Geospace plotter map generated by the New Haven Census Use Study is shown. This indicates the percent of non-white population. The plotter map simulates map drawing as done by draftsmen.

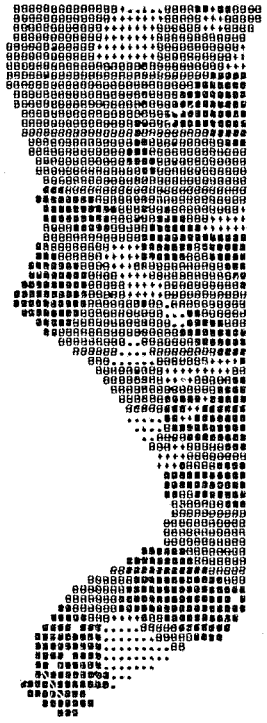
MAP KEY



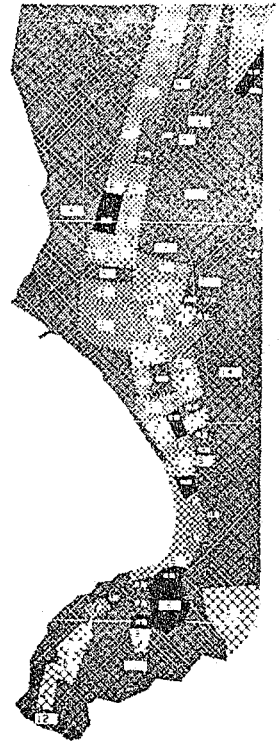
MAP01
Density



MAP01
Values



SYMAP
Conformal



GEOSPACE
PLOTTER

NEW HAVEN

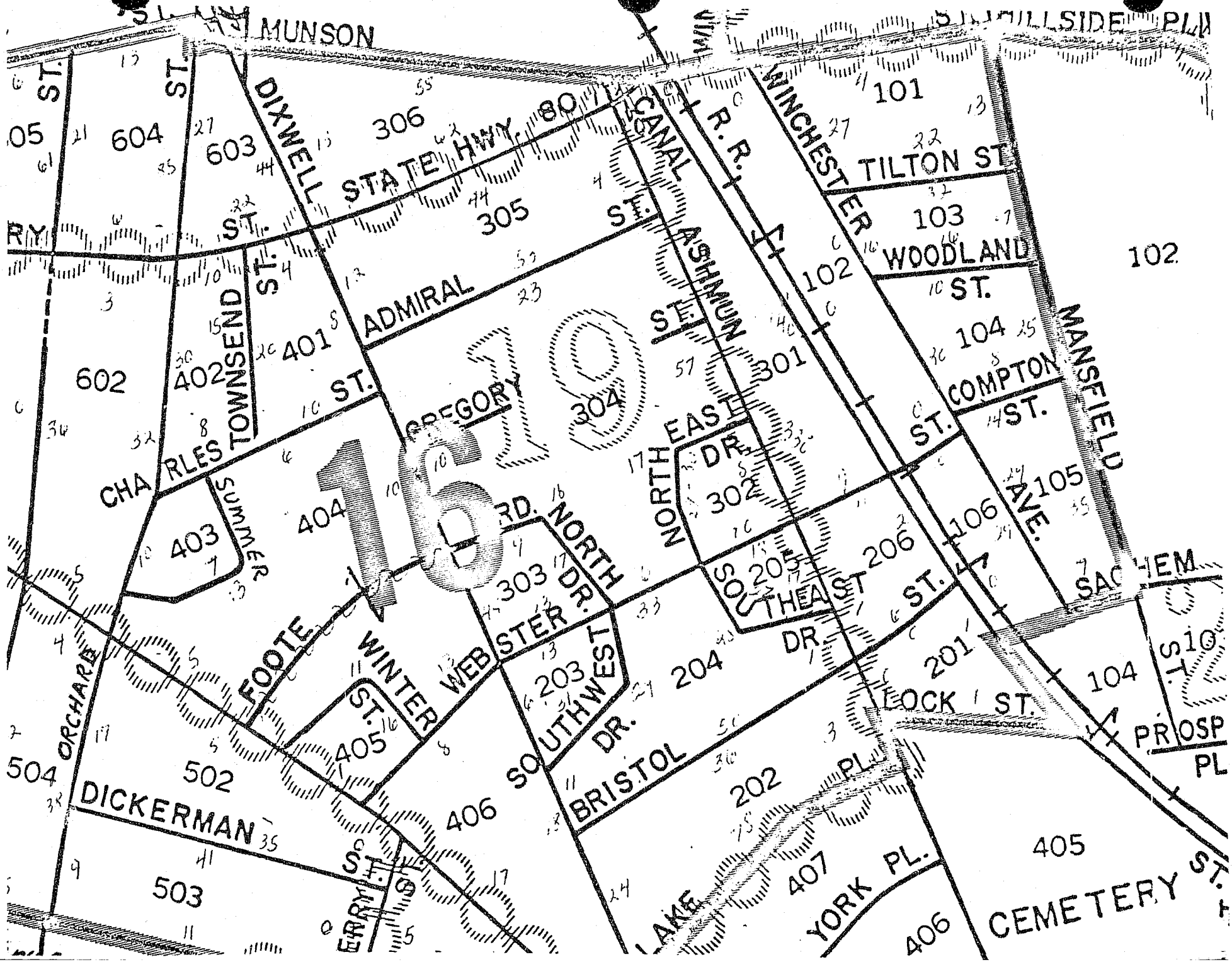
SHADED BY

PERCENT OF POPULATION NONWHITE

1970 Census Plans

As this report has made clear, the block face data capability of the New Haven Census Pretest could not be tested because no block face data were released. This development appears to have been a consequence of a decision in the Washington, D.C. Office in respect to confidentiality policies and technical difficulties. Under the legislative mandates given by the Congress to the Bureau of the Census, census data is "confidential".

In practice, the interpretation of confidentiality rules is quite different because it must represent a balance between confidentiality and usability. In general, as was the case for the 25% Summary tapes provided by the Bureau of the Census to this project, if a block contained fewer than 25 households all cells for that block were zeroed out. In the case of the 100% complete count data, a minimum of five households was regarded as necessary. When an effort is made to breakdown the information to the block face level the confidentiality rule becomes even more restrictive. The map on page 82 represents Tract 16 with block face data on the number of households. This map was an experimental effort by the Census Use Office. It will be noted that many of the block faces in this tract have less than the minimum number of households. Therefore, it would be necessary to aggregate block faces in order to make possible the printing-out of data on the characteristics of the households. The staff of this project proposed to the Bureau of the Census the following four statements in respect to aggregating block face data.


MUNSON
ST. HILLSIDE PL
DIXWELL
STATE HWY. 80
CANAL
R.R.
WINCHESTER
TILTON ST.
WOODLAND ST.
MANSFIELD
ADMIRAL
ASHMUN
ST.
TOWNSEND
ST.
CHARLES
GREGORY
NORTH EAST DR.
COMPTON ST.
AVE.
SUMMER
NORTH DR.
SOUTHEAST DR.
SACHEM
FOOTE
WINTER ST.
WEBSTER
SOUTHWEST DR.
LOCK ST.
PROSP PL
ORCHARD
DICKERMAN
BRISTOL
PL.
YORK PL.
LAKE
CEMETERY
ST.
16
19
101
102
103
104
105
106
201
202
203
204
205
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604

1. The Census Tract boundary is not to be crossed by any aggregation procedure. The only exception would occur because of the method of aggregation.

2. Both sides of the street are to be aggregated as a tabulation unit. As a result the aggregated unit consists of a street segment between two cross-streets, not T - intersections.

3. The tabulation begins at a full intersection and aggregation continues until at least 5 households, the number needed to override the rule on confidentiality for 100% data, are tabulated.

4. If the tally is insufficient when the street comes to an end or meets the census tract boundary, the aggregation is to be dropped; it is recognized that this data would be lost.

From the point of view of the police administrator an aggregation policy which would combine facing block faces along a street would be satisfactory. Unfortunately, the Bureau of the Census was not in a position to provide any experimental data to test out the proposed principles in respect to block face aggregates. Because of the importance of this failure in terms of the initial objectives of this report, the following statement from the Bureau of the Census is relevant:

The question concerning the possibility of obtaining block face tabulations for New Haven remains negative, there are no plans at present to tabulate the New Haven Special Census data by block face. Special block face tabulations could have been made available, official policy allows such release; however, we do not now have the necessary computer systems to make such tabulations.

The Census Use Study plans to begin research into the problems and technology needed to provide data at the block face level. Such research will probably begin in late 1969 and may be conducted in Los Angeles by the Southern California Regional Information Study (SCRIS), or become a project of the New Haven Census Use Study at about that same time. We anticipate that research into the problems of tabulating block face statistics will be concluded and documented in time for use with 1970 census data. Hopefully, we will develop from this research a workable system for extracting such tabulations from our basic record tapes.

Our present plan is to initiate our research with a study of the feasibility of producing such block face statistics on a street segment basis, i.e., data would be derived for a combination of sequential street segments (both sides of a street between intersections). The number of street segments in each series will be determined by confidentiality rules.

It has been indicated that the Summary tapes which will be made available to users subsequent to the 1970 census will not contain the block face data. Aspects of the usability of census data by law enforcement agencies were examined by law enforcement work groups which met with the staff of the Bureau of the Census on March 4-5, 1968. The report "National Needs for Criminal Justice Statistics" which gives the results of their deliberations was issued by the Bureau of the Census in August 1968.

PART II

COMPUTERIZED LOCATIONAL LOOK-UP PROCEDURES

Background

With the development of electronic data processing equipment (EDP) police administrators recognized the potential of EDP for efficient utilization of manpower. Some of the earliest applications of EDP were in terms of obtaining information on wanted persons, auto licenses, serial numbers and the like, more quickly and efficiently than with a manual search. EDP was also used in such statistical applications as the tabulation and analysis of crime reports, calls for service, personnel records and budgetary administration. In these applications speed of information retrieval was not as critical.

Since it is selfevident that police manpower, as a scarce commodity, should be allocated in space and time in such a manner as to correlate effectively with calls for service, the capability of EDP is attractive in this area. In theory, a "real time" system would permit immediate matching of available manpower with calls for service. There are two dimensions involved, one of time and the other of space. The time dimension involves such questions as appropriate work schedules such as the three or four platoon system, patterns of days off, sickness, special assignments, and other variables which determine the number of men actually available at any point in time to respond to calls for service. This aspect of manpower allocation was not considered in this research project.

As has been pointed out in Chapter III, the size and comparatively unsophisticated procedures in the New Haven Police Department meant that an elaborate evaluation of manpower management policies would not be of high priority. Until recently the basic statistical data were not available to the Chief of the Department.

In respect to the second dimension, that of space, it has long been evident to police administrators that the distribution of calls for service is uneven throughout the patrol area. This research project has been primarily focussed upon the spatial distribution of police activity. Even aside from the special aspects of the availability of block face data as discussed in Chapter I, police manpower allocation is necessarily related to block faces. Thus, in Chicago and St. Louis the police departments' geographic schemes to define areas have been developed and are operational. In Chicago the location code is based on the division of the city into four parts or quadrants. The location code is written on the radio call cards. Lists of diagonal streets are provided to officers in the patrol cards and also district maps can be used to look up the beat of occurrence which is also entered on the radio call card. In St. Louis geographic units called "Pauly" areas have been established. There are 480 of these small geographic areas each having a unique number. The average size of a Pauly area is from 9-12 city blocks. While the Pauly area system is primarily for data collection, it lent itself to incorporation into a computer file system. As the computer center developed in the St. Louis Police Department the "New Location Code" was developed. This system related the coded address to various geographic areas. The coding system, known as the Location Code, uses only numbers; each street is assigned a number so that the computer's system location for a typical street address consists of the house number, a slash, and a "Q" number of

the street. The Location Code for an intersection is made by writing the "Q" for one street and "X" to indicate an intersection and a "Q" for the other street.[1]

In New York City Project SPRINT (Special Police Radio Inquiry Network), when implemented, will determine block number, precinct, nearest intersection, and nearest hospital as well as the numbers of three available patrol cars for each call for assistance. SPRINT will use two IBM System 360 Model 40 to handle the workload.

New Haven Requirements

As a by-product of the introduction of a Central Complaint Desk in the New Haven Police Department and with the development by the Bureau of the Census of the DIME file, it seemed desirable to allocate some of the resources made available by this research grant to develop a computerized system for relating addresses of calls for service and nearest intersecting streets. While the New Haven Police Department has no present in-house computer capability, the management in the Department is committed to obtain such capability and to relate the Central Complaint Desk procedures to a "real time" system. In addition, the basic philosophy is that the computer system should also have been considered in this report. Since block face information availability was the inital premise of this report, the planning effort allocated to the computer system was predicated upon the block face as the smallest unit of aggregation. As a practical matter, from the point of view of police manpower allocation and statistical analyses, the block face is

[1] An extensive description of the St. Louis procedure is included in the report, "Allocation of Patrol Manpower Resources in the St. Louis Police Department", July, 1966, Volumes I and II.

a logical unit. Thus, as has been pointed out in the earlier discussions of Census Bureau policies, even if socio-economic data will not be available by block face the faces can be aggregated to create whole blocks. Thus, on the basis of all these considerations, a computerized system was structured which provides the capability of relating any street address to the block face on which it falls and relating the street address to the nearest intersecting street. As a by-product block and tract number are also identified. It is felt that this geographical identifier system will meet the requirements of both current operations as well as statistical analyses both for internal police data and external socio-economic data. At this point, of course, the New Haven Police Department does not have computer capability to make the system operational nor would research resources permit the preparation of completed in-put to the system.

Geographic Identifiers

As discussed in Chapter V, the Census Bureau DIME file was an experimental system developed by the Bureau after an attempt to use the Census Bureau's Address Coding Guide to create the geographic base file for mapping did not prove entirely satisfactory. The attempt to use geographic coordinates (latitude and longitude measurements) obtained on the basis of a digitizing procedure encountered a whole range of difficulties.[2]

[2] The kinds of geographic coordinate systems which may be used and apsects of digitizing are considered in the report, "Geo-Coding Techniques for Small Area Data", pp. 50, 1967.

From the point of view of police administration, there would appear to be no need for a coordinate system (latitude/longitude) since the natural description for an event is the street address and the nearest interesecting street. A simple system for the identification of block faces, suggested by Miss Dorothy A. Walsh, utilizes the number of the facing block. Thus, if Block 309 in Tract 6 faces Block 310 in Tract 8, the Walsh identifier is 06-309-08-310. On this basis each block face is uniquely identified. Special problems arise, of course, in connection with geographical features other than blocks: blocks facing more than one block, multiple block intersections, etc. However, the identification system can be adapted without abandoning the essentially simple concept. In addition, using the Walsh identifiers, it is easy to aggregate all the block faces (usually four in number) to make a complete block because the block number is incorporated into each block face identifier. Map II-1 which shows a part of Tract 6 illustrates the block face identification method.

In order to provide a Look-up procedure to go from street address to block face it is necessary to have a range of addresses from low address to high address for each block face. Since the original version of the Bureau of the Census' Address Coding Guide presented a large number of operational problems it was decided, for police department purposes, to generate manually a list of all block faces with low and high address range. This was done working from Sanborn Maps with field verification where difficulties were encountered. This procedure generated a listing showing street name, low address, high address, tract and block number, facing tract and block number. In certain cases there would be more than one facing tract and block number. The following is an example of the type of listing prepared in this process:

Code	Street	Low Add.	High Add.	Tract & Block	Facing Tract & Block	Intersecting Streets Low	Intersecting Streets High
9	Sylvan Ave	1	19	06101	06107	Howard Ave	Vernon St
9	Sylvan Ave	21	35	06101	06106	Vernon St	Ward St
9	Ward St	163	299	06101	06102	Sylvan Ave	Legion Ave
9	Legion Ave	20	72	06101	07303	Howard Ave	Ward St
9	Howard Ave	900	922	06101	03102	Sylvan Ave	Legion Ave

Input data for the following tracts have been completed: Tracts 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, and 27 (10 of the 28 tracts in the City of New Haven have not been completed). In determining the address ranges Sanborn Maps are essential. The Sanborn Map Company provides an up-dating service about once a year on the basis of field checks which include changes of house numbers and street names.[3]

From the input of block face data as illustrated above, a Street/Tract/Block Dictionary can be prepared and placed on computer tape or disk storage. Such a file can be up-dated and corrected quite easily.

[3] The Sanborn Map Company of Pelham, New York, has block maps of virtually every city in the United States. These maps may be purchased or rented and show certain characteristics of each building such as details of construction and use.

USERS' GUIDE TO LOOKUPAD PROGRAM

Since the approach to a computerized Lookup Program in New Haven may lend itself to the needs of other police departments, a detailed statement of the programs with flow charts is included. The descriptive material which follows includes a Users' Guide to the LOOKUPAD Program, the Street/Tract/Block Dictionary Up-Date Program, the Program Narrative and related flow charts. The technical guidance in connection with the development of this program was provided by the staff of Advanced Computer Techniques Corporation (ACT). Work on the program was directed by Miss Dorothy A. Walsh, Vice President of ACT, and Miss Phyllis Winslow, Mr. Michael J. Wichura and Miss Patricia Goglia served from time to time as programmers. The responsibility of ACT was limited to consulting assistance. The computer program has been run on an experimental basis for a part of Tract 6 and the results of this experiment were discussed in Chapter VI.

USERS' GUIDE TO LOOKUPAD PROGRAM

PREPARED FOR THE METROPOLITAN POLICE DEPARTMENT

THE CITY OF NEW HAVEN

A. Background and Development

1. Origin and Purpose

This program was prepared as part of a study carried out in New Haven, Connecticut to determine the usefulness of census data in police tasks. The orientation of the program is therefore toward census identifiers for tabulated socio-economic data. In particular, the census tracts as they are defined for New Haven serve as a means of grouping results.

Within the census tract statistics for population and other socio-economic variables are gathered on the basis of city blocks. Thus, city block identifiers are also associated with tabulated results.

An increasing awareness of specific needs for police service in areas having a particular socio-economic character lent interest to investigating the possibility of identifying and measuring relationships between recognizable characteristics and police activity. The possibility of predicting police needs, and more important, the possibility of anticipating and inhibiting the development of socio-economic characteristics recognized as undesirable, stimulated efforts to utilize in police service information gathered by the Bureau of the Census.

Certain police data may, for many purposes, be grouped into the census tract, (groups of blocks combined by the Bureau of the Census). For other purposes such coarse grouping is undesirable because it may tend to hide rather than reveal important relationships.

The main concern about such grouping of police data lies, however, in the fact that police data are normally received on an individual location basis -- dwelling, shop, etc. Most police departments have report forms which use street addresses.

It became of interest, therefore, to devise a means of translating the street address locators automatically into their census area equivalents.

To this end an identifying code for street addresses was designed to duplicate census data identifiers. A block number and census tract number are associated with the street address numbers on the face of a single block. All faces of a block must be considered in using census data.

In using police data it is often desirable to have a finer breakdown. Individual block faces are of interest. To provide this sort of breakdown for New Haven a block face identifier was developed - a combination of a block and tract number for the face on which a street address is found followed by the block and tract number of the opposite side of that street.

II. Design Environment

A set of programs was designed to effect the translation from street address form to block face form.

The programs are designed to provide the New Haven Police Department with an automatic means of directly relating its street address complaint data to the census data as well as to block faces.

The set of programs needed is intended to perform, generally, the following functions:

a. to prepare and maintain a dictionary of street address numbers and related block face identifiers for retention on tape or disk (this program was written in AUTOCODER);

b. to carry out a look-up in the Dictionary to match street addresses on complaint records;

c. to tabulate and report desired complaint information,

These factors inhibited to a degree the design and implementation of specific data processing applications within the time period allowed. The original intent was a set of programs to perform a number of inter-related functions. This intent has been only partially accomplished.

III. Implementation Environment

Implementation of the systems was carried out during the development of the census data it was intended to use. The period of preparation of the census data coincided with a period of change in the Police Department (see Chapter III) forms of reporting complaints in New Haven.

B. Description of the LOOKUPAD Program

I. Purpose

The purpose of the LOOKUPAD Program is to search in a dictionary of street address numbers and associated block and tract identifiers to find the identifiers for a given address and to print that information.

II. Operating Environment

LOOKUPAD is written in COBOL for the IBM 1401 computer. It uses: tapes, the card reader, the printer.

Hardware requirements: 12K 1401
two 7330 Magnetic Tape Units
Typewriter input (1407)
Printer 1403
Card Read Punch 1402
Console inquiry station 1407

Software requirements: COBOL Compiler Med.

III. Input

1. Input to LOOKUPAD is a standard New Haven Police complaint card (see Chapter III). The only fields used are:

Column	Contents
17-20	House number
21-37	Street name

2. A code card is required to indicate whether addresses are odd or even. This card contains an O (Odd) or an E (Even) in Column 1.

IV. Output

Output from LOOKUPAD is in two forms.

1. There is a card in the following form:

Column	Contents
1-4	House number
5-20	Street name
21-22	Not used
23-27	Tract number
28-34	Low intersecting street
35-41	High intersecting street
42-46	Facing tract number
47-80	Not used

2. A printed report is produced in the following format:

House No.	Street Name	Tract #	Low Intersecting St.	High Intersecting St.	Facing Tract #
0315	Columbus Ave	06301	Hallock St	Arch St	05101
0367	Columbus Ave	06302	Arch St	Frank St	06101
0399	Columbus Ave	06303	White St	Redfield St	05102
0477	Columbus Ave	06303	Not on file	Redfield St	05102
0417	Congress Ave	06201	Howard Ave	Vernon St	06206

V. Procedure for Use

To use LOOKUPAD the Dictionary must be on tape and data cards prepared as described above. Data cards, sorted alphabetically on street name follow the code card and program cards in the card reader. Cards are punched and the report printed.

The program must be run once for even, once for odd addresses.

C. Discussion and Recommendations

I. LOOKUPAD Revisions

Characteristics of LOOKUPAD are not optimum. Use of tape for the Dictionary is not satisfactory because computer tape is treated sequentially. The addresses looked up might begin, for example, at M thus requiring the reading of all preceding street information. Sorting could be eliminated by the use of disk storage which would provide random access capability.

A change to allow odd and even lookup is also desirable.

II. Programs Related to LOOKUPAD

The proposed complete set of programs should be implemented to take advantage of LOOKUPAD. Specifically, programs should be prepared to:

a. set up complaint record information based on census locators;

b. add desired census data to cards with the identifiers in the Dictionary;

c. prepare a new complaint record containing the original police data and the new locator information.

III. Extensions of the System to Other Cities

The general concepts embodied in the programs designed for the City of New Haven are intended to provide a statistical framework for current police data. Complaint information is to be coded on a current basis and related to pertinent socio-economic factors.

The techniques of location of complaint site, in particular the ability to extrapolate block face identifiers to street intersection identifiers, have further implications for police management. Dispatching police manpower would be facilitated by the use of locator codes, particularized to the intersection level. Under special operating conditions the codes could be used as a confidential dispatching method.

STREET/TRACT BLOCK DICTIONARY UPDATE PROGRAM

1. Street/Tract - Block Dictionary - General Description

The Street/Tract - Block Dictionary is a tape file containing information on the streets of New Haven. For a given street, there is included in the Dictionary, first, a description of the intersections along the street, and second, descriptions of the segments between these intersections.

An intersection is described by means of an "I Record", which is made up of:

1. the code letter "I" (standing for Intersection);
2. the name of the main street;
3. a sequence number, which gives the relative order of the intersection in the direction of increasing house numbers along the main street;
4. a two-digit intersection code. The first (respectively second) digit is the number of intersecting streets at the intersection on the odd (respectively even) numbered side of the main street;
5. the names of the intersecting streets at the intersection.

A segment of the main street between two intersections is described by either an "O" record or an "E" record, depending on whether the odd or even numbered side of the street is being described. O/E records are made up of:

1. the code letter O for an "O Record", E for an "E Record";
2. the name of the main street;
3. the sequence numbers of the intersections at the low and high (in the sense of increasing house numbers) ends of the segment;
4. the names of the intersecting streets at the low and high ends of the segment. If there are two intersecting streets at one end of the segment, the name of the closer street is needed. If there are no streets at one end of the segment the name of the (closer) intersecting street at the same end of the segment directly across the main street is used;
5. the numbers of the tract and block of which the segment is a part;
6. the numbers of the tract and block of which the segment directly across the main street is a part;
7. the low and high house numbers on the segment, if any;
8. a characterization of the low and high locations on the segment.

If no house numbers (item 7) are given, this information must be present; otherwise it may be omitted.

For a given main street I records are stored sequentially according to sequence numbers of the corresponding intersections, and are followed immediately by pairs of O and E records which are stored sequentially according to the corresponding pairs of sequence numbers of their low and high intersections. The main streets themselves are stored in alphabetical order.

2. The Update Program - General Description

The Street/Tract - Block Dictionary Update Program is used to insert new records into and/or to modify or delete records from the Dictionary. Updating is governed by control cards similar to the I, D, and E records of the Dictionary. The Update Program produces a revised Dictionary (on tape) and a printed record showing the update cards and the Dictionary entries for streets for which changes have been made.

The Update Program makes numerous checks on the information it processes. Entries on the update cards are scrutinized for errors. Update cards found to contain mistakes are rejected and not used in the Dictionary. Several checks are made on the totality of O/E records for a given street, including a check for missing entries. All errors detected by the update program are noted in the printed output.

3. Update Card Formats

A. I Cards

"I" cards are used to enter, modify, or delete information about an intersection along a main street. The format of an I card is as follows:

Column	1	I
Columns	2-17	main street name
Columns	18-20	sequence number
Columns	21-22	intersection type
Column	23	control card action (I, M, or D)
Column	24	blank
Columns	25-80	intersecting street names

The "sequence number" does not have to be purely numeric; each digit can be any of the 64 characters read by the 1401. Sequence numbers are ordered using the ordering of characters built into the 1401 (the so-called collating sequence). In particular, 01 blank before 01A which, in turn, comes before 01Z which, in turn, comes before 010.

Column 21 is the number of intersecting streets at the intersection on the odd numbered side of the main street; Column 22 is the number of intersecting streets at the intersection on the even numbered side of the street. Each of these numbers must be either 0, 1, or 2. In the rare instance when there are more than two intersecting streets on one side of the main street at the intersection, only the first and last should be read. The intersection type may not be 00.

Columns 25-80 provide space for variable-length fields for the names of four intersecting streets at the intersection. In order, these streets are:

a. the first intersecting street, if any, on the odd numbered side of the main street;
b. the last intersecting street on the odd numbered side of the street, if there is more than one such street;
c. the first intersecting street, if any, on the even numbered side of the main street;
d. the last intersecting street on the even numbered side of the street, if there is more than one such street.

The names of these streets must be separated by commas, and the fourth name must be followed by a period. No other periods may be used. No field may begin with a leading blank, and no field may be longer than 16 characters. If a field does not apply (for instance, if there is only one intersecting street at the intersection on the odd-numbered side of the street), then it, but not the surrounding commas and/or period, is omitted.

B. O/E Cards

O and E cards are used to enter or modify information on a segment of a main street between two consecutive intersections. The format for an O/E card is as follows:

Column	1	O or E
Columns	2-17	main street name
Columns	18-33	low intersecting street
Columns	34-49	high intersecting street
Columns	50-51	tract number
Columns	52-54	block number
Columns	55-56	facing tract number
Columns	57-59	facing block number
Columns	60-63	low address
Columns	64-67	high address
Columns	68-70	low location
Columns	71-73	high location
Columns	74-80	not used

Column 1 contains an O (respectively E) if the card is used to describe the odd (respectively even) numbered side of the main street.

Throughout, "low" and "high" are to be interpreted in the sense of increasing house numbers. The low intersecting street (LIST) is determined as follows: if there is just one intersecting street at the low end of the segment, it is the LIST; if there are two or more intersecting streets at the low end of the segment, the last one is the LIST; if there are no intersecting streets at the low end of the segment, the LIST is the last intersecting street at the low end of the segment directly across the main street.

The high intersecting street (HIST) is determined as follows: if there is just one intersecting street at the high end of the segment, it is the HIST; if there are two or more intersecting streets at the high end of the segment, the first is the HIST; if there are no intersecting streets at the high end of the segment, the HIST is the first intersecting street at the high end of the segment directly across the main street.

The same name may not be used for intersecting streets at different intersections along the same main street. Even if two intersecting streets at different intersections have, in fact, the same name, a distribution between them must be made so far as the Dictionary is concerned. The tract and block are the tract and block of which the segment is a part. The facing tract and block are the tract and block of which the segment directly across the main street is a part.

The low (respectively high) address is the lowest (respectively highest) house number on the segment. If there are no house numbers at all on the segment, the low and high addresses are omitted; otherwise both must be present. Leading zeros, if needed, must be supplied to make each address 4 digits in length.

The low and high locations, if used, must be one of the following symbols:

Symbol	Meaning
PK	Park
TPK	Turnpike
PKG	Parking
RIV	River
AIR	Airport
CL	
VIA	Viaduct
RR	Railroad
EL	
NFH	
CEM	Cemetery
HAR	Harbor

Low and high locations must be used if no addresses are given; otherwise these fields are optional.

4. Uses of Update Cards

A. To Insert a Street in the Dictionary

An I card must be given for each intersection. These cards contain an I (for Insert) in Column 23, and they must be ordered by their sequence numbers (Columns 18-20). After all the I cards for the street, O and E cards for the various segments of the street between the intersections specified by the I cards may be given. These O/E cards may be in any order. It is possible to give only I cards or only O/E cards -- in the first case, the printed summary of the update will indicate that information is missing in all the O/E records in the Dictionary for the street; in the second case, the O/E cards will be checked for possible errors, but will not be incorporated into the Dictionary.

B. To Modify an Intersection on a Street in the Dictionary

An I card must be given which has the same main street name and sequence number as the I record in the Dictionary. Column 23 must contain an M (for Modify). The information in the other fields replaces the other information in the I record in the Dictionary.

C. To Delete an Intersection on a Street in the Dictionary

An I card must be given which has the same main street name and sequence number as the intersection in the Dictionary. Column 23 must contain a D (for Delete). The remaining fields are not required.

D. To Insert an Intersection on a Street in the Dictionary

An I card must be given which has the appropriate main street name. Column 23 must contain an I (for Insert). The sequence number of the intersection must lie between the (Dictionary) sequence numbers of the intersections between which the intersection is to be inserted (since the last character of a Dictionary sequence number is always a blank, as many as 63 intersections could be inserted between two consecutive intersections in the Dictionary). If the intersection is to be inserted before the first intersection in the Dictionary, the I card must have a sequence number less than 01 blank. If the intersection is to be inserted after the last intersection in the Dictionary, the I card must have a sequence number greater than that of the last I record in the Dictionary.

E. To Insert an O/E record on a Street in the Dictionary

An O/E card with the appropriate main street name, together with the other fields, must be given.

F. To Modify an O/E Record on a Street in the Dictionary

An appropriate O/E card must be given. The information on this card replaces the information in the corresponding record.

G. To Delete All Information on a Street in the Dictionary

All (or all but one) of the intersections (I records) along the street must be deleted using I cards with a D in Column 23 (see C).

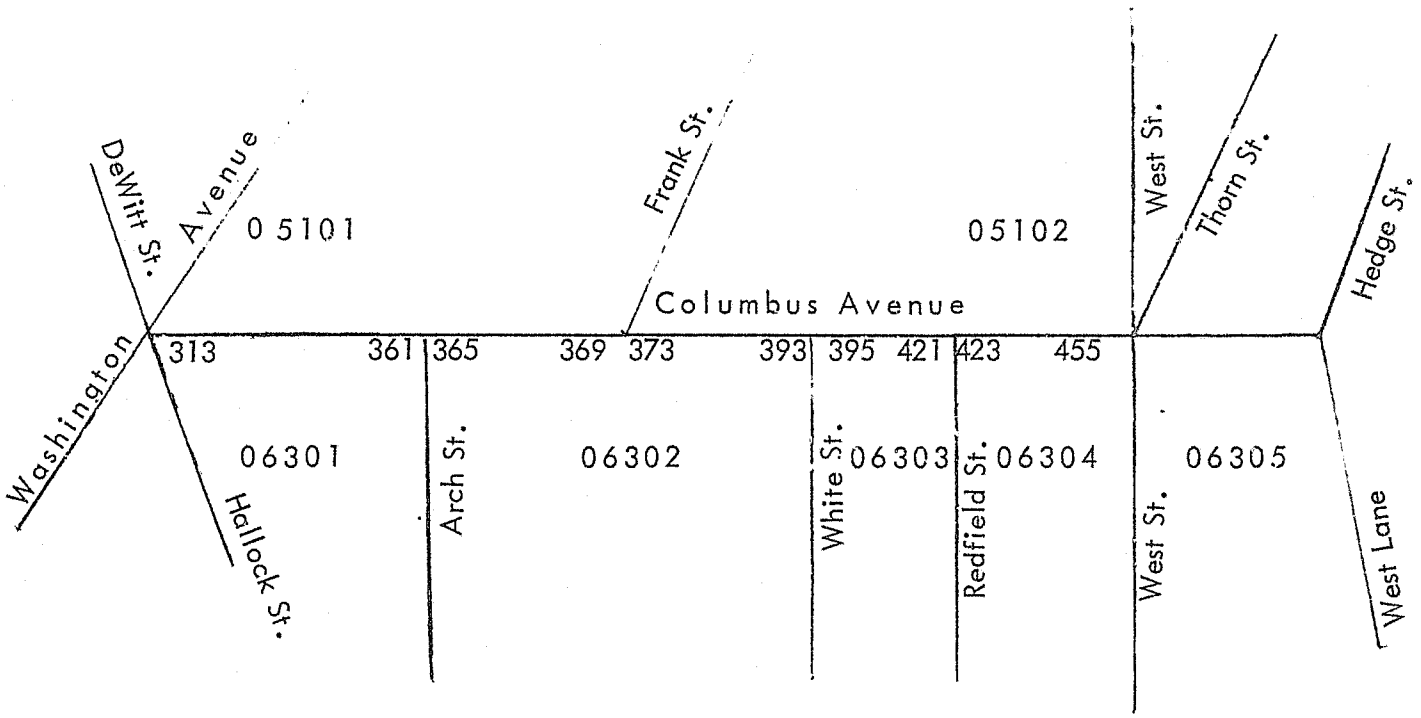
H. To Get the Records in the Dictionary on a Street

There is no special provision for this. However, giving a single update card with an error on it causes the update program to reject the card and list the dictonary records for the corresponding street together with error messages. For example, one can give an I card with only Columns 1-17 filled in. A listing of the records on a street, together with error messages, will at any rate, be available from the previous update action on the street.

6. Examples

Figure 1 depicts part of Columbus Avenue. The intersecting streets are labelled as are the tract/block numbers of the various segments. High and low house numbers are indicated.

Figure 1



(a) This part of Columbus Avenue could be inserted into the Dictionary by using the following update cards:

O	Columbus Ave	Arch St	Frank St	063020510103650369
E	Columbus Ave	Arch St	Frank St	0510106302
O	Columbus Ave	Frank St	White St	063020510203730393
E	Columbus Ave	Frank St	White St	0510206302
O	Columbus Ave	White St	Redfield St	063030510203950421
E	Columbus Ave	White St	Redfield St	0510206303

(b) Suppose that on the fourth I card, White St were mispunched as Wiite St and that this (mistaken) entry was made in the Dictionary. This situation could be rectified during a subsequent update run by giving the following update card:

```
I Columbus Ave          04 10M White St,,,.
```

together with the four O/E cards with White St as an intersecting street (these cards would have been rejected during the original update run, since at that time White St would not have been recognized by the update program as an intersecting street name).

(c) Suppose that at some future date, Redfield St were removed and a large building complex were put up on the combined block. This change could be accounted for insofar as it affects Columbus Ave by giving the following I card:

```
I Columbus Ave          05 D
```

together with an O and an E card between White St and West St. Note that the old O/E records between White St and Redfield St and between Redfield St and West St would automatically be removed by the update program.

(d) Suppose that it were discovered that the high address between Hallock St and Arch St were actually 353 instead of 361. Then this item would be corrected by giving the following update card:

```
O Columbus Ave          Hallock St.  Arch St  0630105101031303 53
```

7. Making an Update Run

Update action can (and should) be carried out on several streets during a single update run. Needed for an update run are:

1. the update program (object deck);
2. the update control cards;
3. a card with Z's in Columns 1 through 80 (Z in 2 through 17 will do);
4. the previous street/tract block-dictionary;
5. a blank tape to contain the reviewed Street/Tract Block-Dictionary.

The order of the update cards is important. If a street is being inserted in the Dictionary, the cards for that street must be in the order specified in 4. A. If a street already in the Dictionary is to be altered during the update run, the update cards for that street must be given in the following order: first, all I cards (whether they have I, M, or D actions) ordered by their sequence numbers; second, all O/E cards (for which the order is irrelevant). The update cards for the various streets must be ordered alphabetically by the name of the main street.

The update program, followed by the update cards, followed by the Z's card, should be placed in read hopper and loaded. Immediately after loading, the update program types the message:

> "Mount tape bearing old Dictionary on Drive 2, tape for updated Dictionary on Drive 1, check that last update card is all Z's, then press START"

on console typewriter and pauses. The tapes may be mounted at this time (or earlier). Once started, the update program processes the update cards, producing a revised Dictionary on tape Drive 1 and a printout of the results of the update run. After (and only after) reading the Z's card, the update program terminates, rewinds (but does not unload) the tapes and types the following message on the console typewriter.

> "Update completed. New Dictionary is on Drive 1."

The program is, at this point, in a temporary halt. Pressing START causes the program to begin again (so that it is possible to follow one update run immediately by another simply by switching the tape drives). Once the tapes are unloaded, the user must label them by hand; the update program does not write or process any tape labels.

Before the update program is run for the first time, an initial Dictionary tape (containing no streets) must be created having the proper block size and terminating characters (9's). An auxiliary program to prepare such a tape has been written.

8. The Update Monitor

The update program produces a printed record of the revisions made in the Dictionary during the course of an update run. If no alterations are made on a street, all the records on the street are transferred to the new Dictionary and the printout contains the message:

> "****street name included as is".

If alterations are made on a street, the update monitor prints out the heading:

> "****street name",

followed by:

1. the heading "update cards";
2. the update records and either
3. the heading "dictionary entries for street name"
4. or the dictionary records for the street;
5. or the message, "no entries made for street name".

If at least two acceptable I records are obtained, either from tape or from cards, entries are made for the street in the new Dictionary and (3) and (4) appear in the output; otherwise no entries are made for the street and (5) appears in the output. Errors detected by the update program are noted in the righthand margin of the printout.

Update cards are printed in an expanded format to make them easier to read. For I cards, four fixed width fields, separated by blanks, are used to display the names of the intersecting streets at the intersection. For O/E cards, the various fields are separated by one or more blanks.

Dictionary I records are printed on the same format used to print I cards, except that the action field (Column 23 on I cards) is blank. The sequence number of an I record is a three character field, the third character of which is a blank. Dictionary O/E records are printed in the same format used to print O/E cards, except that between the names of the main street and the low intersecting street there are included the sequence numbers of the low and high intersections on the segment, separated by a hyphen; since the last character of Dictionary sequence numbers is a blank, only the first two characters of the sequence number are used.

9. Error Messages

When an error is detected on an update card or in a Dictionary record, the update program makes note of this error in the righthand margin of the corresponding line of the printout. The error messages and their significance are as follows:

EO1 Column 23 is not an allowable action character - I, M, or D. The card is rejected after checking for EO8 and EO9.

EO2 This card has the wrong number of commas (should be 3) separating the names of the intersecting streets. The card is rejected after checking for EO8 and EO9.

EO3 The leading character of the name of some intersecting street is a blank. The card is rejected after checking for EO8 and EO9.

EO4 Some intersecting street names exceed 16 characters. The card is rejected after checking for EO8 and EO9.

EO5 The only intersecting street on the odd numbered side of the street at the intersection is given in the second rather than the first street name field. The card is rejected after checking for EO6, EO7, EO8 and EO9.

EO6 The only intersecting street at the intersection on the even numbered side of the main street is given in the fourth rather than the third street name field. The card is rejected after checking for EO7, EO8, and EO9.

E07 The numbers of intersecting streets at the intersection on the odd and even numbered side of the main street do not agree with the specified intersection type. The card is rejected after checking for E08 and E09.

E08 The sequence number of the I card does not exceed that of the previous error-free I card for the same street. The card is rejected after checking for E09.

E09 At least one O or E card for the same street has preceded this I card. The card is rejected immediately.

E10 The sequence number of this I card coincides with the sequence number of an I record in the Dictionary for the street, but the action field (column 23) is not M or D. The card is immediately rejected and the tape record is transferred to the output tape.

E11 The sequence number of this I card does not coincide with the sequence number of any I record in the Dictionary for the same (main) street, but the action field (column 23) is not an I. The card is rejected immediately.

All O/E cards are checked for errors E20 through E44, where appropriate. Cards with errors are rejected.

E20 The tract-block/facing street block field is not purely numeric.

E21 The low address field is not blank but is not purely numeric.

E22 The low address is not of the correct parity (odd for an O card, even for an E card).

E23 A low address is given but the high address field is not purely numeric.

E24 The high address is not of the correct parity (odd for an O card, even for an E card).

E25 The high address does not exceed or equal the low address.

E26 No low address is given, but the high address field is not blank.

E27 No low address is given, but the high location field is blank.

E28 No low address is given, but the low location field is blank.

E29 The high location field is not a valid symbol.

E30 The low location field is not a valid symbol.

E41 Fewer than two I records were developed for the main street. The card is rejected immediately.

E42 The name of the low intersecting street does not appear among the names of the intersecting streets in the I records.

E43 The name of the high intersecting street does not appear among the names of the intersecting streets in the I records.

E44 The low/high intersecting street pairs for this O/E card does not correspond to any of those developed from the I records for the street (this error will arise whenever intersecting streets at different intersections along the main street have the same name).

E50 The tract-block/facing tract-block and low, high addresses and/or low, high location fields are missing from this O/E record. No further checks are made on the record.

E51 There is no intersecting street actually present at the low end of this segment but there is a change in the tract-block field from the previous record with the same parity. The record is checked for E53 and, if an E record, for E54.

E52 An intersecting street is actually present at the low end of this segment, but there is no change in the tract-block field from the previous record with the same parity. The record is checked for E53, and if an E record, for E54.

E53 The low street number on this segment does not exceed the high street number of the previous segment with street numbers on the same side of the main street.

E54 The tract-block/facing tract-block field of this record and that of the preceding O record are not consistent.

E60 The main street name of this update card precedes the main street name of update cards already processed. The card is rejected immediately and printed as is.

E61 The first column of this update card does not contain an I, O, or E. The card is rejected immediately and printed as is.

10. Format of the Dictionary Tape

All records on the Dictionary are 95 characters in length. The first 94 characters are identical to the first 94 characters in the printout of the record (the code letter is the first character). The 95th character is a record mark. The records are blocked four to a block.

Main streets are included in the Dictionary in alphabetical order. For each street, I records come first, ordered by sequence number, and are followed by pairs of O and E records, ordered by the sequence numbers of their low and high intersections. The arrangement of I, O, and E records is exactly that of these records on the printout. The I records of a street follow immediately the O/E records of the preceding street.

The last significant (as opposed to padded) record in the Dictionary has 9's in the street name field (characters 2 through 17). This record is used to signal the end of street records on the Dictionary tape

Tapes are handled by standard IOCS routines. No labels are used, nor are any of the tape error options available in the DTF macro.

PROGRAM NARRATIVE

Purpose

The purpose of this program is to find the tract and block number that correspond to a given address and to print that information in a report and punch it on a card. The inputs are the house number and street name information on the Complaint code cards and the Master Dictionary File on tape. The outputs are a printed report and punched cards.

Initial Procedure

This program (LOOKUPAD) was written in COBOL and run on an IBM 1401 computer. With this model computer the original program deck is compiled and an object deck is punched out. When the program is executed it is the object deck that is run followed by the data cards. The data cards, prior to the execution of this program, are sorted by house number with street name. That is, the street names in alphabetical order and within each street name group, the house numbers are sequential -- lowest number first. The last card in the deck of data cards should contain all Z's. This is a trailer card and will indicate the end of the data card file.

The first card is a code card and should be an O or an E. In order to get a complete lookup of addresses the program has to be run twice. Once with an O code card, then with an E or vice versa. The reason for this is explained in the Suggested Improvements paragraph.

To start a run, the object deck followed by an O or E card, the data deck, and a trailer card is loaded in the card reader and the Dictionary tape is mounted on Tape Drive 1. The printer and the card puncher should be turned on so the output can be written.

Main Procedure

The data cards are read and the program tries to find a record in the tape with the same street name by reading the tape sequentially until a match occurs. Once there is a match on street name then the program checks to see if the house number on the cards falls within the range of addresses for that block. The record in the Dictionary also has a code of O and E. It is important that the data cards not only match on street name and fall within the address range, but that the code applies to the house number. That is, if the house number is odd, an O record only should lead to the ultimate match. To illustrate the errors that would occur if this were not provided, assume for a given street name on the Dictionary the records were:

Code	Street Name	Address	Range	Tract #	Block #
O	George St	01	09	06	101
E	George St	02	10	06	102

and the data card had the address: 6 George Street. The program would accept Tract 06, Block 101, since street name matches and 6 is within the 01-09 range. To prevent this, each data card is checked with a routine that determines if the house number is odd or even and the O or E, respectively, is put in a storage area (H code).

Final Procedure

When the trailer card of Z's is read all files are closed and the run is stopped.

Error Procedure

If the address on the data card cannot be found in the Dictionary an error message is written in the printed report. The house number and street name on the data card is written under the appropriate columns in the report. Under the column entitled, "Low Intersecting Street", the message, "Not on File" is written. The rest of the line is blank.

Since the present Dictionary format cannot give nearest block numbers or tract number when the house number is blank the lookup program bypasses any cards whose house number is blank.

Program Listing

The complete field description of the complaint code data card is listed in back. For the program as now written, the only fields needed are the following:

Column	Contents
17-20	House number
21-37	Street name

The format of the punched card output has been indicated in the Users' Guide.

The format of the printed report is selfevident since each column is headed with the title of its contents.

The format of the Dictionary is:

Column	Contents
1	Code
2-17	Main street
25-41	Low intersecting street
43-59	High intersecting street
61-65	Tract number
67-71	Facing tract number
73-76	Low address
78-81	High address

Suggested Improvements

Under the present system the Lookup program must be run twice to get the desired information. This is because the Dictionary is on tape and therefore must be read sequentially. (This is, incidentally, very time consuming, thereby costing more in machine time, console operator fee and delay time. Since the file is in alphabetic order by street name, if the first street name on the data card was Post Street, every record on the Dictionary prior to Post Street would have to be read before reading Post Street.)

To illustrate why Lookup must be run twice, assume the following is a section of the Dictionary:

	Code	Street Name	Low Address	High Address
(1)	O	Crown St	01	11
(2)	E	Crown St	02	08
(3)	O	Crown St	13	25
(4)	E	Crown St	10	16
(5)	O	Crown St	27	33
(6)	E	Crown St	18	36

and that the address on the data cards will be read in as follows:

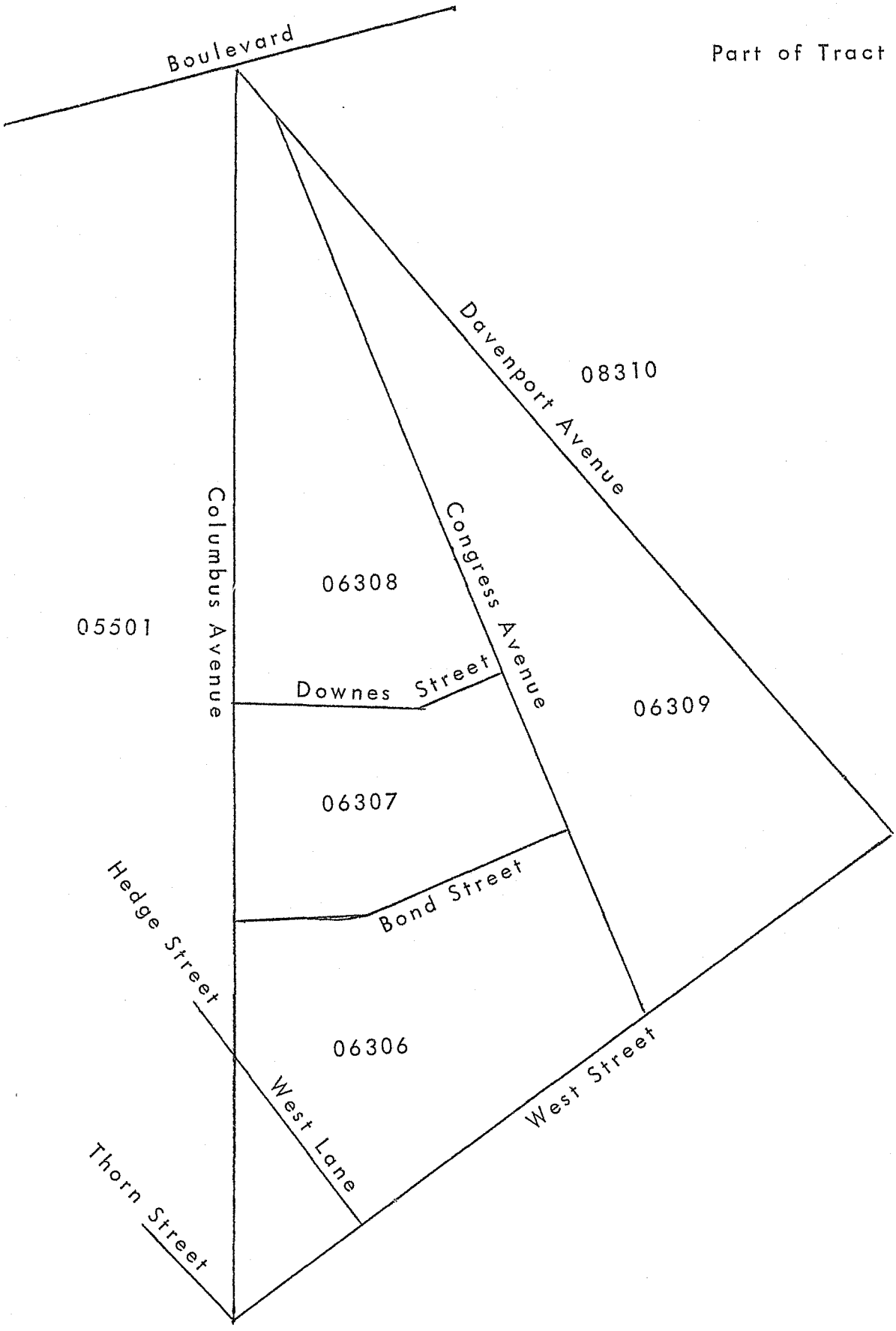
(1) 6 Crown St
(2) 9 Crown St
(3) 12 Crown St
(4) 18 Crown St
(5) 21 Crown St

The tape is read until the street names match. Data card 1 is even so it must match an E record and fall in the address range. Record 1 is read and by passed. Record 2 is the proper match and information is retrieved. Data card 2 is odd, so record 2 is bypassed and record 3 is read. However, the address range is too high. The correct match is in record 1, but that record was already read and bypassed. It cannot be accessed again in this run. Even if odd and even records were linked together and accessed jointly, the problem would not be solved. Further processing of the example will illustrate this.

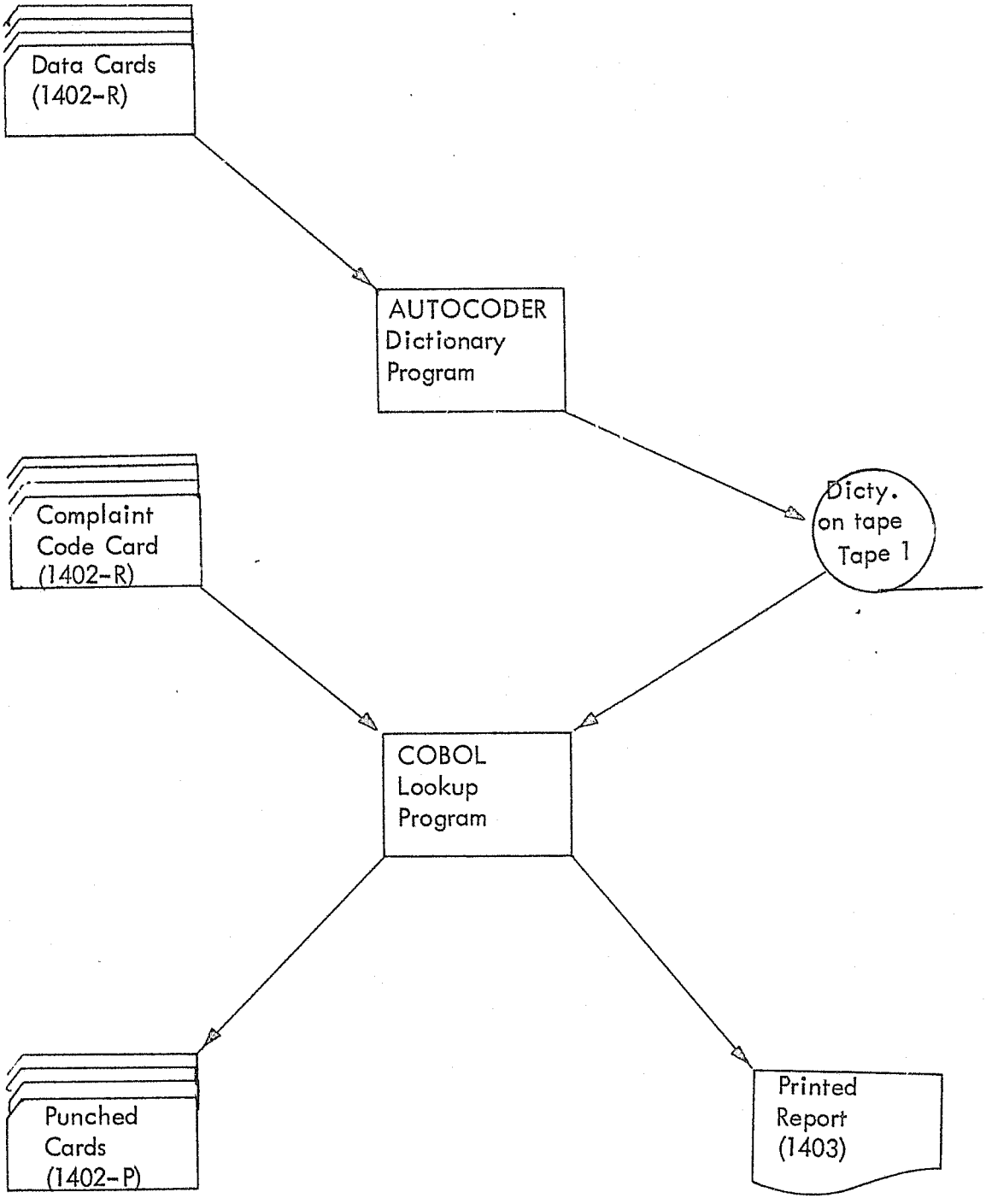
No match is found for data card 2. Data card 3 is read. It's even so record 3 is bypassed and record 4 is read. Record 4 matches and the desired information is retrieved. Data card 4 is read. Record 4 is not a match on address range, bypass it and read record 5. Record 5 is odd, bypass it and read record 6. This is a match. Data card 5 is odd, record 6 not a match. Even if odd-even records were linked the address range is not the same distance for each and in the last case data card 5 would still not be matched: Record 1 and 2 are linked so data cards 1 and 2 matched. Records 3 and 4 are linked, data card 3 is matched. Data card 4 not in that linked record so read records 5 and 6. Match data card 4 with record 6. Data card 5 doesn't match either record 4 or 5, its match is in record 3. So, even with linking, the problem is unsolved. Using tape, lookup must be run twice.

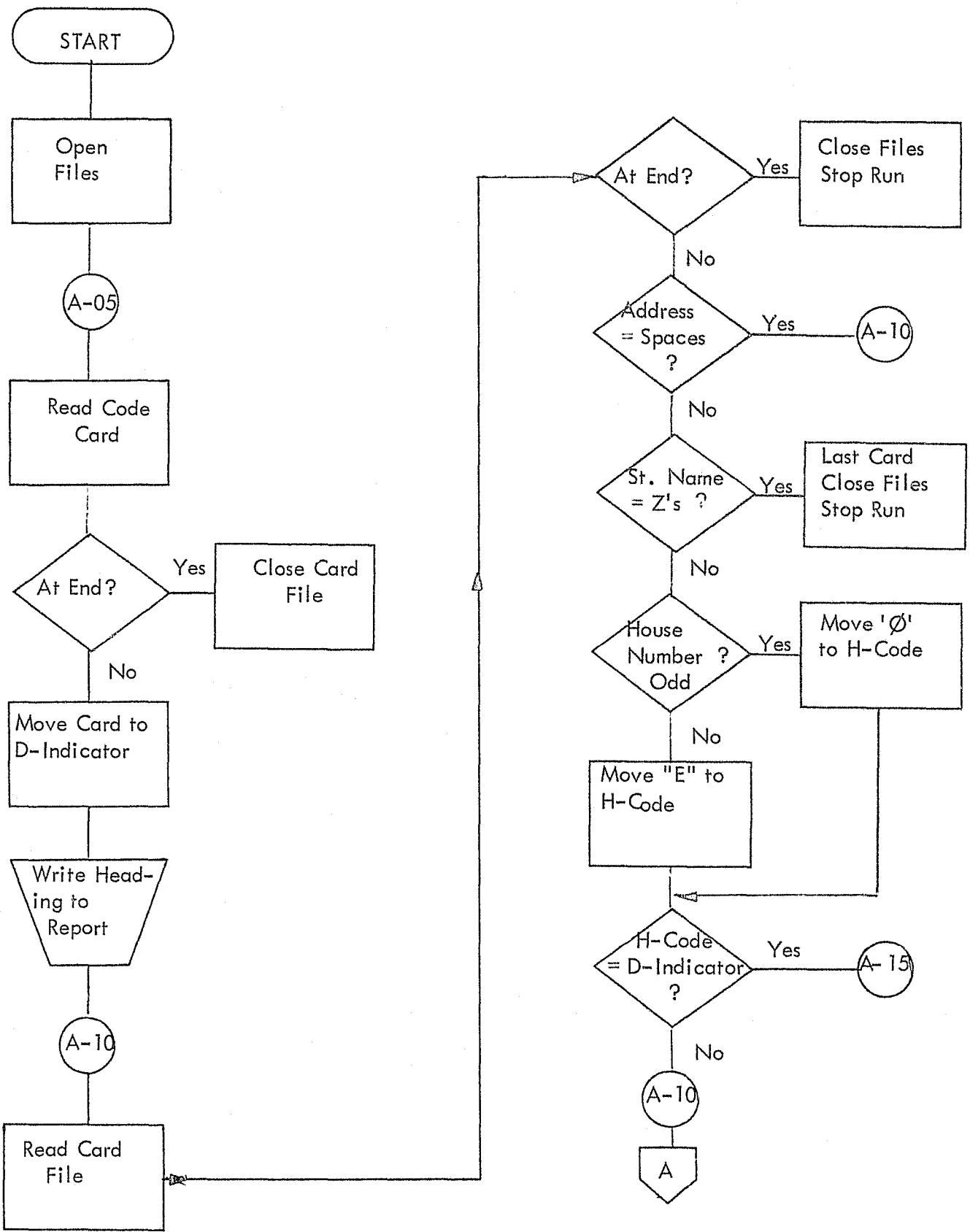
If the dictionary were on disk, organized sequentially as before, a given street name could be accessed immediately since disk permits random access. Post St can be retrieved immediately without reading street names A-P. An odd address whose record precedes the even address just processed can get the record. With a full scale dictionary of a city the tape dictionary would not be practical.

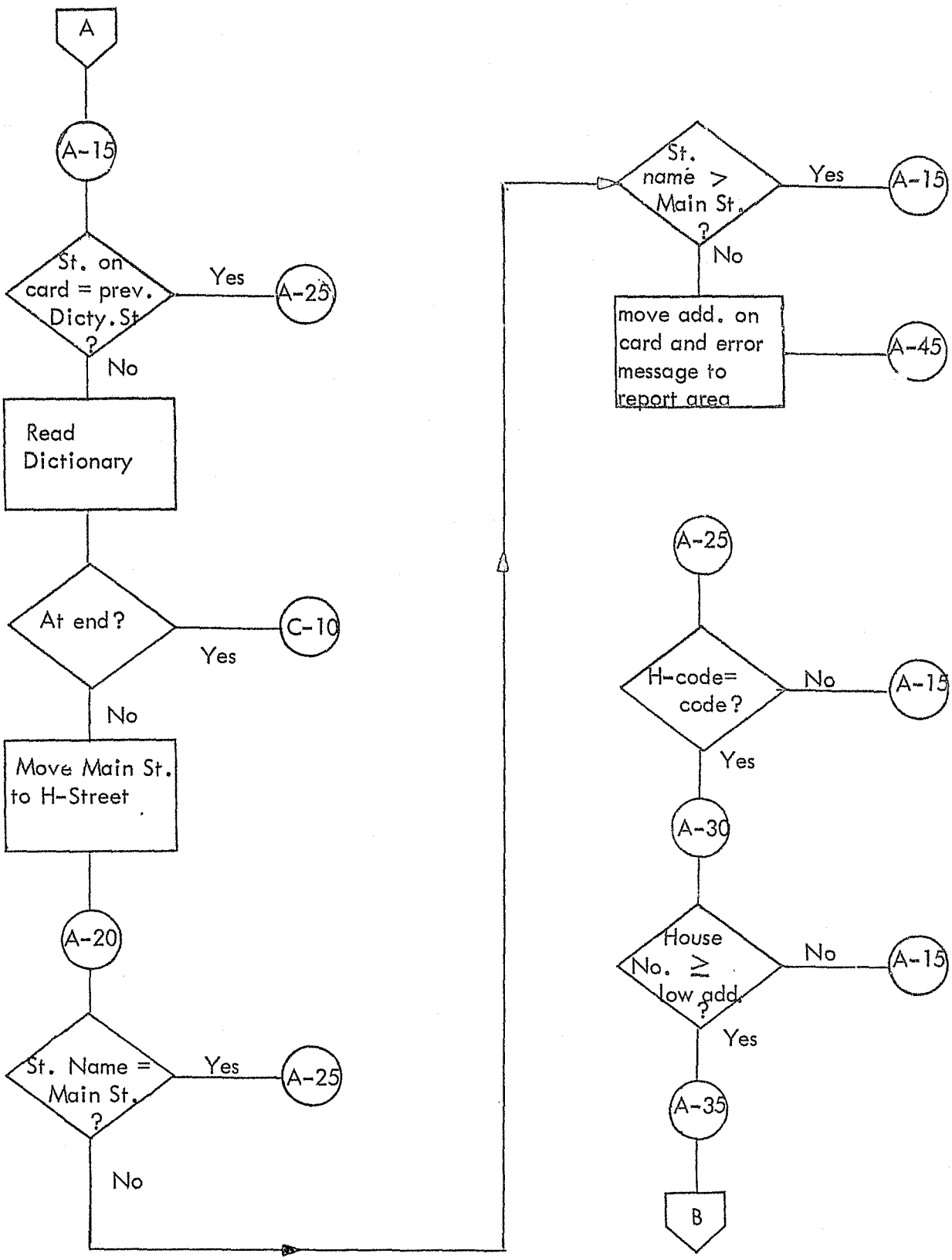
Part of Tract 6

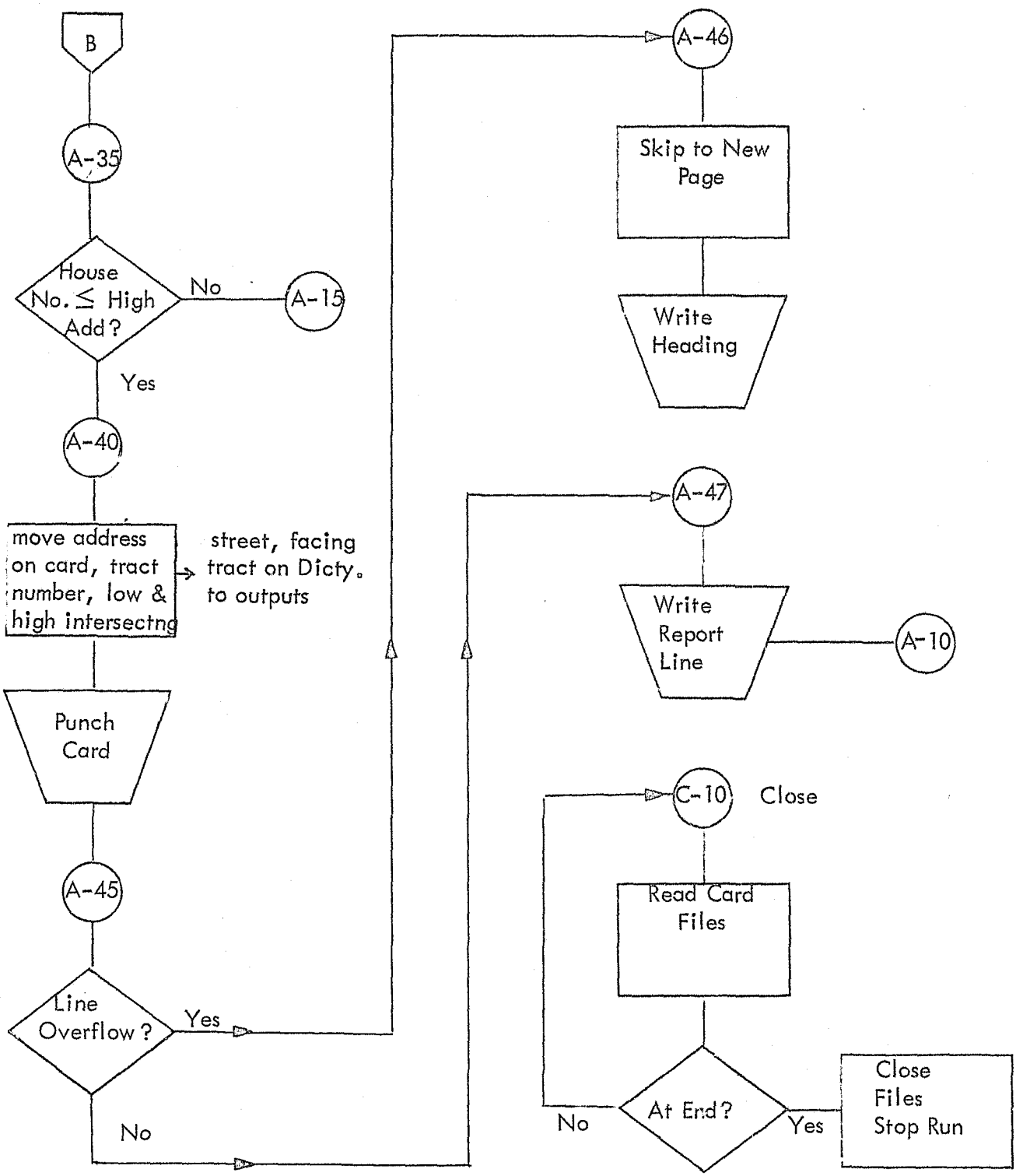


FLOW CHART OF SYSTEM




START
Open Files
A-05
Read Code Card
At End?
Yes
Close Card File
No
Move Card to D-Indicator
Write Heading to Report
A-10
Read Card File
At End?
Yes
Close Files Stop Run
No
Address = Spaces ?
Yes
A-10
No
St. Name = Z's ?
Yes
Last Card Close Files Stop Run
No
House Number ? Odd
Yes
Move 'Ø' to H-Code
No
Move "E" to H-Code
H-Code = D-Indicator ?
Yes
A-15
No
A-10
A


A
A-15
St. on card = prev. Dicty. St ?
Yes
A-25
No
Read Dictionary
At end?
Yes
C-10
No
Move Main St. to H-Street
A-20
St. Name = Main St. ?
Yes
A-25
No
St. name > Main St. ?
Yes
A-15
No
move add. on card and error message to report area
A-45
A-25
H-code= code?
No
A-15
Yes
A-30
House No. ≥ low add. ?
No
A-15
Yes
A-35
B


B
A-35
House No. ≤ High Add?
No
A-15
Yes
A-40
move address on card, tract number, low & high intersectng
street, facing tract on Dicty. to outputs
Punch Card
A-45
Line Overflow?
Yes
No
A-46
Skip to New Page
Write Heading
A-47
Write Report Line
A-10
C-10
Close
Read Card Files
At End?
No
Yes
Close Files Stop Run

APPENDIX A

BIBLIOGRAPHY

BIBLIOGRAPHY

"The Computer: Its Application Towards Police Work." Spring 3100, Vol. 38, No. 10, November, 1967, pp. 9-20.

Ahamad, B. "An Analysis of Crimes by the Method of Principal Components." Applied Statistics, Vol. 16, No. 1, 1967. London: Royal Statistical Society.

Angell, John E. and others. A National Survey of Police and Community Relations. The President's Commission on Law Enforcement and Administration of Justice, Field Survey V. Washington, D.C.: Government Printing Office, January, 1967.

Bard, Morton and Berkowitz, Bernard. "Training Police as Specialists in Family Intervention: A Community Psychology Action Program." Community Mental Health Journal, Vol. 3, No. 4, (Winter, 1967).

Bech, George N. "Municipal Police Performance Rating," Journal of Criminal Law, Criminology and Police Science, Vol. 51, No. 5, (January-February, 1961), pp. 567-574.

Bers, Ivar. "Economic Factors in Delinquency." Task Force Report: Juvenile Delinquency and Youth Crime, Report on Juvenile Justice and Consultants' Papers. The President's Commission on Law Enforcement and Administration of Justice. Washington, D.C.: Government Printing Office, 1967, pp. 305-316.

Biderman, Albert D. "Surveys of Population Samples for Estimating Crime Incidence." The Annals of the American Academy of Political and Social Science, Philadelphia: Vol. 374, November, 1967. Washington, D.C.: U.S. Department of Justice, Law Enforcement Assistance Administration.

Boston Police Department, assisted by Little, Arthur D. "Reports, Records and Communications in the Boston Police Department." LEAA Project Report, Washington, D.C.: Office of Law Enforcement Assistance, U.S. Department of Justice, May, 1968.

Brannon, Bernard C. "A Report on One-Man Police Patrol Cars in Kansas City, Missouri." Journal of Criminal Law, Criminology and Police Science, Vol. 47, No. 2, July-August, 1956, pp. 238-252.

Bureau of Criminal Statistics, California. Crime and Delinquency in California 1965, California: Bureau of Criminal Statistics, Department of Justice, Division of Criminal Law and Enforcement, 1965.

Callahan, John P. "Tactical Unit Used to Bolster Restive Areas." The New York Times, April 8, 1967.

Clark, John P. "Isolation of the Police: A Comparison of the British and American Situation." Journal of Criminal Law, Criminology and Police Science, Vol. 56, No. 3, September, 1965, pp. 307-319.

Clift, Raymond E. A Guide to Modern Police Thinking. Cincinnati: W.H. Anderson Company, 1956.

Crime Commission. Report of the President's Commission on Crime in the District of Columbia. Washington: Government Printing Office, 1966.

"Crime in Dispute." The Economist. London: September 16, 1967.

Cuadra, Carlos A. and others. "An Information Center for Law Enforcement." Technical Memorandum (TM-1670), Santa Monica, California: System Development Corp., January 2, 1964.

Department of Justice. "Study of Needs and the Development of Curricula in the Field of Forensic Science." Crime Laboratories - Three Study Reports, Law Enforcement Assistance Administration Project Report. Washington, D.C.: U.S. Department of Justice, April, 1968, pp. 1-74.

Department of Correction, State of New York. Characteristics of New Commitments, 1966, Vol. III, No. 2. Albany, N.Y.: Division of Research, 1966.

Duhl, Leonard, M.D. "The Possibilities of Minimizing Crime-Inducing Factors by the Design and Construction of City Areas." National Symposium on Science and Criminal Justice. Washington, D.C.: June, 1966, pp. 59-64.

Ennis, Philip H. Criminal Victimization in the United States: A Report of a National Survey, The President's Commission on Law Enforcement and Administration of Justice, Field Surveys II. Washington, D.C.: Government Printing Office, May, 1967.

Finnegan, Francis J. Preliminary Report on the Development of Police in The City of Philadelphia. Philadelphia Crime Commission, 1953.

Gottfredson, Don M. "Assessment and Prediction Methods in Crime and Delinquency." Task Force Report: Juvenile Delinquency and Youth Crime, Report on Juvenile Justice and Consultants' Papers, President's Commission on Law Enforcement and Administration of Justice. Washington, D.C.: Government Printing Office, 1967, pp. 171-187.

Gourley, Gerald Douglas. Police Administration. Springfield, Illinois: Charles C. Thomas, Publisher, 1961.

Governors' Planning Committees in Criminal Administration - Iowa, West Virginia Law Enforcement Assistance Administration Grants and Contracts. Washington, D.C.: Office of Law Enforcement Assistance, U.S. Department of Justice, June, 1969.

Griffin, John I. "Statistics Essential for Police Efficiency." Springfield, Illinois: Charles C. Thomas, Publisher, 1958.

Hockaday, E. I. "Motor Fleet Operation." Journal of Criminal Law, Criminology and Police Science, Vol. 51, No. 4, November-December, 1960, pp. 476-483.

Holcomb, Richard L. Police Patrol. Springfield, Illinois: Charles C. Thomas, Publisher, 1948.

Howe, Robert T. Fundamentals of Modern Systems of Land Parcel Records. Cincinnati, Ohio: University of Cincinnati, May, 1968.

Indices of Social Problems: Selected Socio-Economic Characteristics of New York City by Borough and Health Areas. New York: New York City Youth Board, 1960.

The International City Managers' Association. Municipal Police Administration, 5th Edition. Chicago: The International City Managers' Association, 1961.

Jeffers, J. N. R. "Two Case Studies in the Application of Principal Component Analysis." Applied Statistics. London: Royal Statistical Society, 1967.

Justice, Blair. "Detection of Potential Violence." Law Enforcement Assistance Administration Grants and Contracts. Washington, D.C.: U.S. Department of Justice, June, 1968.

Kingston, C.R. and Kish, P.L. "The Use of Statistics in Criminalistics." Journal of Criminal Law, Criminology and Police Science, Vol. 55, No. 4, December, 1964, pp. 514-521.

Leahy, Frank J., Jr. and others. "A Literature Review of Police Planning and Research." Interim Report to The Connecticut Research Commission. Hartford, Connecticut: The Travellers Research Center, Inc., October, 1968.

Lejins, Peter P. "The Prediction of Crime From Demographic Variables: A Methodological Note." Task Force Report: Crime and Its Impact - An Assessment, The President's Commission on Law Enforcement and Administration of Justice. Washington, D.C.: Government Printing Office, 1967, pp. 178-206.

Leonard, V.A. Police Organization and Management. Brooklyn, N.Y.: The Foundation Press, Inc., 1951.

Luger, Milton assisted by Saltman, Elias B. "The Youthful Offender." Task Force Report: Juvenile Delinquency and Youth Crime, Report on Juvenile Justice and Consultants' Papers, The President's Commission on Law Enforcement and Administration of Justice. Washington, D.C.: Government Printing Office, 1967, pp. 119-131.

Lunden, Walter A. "The Mobility of Chiefs of Police." Journal of Criminal Law, Criminology and Police Science, Vol. 49, No. 2, July-August, 1958, pp. 178-183.

Lundstedt, Sven. "Social Psychological Contribution to the Management of Law Enforcement Agencies." Journal of Criminal Law, Criminology and Police Science, Vol. 56, No. 3, September, 1965, pp. 375-381.

Mc Donell, R.E. A Police Beat Survey. Oakland, California: Police Department, 1955.

Mc Eachern, A.W., ed. SIMBAD - Part VI. The American Behavioral Scientist, Vol. XI, No. 3, January-February, 1968, pp. 28-42.

Mc Ewen, J., Pauly, G., and Finch, S.J. "Computer Mapping (SYMAP) - A New Technique for Crime Analysis." Law Enforcement Science and Technology. Vol. I of Proceedings of The First National Symposium on Law Enforcement Science and Technology edited by S.A. Yefsky. Washington, D.C.: Thompson Book Company, 1967.

Mc Kay, Henry D. "A Note on Trends in Rates of Delinquency in Certain Areas in Chicago." Task Force Report: Juvenile Delinquency and Youth Crime, Report on Juvenile Justice and Consultants' Papers, The President's Commission on Law Enforcement and Administration of Justice. Washington: Government Printing Office, 1967, pp. 114-118.

Metropolitan Police District. Analysis of Crime in 1967. London: New Scotland Yard, Statistical Branch, 1967.

Miller, Robert Gerard. "An Application of Multiple Discriminant Analysis to the Probabilistic Prediction of Meteorological Conditions Affecting Operational Decisions." Technical Memorandum No. 4. Hartford, Conn.: The Travellers Research Center, Inc., March, 1961.

Miller, Robert G. and Abrahamson, Karl A. "Futher Experiments Using Regression Estimation of Event Probabilities." TRC Research Paper. Hartford, Conn.: The Travellers Research Center, Inc., March, 1965.

Misner, Gordon E. "Recent Developments in Metropolitan Law Enforcement." Journal of Criminal Law, Criminology and Police Science, Vol. 51, No. 2, July-August, 1960, pp. 265-272. Ibid. Vol. 50, No. 5., Jan.-Feb., 1960 pp. 497-508.

Mode, Elmer B. "Probability and Criminalistics." Journal of the American Statistical Association, Vol. 58, No. 303, 1963, pp. 628-640.

Myren, Richard, A. "A Crisis in Police Management." Journal of Criminal Law, Criminology and Police Science, Vol. 50, No. 6, March-April, 1960, pp. 600-604.

National Center for Health Statistics. Homicide in the United States, 1950-1964, Vital and Health Statistics, Series 20, No. 6. Washington, D.C.: U.S. Department of Health, Education and Welfare, October, 1967.

Olsen, Bruce, "A Center for Police Planning and Research - A Proposal." Journal of Criminal Law, Criminology and Police Science, Vol. 50, No. 3, September-October, 1959, pp. 296-301.

Parons, Malcolm B. "The Administration of Police Juvenile Services in the Metropolitan Regions of the United States." Journal of Criminal Law, Criminology and Police Science, Vol. 54, No. 1, March, 1963, pp. 114-117.

Passonneau, Joseph R., Wurman, Richard Saul. Urban Atlas: 20 American Cities. Cambridge, Massachusetts: M.I.T. Pres, 1966.

Police Department, St. Louis, Mo. "Allocation of Patrol Manpower Resources in The St. Louis Police Department." An Experiment

Police Department, City of New York. "The Electronic Computer: A Weapon for Law Enforcement." New York Police Academy, February 1, 1966. (Seminar conducted by Univac Div. of Sperry Rand Corp.)

Piggins, Edward S. "The Assignment and Distribution of Police Personnel for Most Effective Coverage." The Police Yearbook 1956, International Association of Chiefs of Police.

President's Commission on Law Enforcement and Administration of Justice. The Challenge of Crime in a Free Society. Washington, D.C.: Government Printing Office, February, 1967.

President's Commission on Law Enforcement and Administration of Justice. "Crime and Its Impact - An Assessment." Washington, D.C.: Government Printing Office, 1967.

President's Commission on Law Enforcement and Administration of Justice. "Corrections", Task Force Report. Washington, D.C.: Government Printing Office, 1967.

President's Commission. "Report of the National Advisory Commission on Civil Disorders." March 1, 1968. Supplemental Studies, Washington, D.C.: Government Printing Office, July 1968.

President's Commission on Crime in The District of Columbia. "Report of The President's Commission on Crime in The District of Columbia" and Appendix. Washington, D.C.: Government Printing Office, 1966.

Reisman, Leonard E. "How Do You Educate a Policeman?" A.A.U.W. Journal, May, 1967. "Relating the Police Community to the Academic Community," Paper presented at the 1966 Annual Conference of the International Association of Police Professors, May 12-14, State University of New York.

Reiss, Albert J., Jr., Black, Donald J. "Interrogation and the Criminal Process." The Annals of the American Academy of Political and Social Sciences, Vol. 374, November, 1967.

Reiss, Albert J. "Measurement of the Nature and Amount of Crime." Studies in Crime and Law Enforcement in Major Metroplitan Areas, Field Survey III, Vol. I, Section 1. Washington, D.C.: Government Printing Office, 1967.

Resta, Paul Emil, and Smith, Charles Philip. Integration of Criminal Statistics and Correctional Research with EDP. Santa Monica, California: System Development Corp., August 2, 1963. (Paper presented at American Correctional Association, Portland, Oregon, August 29, 1963).

Resta, Paul Emil, and Smith, Charles Philip. The Use of Electronic Data Processing in Corrections and Law Enforcement. Paper presented at American Society of Criminology, Cleveland, Ohio, December 30, 1963. Santa Monica, Calif.: System Development Corp., December 18, 1963, SP-1495.

Rodman, Hyman and Grams, Paul. "Juvenile Delinquency and the Family: A Review Discussion." Task Force Report: Juvenile Delinquency and Youth Crime, Report on Juvenile Justice and Consultants' Papers, The President's Commissic on Law Enforcement and Administration of Justice. Washington, D.C.: Government Printing Office, 1967, pp. 188-221.

Schmid, Calvin, F. Urban Crime Areas: Part I, Part II. American Sociological Review, Vol. 25, No. 4, August, 1960, No. 5, October, 1960.

Schrotel, Stanley R. "Supervising the Use of Police Authority." Journal of Criminal Law, Criminology and Police Science, Vol. 47, No. 5, January-February, 1957, pp. 589-592.

System Development Corporation Study Team, Herrmann, William W., Lt. and others. "Natural Language Computer Processing of Los Angeles Police Department Crime Information." Technical Memorandum (TM1793/000/00). Santa Monica, California: System Development Corp., April 1, 1964.

Shafter, Albert L. "Numerical Strength of Small Police Departments." Journal of Criminal Law, Criminology and Police Science, Vol. 52, No. 3, September-October, 1961, pp. 344-346.

Shumate, Robert P. and Crowther, Richard F. "Quantitative Methods for Optimizing the Allocation of Police Resources." Journal of Criminal Law, Criminology and Police Science, Vol. 57, No. 2, June, 1966, pp. 197-205.

Smith, Bruce. Police Systems in the United States. New York: Harper & Bros., 1949.

Smith, R. Dean. "Computer Applications in Police Manpower Distribution." Police Yearbook 1960, International Association of Chiefs of Police, Washington, D.C.

Smith, R. Dean. "Random Patrol: An Application of Game Theory to Police Problems." Journal of Criminal Law, Criminology and Police Science, Vol. 53, No. 2, June, 1962, pp. 258-263.

Smith, S.D. "Automated Information Systems for Law Enforcement," Information Processing in the Business Environment, Hofstra University Yearbook of Business, Series 5, Vol. I, edited by Gregory E. Gates. Hempstead, N.Y.: Hofstra University, 1968, pp. 1-54.

Stein, D.P. and others. "The Prediction of Crime in a Metropolitan Area." Law Enforcement Science and Technology, Vol. I, Proceedings of the First National Symposium on Law Enforcement Science and Technology, edited by S. A. Yefsky. Washington, D.C.: Thompson Book Company, 1967, pp. 749-753.

Toby, Jackson. "Affluence and Adolescent Crime." Task Force Report: Juvenile Delinquency and Youth Crime, Report on Juvenile Justice and Consultants' Papers, The President's Commission on Law Enforcement and Administration of Justice. Washington, D.C.: Government Printing Office, 1967, pp. 132-144.

Tucker, Ledyard R. and Messick, Samuel. "An Individual Differences Model for Multidimensional Scaling." Psychometrika, Vol. 28, No. 4, December, 1963, pp. 333-367.

U.S. Department of Commerce. Report on National Needs for Criminal Justice Statistics. Washington, D.C.: U.S. Department of Commerce, Bureau of the Census, August, 1968.

United States Congress, Senate. Federal Role in Urban Affairs. Hearings before the Subcommittee on Executive Reorganization of the Committee on Government Operations. United States Senate, 90th Congress, Part 18, April 26, 1967. Washington, D.C.: Government Printing Office, 1967.

United States Congress, Senate. Riots, Civil and Criminal Disorders. Hearings before the Permanent Subcommittee on Investigations of the Committee on Government Operations, United States Senate, 90th Congress, Part V, March 19-20, 1968. Part 8, May 21, 22, 27, 28, 1968. Washington, D.C.: Government Printing Office, 1968.

Vierra, Joseph. "Computers and the Law." Computer Usage, Vol. 2, No. 1, Spring, 1967.

Walton, Frank E. "Selective Distribution of Police Patrol Force, History, Current Practices, Recommendation." Journal of Criminal Law, Criminology and Police Science, Vol. 49, No. 2, July-August, 1958, pp. 165-171 and Vol. 49, No. 4, November-December, 1958, pp.379-390.

Weston, Leon, and Kantner, Harold H. Optimal Location Allocation. Chicago, Illinois: Armour Research Foundation, May 16, 1958.

Wheeler, Stanton. "Criminal Statistics: A Reformulation of the Problem." Journal of Criminal Law, Criminology and Police Science, Vol. 58, No. 3, September, 1967, pp. 317-324.

Wilkins, Leslie T. "New Thinking in Criminal Statistics." Journal of Criminal Law, Criminology and Police Science, Vol. 56, No. 3, September, 1965, pp. 277-284.

Wilks, Judith A. "Ecological Correlates of Crime and Delinquency." Task Force Report: Crime and Its Impact - An Assessment, The President's Commission on Law Enforcement and Administration of Justice. Washington, D.C.: Government Printing Office, 1967, pp. 138-156.

Wilson, O.W. Police Administration. New York: Mc Graw Hill Co., 1963.

Wilson, O.W. Police Planning. 2nd ed. Springfield, Illinois: Charles C. Thomas, Publisher, 1957.

Wolfgang, Marvin. "International Criminal Statistics: A Proposal." Journal of Criminal Law, Criminology and Police Science, Vol. 58, No. 1, March, 1967, pp. 65-159.

APPENDIX B

TABULATION FROM SPECIAL CENSUS OF NEW HAVEN CITY APRIL 5, 1967

Totals and Percent Non-white for Ages 15-16-17-18 by Tract
New Haven City - 1967

	Age 15 Years		Age 16 Years		Age 17 Years		Age 18 Years	
Tract	Total	Percent Non-white	Total	Percent Non-white	Total	Percent Non-white	Total	Percent Non-white
1	3	33.3	6	16.7	10	40.0	75	9.3
2	4	0.0	2	0.0	1	0.0	4	0.0
3	53	32.1	56	26.8	42	31.0	84	13.1
4	50	8.0	38	13.2	53	15.1	48	12.5
5	86	44.2	80	32.5	80	37.5	73	35.6
6	97	63.9	123	58.5	89	58.4	149	55.0
7	38	68.4	35	60.0	53	52.8	73	24.6
8	51	39.2	61	36.1	53	26.4	87	27.6
9	35	5.7	46	0.0	54	3.7	86	2.3
10	70	0.0	67	0.0	56	0.0	45	0.0
11	66	0.0	64	0.0	67	0.0	36	0.0
12	89	27.0	91	8.8	104	20.2	95	11.6
13	68	44.1	76	44.7	79	27.8	231	12.6
14	63	15.9	72	19.4	83	22.9	90	6.7
15	151	79.5	143	80.4	169	76.9	182	73.1
16	137	95.6	127	91.3	133	88.7	113	87.6
17	9	22.2	3	33.3	85	3.5	700	1.7
18	35	28.6	43	48.8	47	40.4	142	13.4
19	53	11.3	75	1.3	64	4.7	64	3.1
20	31	0.0	40	10.0	31	3.2	40	10.0
21	29	44.8	33	51.5	35	57.1	44	56.8
22	23	26.1	28	17.9	22	18.2	33	12.1
23	72	11.1	100	10.0	81	11.1	68	11.8
24	67	14.9	103	17.5	95	12.6	84	10.7
25	74	14.9	75	8.0	102	7.8	69	4.3
26	140	14.3	126	12.7	121	9.9	117	12.0
27	95	0.0	70	0.0	80	0.0	77	0.0
28	91	0.0	103	0.0	82	0.0	68	0.0
Total	1,780	32.8	1,886	29.7	1,971	28.9	2,977	19.1

Source: Special Census, New Haven City, Imager Tables, 1967.

Population of New Haven City
by Tract and Block - 1967

Tract	Block	Population
1	101	99
	103	105
	104	34
	105	64
	106	91
	10A	9
	110	53
	11B	17
	12C	9
	127	15
	128	125
	129	363
	130	24
	132	31
Total		1,039
2	10A	42
	110	103
	11B	31
	999	3
Total		179
3	10A	393
	201	167
	202	115
	203	62
	204	63
	208	58
	209	141
	210	159
	211	209
	303	75
	304	332
	30B	30
	306	72
	307	133
	308	107
	401	299
	402	25
	404	155
	405	101
	406	345
	407	133
	408	67
	409	116
	501	262
	502	144
	503	184
	504	40
	505	161
	506	78
	507	38
	508	121
Total		4,385
4	101	106
	102	156
	104	130
	105	170
	106	65
	107	148
	108	121
	109	193
	110	134
	111	146
	112	128
	113	155
	114	65
	115	31
	203	104
	204	67
	205	126
	207	80
	302	47
	30A	283
	304	15
	305	380
	306	114
	307	201
	308	223
	309	85
Total		3,473
5	101	121
	102	76
	103	80
	104	213
	105	121
	106	237
	107	119
	108	184
	109	75
	201	221
	202	139
	203	135
	204	172
	205	89
	206	182
	301	252
	302	260
	303	330
	304	272
	305	259
	306	141
	401	134
	402	61
	403	19
	405	51
	501	9
	502	153

Population of New Haven City by Tract and Block - 1967

Tract	Block	Population
	503	23
	504	37
	505	77
	506	29
	507	231
	508	110
	509	219
	510	167
	511	25
	512	62
	513	50
	514	108
	515	202
	516	106
Total		5,551
6	101	325
	102	170
	103	234
	104	350
	105	384
	106	220
	107	193
	201	182
	202	224
	203	210
	204	123
	205	395
	206	112
	301	364
	302	509
	303	363
	304	240
	305	92
	306	35
	307	151
	308	133
	309	206
	310	293
	311	264
	312	237
	401	375
	402	433
	403	386
	404	161
	405	250
	406	251
	407	61
	408	130
Total		8,056
7	101	103
	102	127
	103	168
	105	138
	106	180
	107	431
	108	184
	201	133
	202	513
	204	751
	302	253
	303	300
	305	230
	30A	104
	307	124
	308	184
	309	213
	401	78
	403	250
	404	305
	405	71
	406	139
	407	51
	408	55
	501	182
	50B	161
	504	200
	505	334
	506	158
	507	231
	508	251
Total		6,602
8	101	259
	102	134
	103	103
	104	164
	105	52
	106	87
	201	154
	202	248
	203	209
	204	110
	205	136
	206	84
	207	67
	208	54
	301	57
	302	123
	303	73
	304	90
	305	121
	306	106
	307	84
	308	143
	309	100
	310	395
	402	187
	403	429
	404	300
	405	136

Population of New Haven City by Tract and Block - 1967

Tract	Block	Population
	406	153
	407	99
	408	169
	502	111
	503	144
	504	134
	505	42
	506	154
	507	66
Total		5,277
9	101	205
	102	111
	103	96
	104	128
	105	99
	106	164
	201	145
	202	179
	203	292
	205	104
	206	107
	208	163
	209	225
	210	192
	301	150
	304	161
	309	43
	310	59
	311	106
	312	77
	401	122
	402	185
	403	29
	404	214
	405	119
	406	99
	407	150
	501	87
	502	151
	503	58
	504	91
	505	96
	506	208
	507	204
	508	140
Total		4,759
10	102	149
	103	60
	104	64
	105	137
	106	312
	107	61
	108'	62
	109	126
	110	87
	113	61
	201	74
	202	31
	203	95
	204	61
	205	66
	206	53
	301	78
	302	87
	303	109
	304	88
	305	103
	306	128
	401	202
	402	31
	403	46
	404	61
	405	63
	406	97
	407	213
	408	258
	501	118
	502	87
	503	83
	504	112
	505	203
	506	396
	507	135
	508	53
	509	284
Total		4,534
11	101	183
	102	172
	103	70
	104	47
	105	50
	106	94
	108	85
	109	35
	111	76
	112	197
	113	360
	201	688
	202	147
	203	54
	204	41
	205	29
	206	50
	207	87
	209	30
	210	72
	211	406
	212	133
Total		3,106

Population of New Haven City by Tract and Block - 1967

Tract	Block	Population
12	10A	50
	105	710
	106	57
	108	81
	10B	69
	110	55
	111	548
	112	194
	113	509
	114	23
	115	291
	116	74
	117	272
	201	253
	202	149
	203	146
	204	191
	205	110
	206	144
	301	27
	302	211
	303	80
	304	97
	305	66
	306	122
	307	49
	308	46
	401	90
	402	32
	403	65
	404	149
	405	63
	406	52
	407	57
	408	58
	501	56
	502	66
	503	65
	504	74
	505	78
	506	218
	50C	154
Total		5,901
13	101	1,459
	102	733
	104	82
	107	79
	10A	312
	109	595
	111	145
	112	255
	201	323
	202	46
	203	49
	204	53
	205	146
	206	21
	207	23
	208	23
	301	157
	302	63
	303	28
	304	276
	305	239
	306	13
Total		5,119
14	102	189
	103	153
	104	41
	105	29
	106	42
	107	25
	108	129
	109	133
	110	257
	111	96
	112	109
	113	49
	201	41
	202	39
	203	24
	204	75
	205	44
	206	53
	207	55
	208	19
	301	195
	302	242
	303	162
	304	161
	305	384
	306	311
	401	135
	402	148
	403	142
	404	134
	405	413
	406	194
	407	139
	501	30
	502	53
	503	87
	504	88
	505	73
	506	85
	507	27
	508	27
	509	22
	510	49
	511	29
Total		4,932

Population of New Haven City by Tract and Block - 1967

Tract	Block	Population
15	101	126
	102	151
	103	92
	104	218
	105	180
	106	212
	107	133
	20A	253
	203	229
	204	126
	205	89
	206	89
	301	93
	302	72
	303	143
	304	221
	305	257
	306	219
	401	219
	402	46
	403	20
	404	127
	405	29
	406	43
	407	135
	408	194
	409	185
	410	153
	501	191
	502	483
	503	273
	504	125
	505	208
	506	376
	507	288
	601	116
	602	172
	603	231
	604	204
	605	239
	606	269
	607	67
	701	411
	702	151
	703	143
	704	91
	705	196
	706	232
	707	70
	801	105
	802	145
	803	108
	804	55
	805	137
	806	197
	807	104
	808	44
	809	105
Total		9,590
16	101	159
	102	841
	103	209
	104	176
	105	169
	106	72
	202	303
	203	206
	204	397
	205	220
	20A	64
	301	497
	302	318
	303	289
	304	448
	305	324
	306	412
	401	196
	402	268
	403	59
	404	104
	405	59
	406	147
	501	71
	502	153
	503	192
	504	260
	505	284
	506	298
	602	122
	603	122
	604	299
	605	173
	606	36
Total		7,947
17	101	75
	102	250
	103	47
	104	76
	10A	36
	20B	512
	206	420
	30C	1,978
	30D	649
	307	690
	401	13
	40E	675
	406	27
	407	151
Total		5,599

Population of New Haven City
by Tract and Block - 1967

Tract	Block	Population
18	10A	33
	103	138
	104	109
	105	73
	106	214
	107	65
	201	398
	202	51
	203	431
	204	401
	207	229
	208	246
	209	233
	301	460
	302	63
	303	147
	304	52
	305	86
	30B	37
	308	60
	309	22
	401	319
	402	292
	403	338
	404	271
	405	204
	406	62
	407	199
Total		5,233
19	102	64
	103	46
	104	36
	10A	125
	106	127
	107	77
	108	98
	201	138
	202	99
	203	102
	204	283
	205	78
	206	219
	207	274
	301	203
	302	130
	303	204
	304	176
	305	194
	306	187
	307	153
	308	87
	401	81
	402	31
	403	63
	404	166
	405	136
	406	150
	407	394
	408	96
	409	190
	410	218
	411	143
	501	103
	502	60
	503	225
	505	180
	506	285
	507	75
	508	30
Total		5,726
20	101	704
	102	207
	103	177
	104	420
	105	319
	106	115
	107	138
	108	112
	201	378
	202	168
	203	120
	204	210
	205	103
	206	71
	207	63
	208	42
	301	169
	304	18
	30A	45
	30B	37
Total		3,612
21	103	67
	105	97
	106	39
	107	196
	108	22
	109	123
	11A	73
	112	214
	126	585
	201	47
	202	145
	203	279
	204	78
	205	67

Population of New Haven City
by Tract and Block - 1967

Tract	Block	Population
	206	342
	20B	31
Total		2,405
22	303	187
	304	421
	305	61
	30A	15
	308	136
	309	90
	310	123
	401	170
	402	159
	404	116
	406	195
	407	161
	408	128
	409	169
Total		2,131
23	102	129
	103	81
	104	264
	105	46
	106	124
	108	114
	109	93
	110	120
	111	136
	11A	112
	20B	63
	20C	16
	207	77
	301	200
	302	191
	303	194
	304	201
	305	153
	306	158
	307	192
	401	142
	402	196
	403	110
	404	133
	405	150
	406	156
	407	115
	408	154
	501	194
	502	221
	50D	218
	507	228
	508	364
	509	203
	510	38
	512	25
	513	144
Total		5,455
24	102	45
	103	28
	104	166
	105	246
	106	124
	107	92
	108	48
	109	154
	110	80
	111	180
	201	118
	202	200
	203	299
	204	284
	205	127
	206	171
	207	161
	208	140
	209	187
	301	193
	302	164
	303	221
	304	215
	305	272
	306	94
	308	48
	309	318
	310	80
	401	297
	402	130
	403	96
	404	189
	40A	138
	505	41
	506	36
	507	55
	999	31
Total		5,468
25	101	121
	102	121
	103	76
	104	112
	10A	92
	204	142
	205	507
	20B	21
	209	177
	210	132
	301	154
	302	89

Population of New Haven City
by Tract and Block - 1967

Tract	Block	Population
	303	70
	304	44
	305	128
	306	113
	308	31
	309	49
	310	54
	311	70
	312	173
	313	119
	314	249
	401	327
	402	16
	403	44
	404	162
	405	133
	406	149
	407	130
	501	56
	502	85
	503	140
	504	107
	505	145
	506	192
	507	54
	601	80
	602	130
	605	116
	606	20
	608	58
	609	219
	610	165
	611	36
	613	31
	61C	63
	616	75
	61D	88
	999	107
Total		5,772
26	101	138
	102	309
	103	37
	104	86
	105	228
	106	365
	107	63
	108	127
	201	47
	202	114
	203	94
	205	570
	20A	365
	208	253
	209	310
	210	65
	211	90
	21B	220
	301	47
	302	69
	303	48
	304	53
	305	234
	306	323
	307	20
	308	12
	309	460
	401	199
	402	80
	403	118
	404	97
	405	141
	406	5
	407	75
	408	71
	409	116
	410	141
	411	169
	412	40
	413	330
	502	143
	503	27
	504	55
	505	22
	506	61
	507	28
	508	26
	509	74
	510	107
	511	37
	512	69
	513	65
	514	536
	515	47
	516	46
	517	231
	518	119
	519	429
	999	119
Total		8,570
27	101	100
	103	37
	104	173
	105	480
	106	55
	107	37
	108	64

Population of New Haven City
by Tract and Block - 1967

Tract	Block	Population
	109	113
	110	126
	111	144
	112	37
	115	52
	11A	52
	20B	72
	206	50
	207	57
	208	98
	209	70
	210	167
	211	267
	212	35
	213	143
	214	56
	215	163
	216	80
	217	22
	218	81
	219	122
	220	121
	221	255
	302	277
	401	177
	402	120
	403	178
	404	133
	405	44
	406	99
	407	119
	408	150
	409	247
	410	99
	411	139
	412	59
	413	29
	41C	91
	41D	46
	418	41
	419	24
Total		5,401
28	101	719
	10A	58
	104	46
	105	49
	10B	30
	108	127
	109	95
	110	71
	111	49
	112	57
	113	151
	114	94
	115	37
	116	38
	117	129
	118	78
	119	42
	201	53
	202	110
	203	158
	204	71
	205	78
	206	90
	207	50
	208	58
	209	47
	210	104
	211	110
	212	229
	221	20
	301	333
	302	90
	304	134
	305	120
	306	69
	307	85
	308	37
	309	51
	310	65
	311	92
	312	118
	313	63
	314	57
	315	69
	316	45
	317	146
	318	46
	319	36
	320	49
	321	62
	322	130
	402	33
	404	43
	405	111
	406	44
	40C	55
	411	337
	412	58
	413	212
	414	34
	415	29
	416	29
Total		5,930
Total Population Tracts 1-28		141,752

Source: Bureau of the Census, Census Use Office
Imager Series: 1968.

Average Rent by Tract and Block
New Haven City - 1967

Tract	Block	Avg. Rent
1	101	70
	103	92
	104	115
	105	113
	106	75
	10A	110
	110	68
	11B	105
	12C	30
	127	88
	128	71
	129	43
	130	77
	132	200
		71
2	10A	46
	110	74
	11B	68
	999	125
Tract Avg.		71
3	10A	45
	201	64
	202	83
	203	62
	204	61
	208	57
	209	85
	210	64
	211	82
	303	73
	304	84
	30B	80
	306	94
	307	87
	308	87
	401	99
	402	92
	404	75
	405	59

Tract	Block	Avg. Rent
3	406	86
	407	69
	408	76
	409	68
	501	78
	502	71
	503	73
	504	63
	505	101
	506	83
	507	69
	508	77
Tract Avg.		78
4	101	79
	102	69
	104	78
	105	78
	106	82
	107	80
	108	77
	109	80
	110	78
	111	80
	112	82
	113	113
	114	66
	115	86
	203	93
	204	85
	205	66
	207	82
	302	72
	30A	77
	304	76
	305	76
	306	83
	307	76
	308	85
	309	70
Tract Avg.		80

Tract	Block	Avg. Rent
5	101	63
	102	90
	103	67
	104	74
	105	97
	106	72
	107	70
	108	71
	109	64
	201	75
	202	78
	203	71
	204	82
	205	86
	206	75
	301	72
	302	72
	303	77
	304	76
	305	87
	306	58
	401	69
	402	69
	403	46
	405	88
	501	70
	502	87
	503	191
	504	56
	505	78
	506	57
	507	74
	508	65
	509	76
	510	86
	511	70
	512	73
	513	63
	514	75
	515	77
	516	68
Tract Avg.		75
6	101	89
	102	95
	103	77
	104	78
	105	84
	106	92
	107	89
	201	72
	202	90
	203	87
	204	78
	205	85
	206	75
	301	80
	302	75
	303	83
	304	84
	305	82
	306	65
	307	79
	308	85
	309	76
	310	86
	311	75
	312	81
	401	76
	402	86
	403	65
	404	79
	405	82
	406	67
	407	73
	408	82
Tract Avg.		81

Tract	Block	Avg. Rent
7	101	93
	102	81
	103	119
	105	72
	106	74
	107	92
	108	96
	201	85
	202	142
	204	173
	302	64
	303	84
	305	54
	30A	81
	307	79
	308	64
	309	115
	401	107
	403	88
	404	92
	405	105
	406	86
	407	85
	408	79
	501	88
	50B	111
	504	93
	505	97
	506	88
	507	86
	508	101
Tract Avg.		104

Tract	Block	Avg. Rent
8	101	95
	102	135
	103	97
	104	100
	105	94
	106	84
	201	95
	202	76
	203	79
	204	100
	205	90
	206	71
	207	95
	208	61
	301	57
	302	80
	303	80
	304	74
	305	66
	306	69
	307	97
	308	78
	309	93
	310	98
	402	91
	403	84
	404	90
	405	94
	406	76
	407	94
	408	109
	502	91
	503	103
	504	89
	505	97
	506	106
	507	87
Tract Avg.		89

Tract	Block	Avg. Rent
9	101	101
	102	95
	103	94
	104	96
	105	115
	106	103
	201	89
	202	115
	203	116
	205	84
	206	91
	208	107
	209	98
	210	101
	301	115
	304	109
	309	102
	310	93
	311	98
	312	100
	401	95
	402	107
	403	105
	404	93
	405	97
	406	94
	407	94
	501	91
	502	106
	503	101
	504	106
	505	100
	506	104
	507	113
	508	102
Tract Avg.		103

Tract	Block	Avg. Rent
10	102	100
	103	175
	104	87
	105	79
	106	113
	107	-
	108	120
	109	107
	110	110
	113	94
	201	105
	202	-
	203	-
	204	-
	205	169
	206	-
	301	90
	302	-
	303	100
	304	225
	305	194
	306	117
	401	97
	402	-
	403	125
	404	-
	405	165
	406	159
	407	103
	408	103
	501	103
	502	106
	503	108
	504	106
	505	127
	506	190
	507	102

Tract	Block	Avg. Rent
10	508	100
	509	121
Tract Avg.		129
11	101	126
	102	170
	103	-
	104	-
	105	-
	106	200
	108	113
	109	-
	111	-
	112	-
	113	125
	201	117
	202	-
	203	-
	204	-
	205	-
	206	150
	207	-
	209	-
	210	117
	211	161
	212	113
Tract Avg.		135
12	10A	78
	105	81
	106	129
	108	74
	10B	155
	110	-
	111	74
	112	83
	113	81

Tract	Block	Avg. Rent
12	114	45
	115	77
	116	100
	117	67
	201	103
	202	90
	203	100
	204	107
	205	95
	206	99
	301	115
	302	125
	303	85
	304	86
	305	83
	306	106
	307	175
	308	85
	401	112
	402	90
	403	-
	404	132
	405	-
	406	-
	407	-
	408	-
	501	114
	502	-
	503	-
	504	-
	505	-
	506	122
	50C	137
Tract Avg.		93

Tract	Block	Avg. Rent
13	101	77
	102	79
	104	92
	107	111
	10A	139
	109	118
	111	179
	112	144
	201	143
	202	90
	203	99
	204	-
	205	107
	206	62
	207	116
	208	152
	301	94
	302	97
	303	108
	304	117
	305	133
	306	130
Tract Avg.		110
14	102	96
	103	95
	104	80
	105	125
	106	-
	107	-
	108	75
	109	-
	110	-
	111	-
	112	116
	113	115
	201	98
	202	-

Tract	Block	Avg. Rent
14	203	-
	204	-
	205	60
	206	124
	207	-
	208	-
	301	92
	302	100
	303	79
	304	94
	305	105
	306	97
	401	103
	402	95
	403	83
	404	89
	405	95
	406	124
	407	120
	501	52
	502	-
	503	-
	504	-
	505	-
	506	-
	507	-
	508	-
	509	185
	510	245
	511	-
Tract Avg.		100

Tract	Block	Avg. Rent
15	101	92
	102	89
	103	99
	104	81
	105	78
	106	83
	107	79
	20A	89
	203	81
	204	80
	205	88
	206	85
	301	85
	302	87
	303	98
	304	86
	305	86
	306	86
	401	89
	402	79
	403	44
	404	83
	405	76
	406	89
	407	81
	408	94
	409	93
	410	78
	501	95
	502	89
	503	110
	504	94
	505	83
	506	79
	507	89
	601	86
	602	108
	603	84
	604	91
	605	83
	606	99
	607	74
	701	88
	702	78
	703	125
	704	91
	705	79
	706	90
	707	110
	801	93
	802	92
	803	80
	804	97
	805	87
	806	95
	807	119
	808	80
	809	85
Tract Avg.		88

Tract	Block	Avg. Rent
16	101	82
	102	79
	103	85
	104	88
	105	94
	106	85
	202	82
	203	66
	204	62
	205	58
	20A	59
	301	69
	302	61
	303	64
	304	82
	305	80
	306	101
	401	86
	402	85
	403	111
	404	79
	405	110
	406	85
	501	78
	502	87
	503	100
	504	82
	505	79
	506	83
	602	87
	603	101
	604	83
	605	66
	606	-
Tract Avg.		78

Tract	Block	Avg. Rent
17	101	94
	102	94
	103	33
	104	78
	10A	100
	20B	85
	206	89
	30C	118
	30D	15
	307	73
	401	88
	40E	60
	406	153
	407	103
Tract Avg.		88
18	10A	253
	103	137
	104	157
	105	144
	106	130
	107	119
	201	138
	202	135
	203	80
	204	119
	207	95
	208	110
	209	115
	301	135
	302	192
	303	-
	304	50
	305	-
	30B	-
	308	180
	309	-

Tract	Block	Avg. Rent
18	401	95
	402	109
	403	92
	404	96
	405	97
	406	96
	407	159
Tract Avg.		120
19	102	65
	103	113
	104	70
	10A	108
	106	99
	107	141
	108	74
	201	71
	202	72
	203	75
	204	67
	205	71
	206	69
	207	70
	301	68
	302	110
	303	75
	304	83
	305	87
	306	87
	307	78
	308	95
	401	111
	402	176
	403	99
	404	108
	405	109

Tract	Block	Avg. Rent
19	406	105
	407	145
	408	126
	409	130
	410	114
	411	125
	501	121
	502	180
	503	118
	505	116
	506	132
	507	118
	508	178
Tract Avg.		105
20	101	92
	102	96
	103	108
	104	79
	105	72
	106	95
	107	85
	108	68
	201	78
	202	95
	203	107
	204	100
	205	87
	206	97
	207	77
	208	92
	301	93
	304	89
	30A	102
	30B	114
		90

Tract	Block	Avg. Rent
21	103	44
	105	72
	106	47
	107	72
	108	49
	109	82
	11A	75
	112	74
	126	64
	201	96
	202	82
	203	71
	204	66
	205	90
	206	71
	20B	50
Tract Avg.		70
22	303	55
	304	85
	305	66
	30A	64
	308	102
	309	73
	310	90
	401	93
	402	115
	404	93
	406	98
	407	68
	408	72
	409	86
Tract Avg.		85

Tract	Block	Avg. Rent
23	102	51
	103	66
	104	67
	105	81
	106	73
	108	73
	109	66
	110	70
	111	67
	11A	68
	20B	74
	20C	58
	207	85
	301	65
	302	67
	303	70
	304	77
	305	70
	306	71
	307	73
	401	70
	402	77
	403	92
	404	67
	405	71
	406	68
	407	68
	408	68
	501	64
	502	85
	50D	60
	507	65
	508	70
	509	71
	510	50
	512	58
	513	57
Tract Avg.		69

Tract	Block	Avg. Rent
24	102	149
	103	284
	104	73
	105	77
	106	97
	107	71
	108	80
	109	70
	110	54
	111	72
	201	74
	202	77
	203	72
	204	60
	205	61
	206	67
	207	77
	208	74
	209	80
	301	62
	302	69
	303	65
	304	63
	305	83
	306	80
	308	72
	309	69
	310	71
	401	70
	402	72
	403	51
	404	64
	40A	72
	505	71
	506	64
	507	71
	999	60
Tract Avg.		72

Tract	Block	Avg. Rent
25	101	62
	102	80
	103	74
	104	68
	10A	67
	204	59
	205	64
	20B	65
	209	68
	310	79
	301	76
	302	72
	303	84
	304	56
	305	71
	306	76
	308	85
	309	71
	310	85
	311	77
	312	75
	313	95
	314	83
	401	84
	402	85
	403	92
	404	65
	405	110
	406	92
	407	75
	501	71
	502	74
	503	71
	504	77
	505	66
	506	68
	507	77

Tract	Block	Avg. Rent
25	601	67
	602	71
	605	75
	606	88
	608	80
	609	68
	610	69
	611	64
	613	87
	61C	115
	616	170
	61D	74
	999	61
Tract Avg.		74
26	101	125
	102	113
	103	-
	104	-
	105	132
	106	145
	107	121
	108	109
	201	85
	202	77
	203	95
	205	79
	20A	79
	208	107
	209	104
	210	90
	211	-
	21B	79
	301	85
	302	83
	303	-
	304	-

Tract	Block	Avg. Rent
26	305	79
	306	94
	307	-
	308	102
	309	98
	401	92
	402	81
	403	81
	404	82
	405	79
	406	65
	407	77
	408	66
	409	63
	410	75
	411	67
	412	73
	413	82
	502	89
	503	-
	504	75
	505	-
	506	-
	507	125
	508	-
	509	115
	510	83
	511	90
	512	81
	513	97
	514	111
	515	85
	516	93
	517	110
	518	100
	519	107
	999	80
Tract Avg.		95

Tract	Block	Avg. Rent
27	101	76
	103	62
	104	131
	105	104
	106	153
	107	73
	108	95
	109	108
	110	115
	111	86
	112	85
	115	85
	11A	101
	20B	85
	206	103
	207	73
	208	110
	209	91
	210	92
	211	112
	212	79
	213	72
	214	73
	215	75
	216	88
	217	40
	218	95
	219	81
	220	94
	221	68
	302	116
	401	83
	402	65
	403	69
	404	63
	405	87
	406	71
	407	84
	408	82
	409	94
	410	66
	411	105
	412	64
	413	91
	41C	66
	41D	66
	418	106
	419	69
Tract Avg.		91
28	101	116
	10A	1 -
	104	113
	105	-
	10B	51
	108	-
	109	-
	110	128
	111	67
	112	66
	113	82
	114	130
	115	-
	116	98
	117	97
	118	87
	119	101
	201	-
	202	118
	203	98
	204	-
	205	-
	206	-

Tract	Block	Avg. Rent
28	207	-
	208	-
	29	108
	210	95
	211	118
	212	140
	301	95
	302	113
	304	104
	305	100
	306	93
	307	103
	308	-
	309	107
	310	118
	311	90
	312	89
	313	77
	314	35
	315	82
	316	68
	317	88
	318	83
	319	88
	320	-
	321	129
	322	85
	402	120
	404	98
	405	89
	406	75
	411	101
	412	78
	413	85
	414	80
	415	96
	416	106
Tract Avg.		106

Source: Special Census, New Haven City, Imager Tables, 1967.

CONTINUED

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Percent and Number of Persons Born in Another State by Tract and Block
New Haven City - 1967

Tract	Block	New England and Mid-Atlantic	South (Southeast, East and West Miss.)	Other	Total Born out of State	Percent
1	101-103	93.7	6.3	-	174	0.7
1	104-109	95.7	2.1	2.1	187	0.8
1	110	90.3	9.8	-	41	0.2
1	111-132	80.4	7.9	11.6	541	2.3
2	110	75.3	10.1	14.5	69	0.3
3	201 202	73.9	11.1	15.1	253	1.1
3	203	94.5	5.5	-	73	0.3
3	204-208	85.8	11.3	2.8	106	0.4
3	209	100.0	-	-	97	0.4
3	210	82.3	7.6	10.1	79	0.3
3	211	81.0	19.0	-	237	1.0
3	303,304	88.3	3.5	8.2	376	1.6
3	306	100.0	-	-	108	0.5
3	307	93.2	2.9	1.1	175	0.7
3	308	73.5	20.3	6.3	79	0.3
3	401	93.3	6.7	-	224	0.9
3	402-404	90.6	9.4	-	191	0.8
3	405	100.0	-	-	66	0.3
3	406	88.2	9.4	-	298	1.3
	407	73.5	24.3	2.3	177	0.7
3	408,409	49.6	-	50.4	123	0.5
3	501	86.1	12.5	1.4	287	1.2
3	502	81.9	12.1	6.1	99	0.4
3	503	69.0	-	31.0	174	0.7
3	504,505	100.0	-	-	143	0.6
3	506,507	94.9	2.6	2.6	117	0.5
3	508	86.7	13.3	-	45	0.2
4	105	87.6	10.2	2.2	186	0.8
4	106,107	100.0	-	-	182	0.8
4	108	94.0	-	6.0	84	0.4
4	109	93.9	6.1	-	163	0.7
4	110	76.9	7.4	15.7	121	0.5
4	111	95.5	-	4.5	112	0.5
4	112	100.0	-	-	92	0.4
4	113	100.0	-	-	88	0.4
4	114,115	99.9	-	-	80	0.3

4	203	88.1	-	11.8	93	0.4
4	204	100.0	-	-	94	0.4
4	205	96.8	-	3.2	124	0.5
4	302,303	97.8	1.5	0.7	411	1.7
4	304,305	95.8	3.2	1.0	403	1.7
4	306	94.8	-	5.2	155	0.7
4	307	90.3	9.7	-	155	0.7
4	308	94.3	4.0	1.7	177	0.7
4	309	100.0	-	-	58	0.2
5	101	82.6	17.4	-	149	0.6
5	102,103	54.5	37.3	8.2	110	0.5
5	104	68.7	31.2	-	224	0.9
5	105	89.4	10.6	-	104	0.4
5	106	78.3	17.8	3.9	230	1.0
5	107	63.0	31.5	5.5	73	0.3
5	108	21.9	33.8	44.2	210	0.9
5	109	82.1	8.9	9.0	123	0.5
5	201	85.4	9.9	4.7	171	0.7
5	202	92.6	7.4	-	121	0.5
5	203	60.7	22.8	12.7	118	0.5
5	204	80.5	19.5	-	159	0.7
5	205	94.1	-	5.9	85	0.4
5	206	70.2	26.1	3.7	134	0.6
5	301	78.1	13.5	8.4	237	1.0
5	302	71.3	14.9	13.8	181	0.8
5	303	86.1	13.1	0.8	374	1.6
5	304	72.4	25.3	2.3	265	1.1
5	305	85.6	5.4	9.0	277	1.2
5	306	95.9	-	4.1	121	0.5
5	401	90.2	9.8	-	51	0.2
5	402-405	88.7	11.3	-	124	0.5
5	501,502	92.9	7.1	-	127	0.5
5	503-506	92.3	7.6	-	157	0.7
5	507	100.0	-	-	209	0.9
5	508	78.6	21.4	-	117	0.5
5	509	90.7	9.3	-	140	0.6
5	510	87.0	-	13.0	92	0.4

5	511,513	100.0	-	-	101	0.4
5	514	100.0	-	-	46	0.2
5	515	100.0	-	-	147	0.6
5	516	74.2	25.8	-	128	0.5
6	101	68.4	30.5	1.1	374	1.6
6	102	92.6	4.9	2.5	162	0.7
6	103	90.0	8.2	1.8	220	0.9
6	104	81.8	18.2	-	308	1.3
6	105	98.4	-	1.6	245	1.0
6	106	82.2	7.5	10.3	213	0.9
6	107	85.0	15.0	-	180	0.8
6	201	78.7	21.3	-	174	0.7
6	202	92.7	1.7	5.6	177	0.7
6	203	89.5	5.2	5.2	249	1.1
6	204	80.0	20.0	-	110	0.5
6	205	72.9	21.0	6.1	410	1.7
6	206	78.3	6.5	15.2	92	0.4
6	301	84.4	8.2	7.4	269	1.1
6	302	80.1	18.3	1.6	442	1.9
6	303	78.6	12.4	9.0	322	1.4
6	304	97.9	2.1	-	193	0.8
6	306,307	94.0	4.3	1.6	185	0.8
6	308	97.7	2.3	-	131	0.6
6	309	93.7	4.7	1.6	254	1.1
6	310	80.2	19.8	-	187	0.8
6	311	81.0	15.2	3.8	184	0.8
6	312	82.0	16.2	1.9	216	0.9
6	401	94.2	4.7	1.2	345	1.5
6	402	86.9	6.4	6.7	345	1.5
6	403	95.8	1.2	3.0	327	1.4
6	404	87.1	12.9	-	101	0.4
6	405	73.3	26.8	-	213	0.9
6	406	85.8	7.1	7.1	225	0.9
6	407,408	69.4	30.6	-	157	0.7

7	101	56.9	26.6	16.5	109	0.5
7	102	86.9	13.1	-	107	0.5
7	103	55.2	8.3	36.6	145	0.6
7	105	79.8	11.8	8.4	119	0.5
7	106	93.7	3.7	2.5	160	0.7
7	107	81.3	6.9	11.8	391	1.6
7	108	59.6	23.4	17.0	124	0.5
7	302	71.9	9.4	18.5	214	0.9
7	303	87.7	7.4	4.9	324	1.4
7	305	91.5	3.3	5.2	153	0.6
7	306	93.9	6.2	-	65	0.3
7	307	85.2	-	14.8	129	0.5
7	308	79.8	11.3	8.8	124	0.5
7	309	84.9	10.0	5.0	179	0.8
7	403	65.4	27.6	6.9	246	1.0
7	404	78.3	18.8	2.9	239	1.0
7	405	74.1	26.0	-	81	0.3
7	406	84.0	11.5	4.4	113	0.5
7	407,408	81.0	12.7	6.3	79	0.3
7	501	75.6	19.3	5.1	156	0.7
7	502	100.0	-	-	130	0.5
7	503,504	80.5	16.4	3.0	164	0.7
7	505	58.0	41.9	-	400	1.7
7	506	77.5	22.5	-	120	0.5
7	507	69.6	15.0	15.5	214	0.9
7	508	78.8	15.6	5.7	193	0.8
8	101	89.9	6.1	4.0	198	1.4
8	102,103	92.0	3.2	4.8	189	1.3
8	104	90.3	-	9.7	113	0.8
8	105,106	83.4	8.7	8.0	126	0.9
8	201	30.2	61.1	8.6	162	1.1
8	202	57.4	40.5	-	195	1.4
8	203	72.9	27.2	-	206	1.4
8	204	92.7	12.2	7.4	95	0.7
8	205	87.7	29.3	-	130	0.9
8	206	70.7	-	-	58	0.4
8	207,208	95.1	-	4.9	123	0.9

8	301	100.0	-	-	44	0.3
8	302	100.0	-	-	85	0.6
8	303	83.6	-	16.4	67	0.5
8	304	100.0	-	-	49	0.3
8	305	100.0	-	-	147	1.0
8	306	70.5	-	29.5	78	0.5
8	307	83.7	-	16.4	49	0.3
8	308	100.0	-	-	127	0.9
8	309	83.3	16.7	-	66	0.5
8	310	96.0	-	3.9	297	2.1
8	402	98.0	1.9	-	154	1.1
8	403	94.0	5.9	-	388	2.7
8	404	85.1	12.5	2.4	328	2.3
8	405	91.0	-	9.0	89	0.6
8	406	85.1	-	14.9	128	0.9
8	407	93.3	6.7	-	60	0.4
8	408	92.1	6.1	1.8	165	1.2
8	502	100.0	-	-	68	0.5
8	503	93.1	-	6.9	102	0.7
9	504	97.6	-	2.4	124	0.9
8	507,508	98.0	2.0	-	253	1.8
9	101	88.8	4.9	6.3	143	1.0
9	102	87.6	4.8	7.6	105	0.7
9	103	88.2	7.8	3.9	102	0.7
9	104	100.0	-	-	98	0.7
9	105	100.0	-	-	49	0.3
9	106	94.0	2.6	3.4	117	0.8
9	202	80.6	6.0	13.5	134	0.9
9	203	80.2	3.7	16.2	242	1.7
9	205	100.0	-	-	79	0.6
9	206	100.0	-	-	88	0.6
9	208	86.4	8.7	4.9	184	1.3
9	209	89.2	-	10.8	148	1.0
9	210	87.7	2.5	9.9	163	1.1
9	309,310	100.0	-	-	87	0.6
9	311	96.0	4.0	-	101	0.7
9	312	100.0	-	-	36	0.3
9	401	96.0	-	4.0	100	0.7
9	402	94.5	3.0	2.4	165	1.2
9	403,404	94.4	2.2	3.4	230	1.6
9	405	100.0	-	-	93	0.7

9	406	81.2	-	18.8	85	0.6
9	407	94.4	5.6	-	125	0.9
9	501	100.0	-	-	55	0.4
9	502	100.0	-	-	123	0.9
9	503,504	97.2	2.7	-	146	1.0
9	505	100.0	-	-	112	0.8
9	506	95.4	-	4.6	197	1.4
9	507	80.1	6.6	13.2	181	1.3
9	508	83.5	11.9	4.6	109	0.8
10	102	93.0	-	7.0	129	0.9
10	103,104	80.5	10.2	9.3	108	0.8
10	105	86.7	4.4	8.8	90	0.6
10	106	97.8	-	2.3	310	2.2
10	107,108	96.7	3.4	-	118	0.8
10	110	100.0	-	-	106	0.7
10	201	100.0	-	-	58	0.4
10	202-206	96.1	1.3	2.6	311	2.2
10	301-303	92.4	7.6	-	316	2.2
10	304,305	81.2	13.3	5.5	128	0.9
10	306	96.1	-	3.9	103	0.7
10	401	98.2	1.8	-	171	1.2
10	402-406	85.2	10.2	4.7	236	1.7
10	407	88.3	4.1	7.6	171	1.2
10	408	93.4	2.6	3.9	304	2.1
10	501	100.0	-	-	101	0.7
10	502	100.0	-	-	54	0.4
10	503,504	100.0	-	-	132	0.9
10	505	100.0	-	-	203	1.4
10	506	93.2	-	6.8	415	2.9
10	507	97.3	-	2.8	108	0.8
10	508,509	97.0	-	3.0	265	1.9
11	101	100.0	-	-	174	1.2
11	102	95.1	1.8	3.0	164	1.2
11	103-106	98.0	-	2.0	247	1.7
11	108	100.0	-	-	88	0.6
11	109-111	100.0	-	-	142	1.0
11	112	100.0	-	-	199	1.4

11	113	96.5	-	3.6	343	2.4
11	202	89.8	1.7	8.5	117	0.8
11	203-206	85.2	6.3	8.5	189	1.3
11	207	100.0	-	-	121	0.8
11	209,210	95.7	4.3	-	94	0.7
11	211	87.7	6.3	5.9	270	1.9
11	212	70.2	-	29.8	94	0.7
12	104-111	74.5	20.2	5.2	1431	11.2
12	112	76.5	23.6	-	174	1.4
12	113	83.8	16.2	-	579	4.5
12	114,115	93.4	6.6	-	258	2.0
12	116	90.7	-	9.3	54	0.4
12	117	71.1	28.9	-	225	1.8
12	201	88.4	11.7	-	240	1.9
12	202	94.6	2.7	2.7	149	1.2
12	203	94.6	-	5.4	149	1.2
12	204	93.6	2.4	4.0	125	1.0
12	205	96.2	3.8	-	79	0.6
12	206	92.1	-	7.9	89	0.7
12	301-403	87.8	3.2	9.0	221	1.7
12	404	77.1	13.4	9.4	127	1.0
12	405,406	93.5	-	6.5	77	0.6
12	407	100.0	-	-	55	0.4
12	408,501-503	93.1	6.9	-	189	1.5
12	504	100.0	-	-	86	0.7
12	505	100.0	-	-	61	0.5
12	506	97.8	-	2.1	140	1.1
12	507	90.5	-	9.4	127	1.0
13	101	78.7	20.5	0.9	1368	10.7
13	102	73.1	24.3	2.6	773	6.0
13	107	100.0	-	-	76	0.6
13	108	97.1	-	2.9	240	1.9
13	109	97.9	0.6	1.6	510	4.0
13	201	95.3	3.1	1.5	259	2.0
13	202,203	100.0	-	-	74	0.6
13	206-208	88.3	-	11.7	77	0.6
13	301	97.4	2.6	-	152	1.2
13	302	100.0	-	-	49	0.4
13	303,304	96.0	1.1	2.9	273	2.1

13	305,306	91.4	4.5	4.0	176	1.4
14	102	92.4	5.6	2.0	197	1.5
14	103	83.5	12.8	3.8	157	1.2
14	104-107	89.7	10.3	-	136	1.1
14	108	100.0	-	-	96	0.8
14	109	96.5	-	3.5	114	0.9
14	110	90.8	-	9.2	196	1.5
14	111	86.9	-	13.1	61	0.5
14	111	100.0	-	-	72	0.6
14	112	100.0	-	-	26	0.2
14	201-203	80.0	16.4	3.6	110	0.9
14	204	93.4	6.7	-	60	0.5
14	205-208	85.1	11.3	3.5	141	1.1
14	301	75.7	17.1	7.1	169	1.3
14	302	67.6	28.5	3.9	179	1.4
14	303	76.4	18.4	5.2	174	1.4
14	304	96.6	3.4	-	117	0.9
14	305	83.9	13.3	2.8	354	2.8
14	306	92.4	3.6	4.0	223	1.7
14	401	91.8	4.7	3.5	85	0.7
14	402	100.0	-	-	110	0.9
14	403	70.0	-	30.0	90	0.7
14	405	96.6	2.2	1.2	412	3.2
14	406	100.0	-	-	176	1.4
14	407	91.5	6.4	2.1	141	1.1
14	501,502	100.0	-	-	60	0.5
14	503	94.7	5.3	-	94	0.7
14	504	100.0	-	-	112	0.9
14	505,506	93.2	-	6.8	117	0.9
14	507-511	90.0	-	-	151	1.2
15	101	61.2	38.8	-	49	0.3
15	102	100.0	-	-	131	0.8
15	103	75.2	21.8	3.0	101	0.6
15	104	67.6	28.5	3.9	204	1.2
15	105	69.4	30.6	-	134	0.8
15	106	48.1	51.9	-	131	0.8
15	107	68.0	28.2	3.9	103	0.6

15	201	35.3	64.6	-	260	1.6
15	202,203	60.1	34.9	3.3	306	1.8
15	204	57.3	42.8	-	117	0.7
15	205	60.0	40.0	-	115	0.7
15	206	31.5	68.4	-	92	0.6
15	301	83.6	16.4	-	55	0.3
15	302,303	42.6	52.2	5.1	136	0.8
15	304	62.0	35.4	2.6	195	1.2
15	305	62.9	33.9	3.2	380	2.3
15	306	67.5	30.6	2.0	203	1.2
15	401	77.5	16.0	6.5	213	1.3
15	402	80.8	19.2	-	26	0.2
15	403-405	88.5	6.1	5.4	131	0.8
15	406	67.3	32.8	-	58	0.3
15	407	65.5	34.5	-	116	0.7
15	408	69.9	25.9	4.2	216	1.3
15	409	79.2	17.6	3.1	193	1.2
15	410	69.1	30.9	-	152	0.9
15	501	75.7	13.0	11.3	177	1.1
15	502	77.2	19.1	3.7	517	3.1
15	503	42.5	67.4	-	355	2.1
15	504	61.2	28.3	10.5	152	0.9
15	505	73.7	24.2	2.1	240	1.4
15	506	63.9	36.1	-	335	2.0
15	507	62.2	37.8	-	251	1.5
15	601	60.9	39.0	-	128	0.8
15	602	66.4	33.6	-	137	0.8
15	603	81.0	19.1	-	283	1.7
15	604	82.5	15.1	2.4	246	1.5
15	605	71.5	28.5	-	179	1.1
15	606	78.8	19.6	1.6	306	1.8
15	607	88.6	11.4	-	201	1.2
15	701	77.7	18.5	3.8	292	1.8
15	702	75.6	17.8	6.7	90	0.5
15	703	70.0	20.3	9.8	133	0.8
15	704	50.0	46.4	3.6	112	0.7
15	705	71.6	24.8	3.6	137	0.8
15	706	58.4	34.1	7.6	226	1.4
15	801	90.9	9.1	-	99	0.6
15	802	83.3	11.9	4.8	84	0.5

15	803	72.2	27.8	-	115	0.7
15	804,805	85.0	14.9	-	207	1.2
15	806	83.4	16.7	-	180	1.1
15	807,808	87.9	6.9	5.2	116	0.7
15	809	100.0	-	-	80	0.5
16	101	70.3	27.1	2.7	148	0.9
16	102	73.9	2.1	5.2	876	5.3
16	103	92.9	2.8	4.3	211	1.3
16	104	80.3	5.9	13.8	153	0.9
16	105	71.7	25.2	3.2	155	0.9
16	106,201	72.4	17.2	10.2	116	0.7
16	202	78.5	2.4	19.2	167	1.0
16	203	74.5	24.1	1.4	212	1.3
16	204	70.9	28.3	0.8	378	2.3
16	205,206	61.8	38.2	-	301	1.8
16	301	67.4	25.0	7.6	536	3.2
16	302	63.3	22.2	14.6	316	1.9
16	303	60.7	33.2	6.0	298	1.8
16	304	64.8	23.9	11.3	355	2.1
16	305	78.8	18.9	1.0	402	2.4
16	306	70.9	24.1	5.1	337	2.0
16	401	57.2	30.4	12.4	201	1.2
16	402	37.3	61.1	1.7	231	1.4
16	403	80.5	15.6	3.9	128	0.8
16	404	75.5	19.4.	5.1	98	0.6
16	405,406	76.6	17.1	6.3	158	1.0
16	501	89.5	10.5	-	76	0.5
16	502	85.8	14.1	-	92	0.6
16	503	62.5	37.5	-	200	1.2
16	504	57.8	39.7	2.5	199	1.2
16	505,506	84.3	13.4	2.3	620	3.7
16	602	77.7	13.4	9.0	112	0.7
16	603	66.6	30.8	2.6	117	0.7
16	604	-	-	-	-	-
16	605,606	81.4	16.5	2.1	188	1.1
17	101,102	73.6	15.9	10.6	265	1.7
17	104-106	60.8	12.8	25.9	968	6.3
17	405-407	70.8	18.7	10.5	171	1.1

18	102,103	97.0	-	3.1	131	0.9
18	104,105	71.7	16.7	11.6	120	0.8
18	106	93.6	-	6.3	172	1.1
18	107,201	76.4	8.8	14.7	353	2.3
18	202	77.3	5.3	17.3	75	0.5
18	203	45.4	18.0	36.7	335	2.2
18	204	51.6	20.8	27.7	289	1.9
18	207	67.3	32.7	-	208	1.4
18	208	82.9	11.4	5.7	228	1.5
18	209	65.1	11.6	23.2	189	1.2
18	301	60.2	3.5	28.4	342	2.2
18	302-307	94.7	1.1	4.3	375	2.4
18	309-402	83.5	7.8	8.7	551	3.6
18	403	73.7	17.8	8.5	388	2.5
18	404	69.1	25.6	5.2	324	2.1
18	405	79.9	7.1	13.0	169	1.1
18	406	86.9	6.1	7.1	99	0.6
18	407	59.9	13.2	27.0	152	1.0
19	101,102	100.0	-	-	92	0.6
19	103,104	100.0	-	-	76	0.5
19	105	95.4	-	4.6	130	0.8
19	106	95.4	-	4.7	107	0.7
19	107	100.0	-	-	79	0.5
19	108	97.0	-	3.1	130	0.8
19	201	94.2	5.8	-	139	0.9
19	202	89.8	4.6	5.6	108	0.7
19	203	59.7	23.9	16.4	67	0.4
19	204	96.0	1.1	3.0	271	1.8
19	205,206	64.0	12.7	23.3	236	1.5
19	207	95.7	2.3	1.9	213	1.4
19	301	97.4	2.6	-	191	1.2
19	302	90.9	6.3	2.8	143	0.9
19	303	100.0	-	-	223	1.5
19	304	96.4	3.7	-	109	0.7
19	305	97.5	-	2.5	160	1.0
19	306	90.1	-	6.9	131	0.9
19	307	97.2	2.8	-	144	0.9
19	308	86.2	6.9	6.9	58	0.4
19	401	86.7	-	13.3	60	0.4
19	402,403	60.3	-	39.6	63	0.4

19	404	72.9	6.2	20.8	159	1.0
19	405	86.2	4.3	9.5	116	0.8
19	406	81.0	15.8	3.2	158	1.0
19	407	87.3	1.6	11.2	306	2.0
19	408	100.0	-	-	60	0.4
19	409	84.5	7.0	8.5	142	0.9
19	410	87.3	9.7	3.0	267	1.7
19	411	70.5	4.2	25.3	95	0.6
19	501	93.0	7.0	-	86	0.6
19	502,503	76.5	17.3	6.1	213	1.4
19	505	84.8	3.4	11.8	145	0.9
19	506	84.0	4.5	11.5	201	1.3
19	507,508	94.1	-	5.9	51	0.3
20	101	86.3	4.9	8.8	510	3.3
20	102	79.3	4.8	15.8	165	1.1
20	103	88.2	3.5	8.2	170	1.1
20	104	94.7	4.2	1.1	380	2.5
20	105	93.3	6.7	-	300	2.0
20	106	87.2	-	12.9	101	0.7
20	107	93.2	6.9	-	131	0.9
20	108	94.0	-	6.1	66	0.4
20	201	89.3	4.8	5.9	290	1.9
20	202	77.1	-	22.9	109	0.7
20	203	91.9	4.7	3.5	86	0.6
20	204	88.4	2.1	9.5	190	1.2
20	205	80.3	-	19.7	71	0.5
20	206	70.6	-	29.5	78	0.5
20	207	100.0	-	-	67	0.4
20	208,301	97.4	2.6	-	193	1.3
20	302-304	82.5	8.1	9.5	74	0.5
21	105	100.0	-	-	90	0.6
21	106,107	94.6	-	5.4	221	1.4
21	108,109	100.0	-	-	113	0.7
21	110,111	100.0	-	-	71	0.5
21	112	82.3	8.6	9.1	198	1.3
21	201,202	88.7	3.5	7.8	115	0.8
21	203	88.2	6.7	5.2	211	1.4

21	204	100.0	-	-	42	0.3
21	205	77.3	9.3	13.3	75	0.5
21	206-208	65.2	25.1	9.7	374	2.4
22	303	88.3	-	11.7	137	2.3
22	304,305	95.5	3.4	1.1	378	6.3
22	306	-	-	-	-	-
22	307,308	84.6	12.3	3.1	130	2.2
22	310	81.4	14.8	3.7	108	1.8
22	406	89.6	5.2	55.2	153	2.5
22	407	96.9	3.1	-	130	2.2
22	408	92.5	-	7.5	93	1.5
22	409	74.7	16.5	8.7	182	3.0
23	102	80.5	17.6	1.9	159	2.6
23	103	100.0	-	-	83	1.4
23	104	100.0	-	-	303	5.0
23	105,106	94.7	5.4	-	112	1.9
23	107	86.3	-	13.7	102	1.7
23	108	100.0	-	-	78	1.3
23	109	74.2	-	25.8	93	1.5
23	110	89.9	10.1	-	109	1.8
23	111	100.0	-	-	127	2.1
23	204-207	87.9	7.8	4.3	116	1.9
23	301	68.5	-	31.5	165	2.7
23	302	69.1	-	30.9	178	3.0
23	303	76.7	18.5	4.7	189	3.1
23	304	70.1	7.7	22.2	117	1.9
23	305	89.4	-	10.6	142	2.4
23	306	94.0	-	6.0	134	2.2
23	307	73.0	14.3	12.7	181	3.0
23	401	83.8	-	16.2	117	1.9
23	402	91.5	-	8.5	153	2.5
23	404	100.0	-	-	122	2.0
23	405	100.0	-	-	109	1.8
23	406	82.7	5.6	11.8	144	2.4
23	407	91.6	-	8.4	95	1.6

23	408	100.0	-	-	117	1.9
23	501	77.6	-	22.4	201	3.3
23	502	74.7	9.3	16.0	194	3.2
23	505,506	100.0	-	-	220	3.6
23	507	99.0	-	-	160	2.7
23	508	76.7	3.6	19.6	227	5.4
23	509	90.6	7.2	2.2	138	2.3
23	510, 513	97.9	-	2.1	233	3.9
24	102,103	88.0	-	12.0	100	0.6
24	104	100.0	-	-	138	0.8
24	105	86.2	8.7	5.0	218	1.3
24	106	75.4	15.8	-	114	0.7
24	107	84.8	-	10.2	79	0.5
24	108	100.0	-	-	42	0.2
24	109	100.0	-	-	150	0.9
24	110,111	100.0	-	-	227	1.3
24	201	88.4	-	11.6	95	0.5
24	202	89.9	-	10.2	177	1.0
24	203	98.4	1.6	-	243	1.4
24	204	98.3	-	1.8	228	1.3
24	205	84.6	6.6	8.8	91	0.5
24	206	100.0	-	-	229	1.3
24	207	100.0	-	-	172	1.0
24	208	100.0	-	-	104	0.6
24	209	97.6	2.4	-	127	0.7
24	301	93.0	2.1	4.8	187	1.1
24	302	100.0	-	-	212	1.2
24	303	92.0	-	8.0	176	1.0
24	304	92.4	-	7.6	145	0.8
24	305	71.2	24.7	4.1	295	1.7
24	306	100.0	-	-	123	0.7
24	308,309	81.2	5.6	13.2	356	2.0
24	310	83.1	16.9	-	77	0.4
24	401	95.6	-	4.4	227	1.3
24	402	79.4	11.8	8.8	136	0.8
24	403	100.0	-	-	43	0.2
24	404	81.5	7.4	11.1	189	1.1
24	405	69.2	9.4	21.4	117	0.7
24	505-507	96.6	3.4	-	118	0.7

25	101	73.6	3.4	23.0	87	0.5
25	102	100.0	-	-	90	0.5
25	103	94.4	-	5.6	71	0.4
25	104	75.6	-	24.4	82	0.5
25	105,106	85.1	14.9	-	67	0.4
25	204	68.8	31.2	-	93	0.5
25	205	88.9	10.1	1.1	475	2.7
25	301	100.0	-	-	141	0.8
25	302	94.8	-	5.1	78	0.4
25	303,304	97.1	3.0	-	101	0.6
25	305	91.2	-	8.8	137	0.8
25	306	97.6	2.4	-	126	0.7
25	308-310	100.0	-	-	131	0.8
25	311	90.2	6.1	3.7	82	0.5
25	312	100.0	-	-	116	0.7
25	313	95.0	5.0	-	140	0.8
25	314	98.6	-	1.4	217	1.2
25	401	98.7	-	1.4	293	1.7
25	402-404	100.0	-	-	212	1.2
25	405	94.4	-	5.6	125	0.7
25	406	100.0	-	-	125	0.7
25	407	100.0	-	-	131	0.8
25	501	100.0	-	-	45	0.3
25	502,503	93.4	6.6	-	227	1.3
25	504	100.0	-	-	90	0.5
25	505	96.9	-	3.1	159	0.9
25	506	100.0	-	-	156	0.9
25	507,605	100.0	-	-	170	1.0
25	608,609	97.0	-	3.0	298	1.7
25	610	97.3	-	2.7	149	0.9
25	611,612	90.2	4.9	4.9	82	0.5
25	613-616	94.1	5.9	-	136	0.8
26	101	86.8	8.8	4.4	114	0.7
26	102	95.5	3.0	1.5	263	1.5
26	103,104	100.0	-	-	118	0.7
26	105	98.5	-	1.6	255	1.5

26	106	94.6	1.2	4.3	258	1.5
26	107,108	95.3	2.6	2.1	191	1.1
26	201,202	100.0	-	-	168	1.0
26	203,204	77.8	17.0	5.2	388	2.2
26	205	58.3	36.1	5.6	576	3.3
26	208	87.4	3.6	9.0	254	1.5
26	209	100.0	-	-	332	1.9
26	210	100.0	-	-	47	0.3
26	211	94.6	-	5.3	75	0.4
26	214	100.0	-	-	206	1.2
26	301,302	96.1	-	4.0	101	0.6
26	303,304	100.0	-	-	114	0.7
26	305	96.1	1.9	1.9	207	1.2
26	306	100.0	-	-	292	1.7
26	307-309	98.0	-	2.0	450	2.6
26	401	100.0	-	-	141	0.8
26	402	95.4	4.6	-	87	0.5
26	403	100.0	-	-	124	0.7
26	404	100.0	-	-	97	0.6
26	405	96.3	3.7	-	109	0.6
26	407	100.0	-	-	85	0.5
26	408	90.2	9.8	-	82	0.5
26	409	100.0	-	-	154	0.9
26	410	97.7	-	2.3	130	0.7
26	411	92.7	-	7.2	220	1.3
26	412	100.0	-	-	73	0.4
26	413	100.0	-	-	350	2.0
26	502	100.0	-	-	80	0.5
26	503-509	87.0	10.5	2.5	200	1.1
26	510	93.2	6.8	-	74	0.4
26	511-513	100.0	-	-	168	1.0
26	514	97.0	2.3	0.6	477	2.7
26	515,516	100.0	-	-	96	0.6
26	517	82.3	7.0	10.7	215	1.2
26	518	100.0	-	-	108	0.6
26	519	97.2	2.8	-	393	2.3

27	103,104	82.4	3.2	14.5	187	1.9
27	105	80.8	1.6	17.6	485	4.9
27	106-108	91.9	-	8.1	136	1.4
27	109	76.0	-	24.0	75	0.8
27	110	100.0	-	-	117	1.2
27	111	92.0	-	8.0	137	1.4
27	112-115	100.0	-	-	131	1.3
27	117, 202-207	82.8	-	17.2	221	2.2
27	208	100.0	-	-	93	0.9
27	209	100.0	-	-	73	0.7
27	210	92.4	-	7.6	118	1.2
27	211	96.4	1.2	2.4	251	2.5
27	212,213	96.9	-	3.1	130	1.3
27	214,215	100.0	-	-	220	2.2
27	216,217	100.0	-	-	116	1.2
27	218	100.0	-	-	60	0.6
27	219	100.0	-	-	116	1.2
27	220	100.0	-	-	118	1.2
27	221	95.6	1.5	2.9	273	2.7
27	401	98.0	-	2.0	149	1.5
27	402	100.0	-	-	91	0.9
27	403	97.7	-	2.2	134	1.3
27	404	95.6	4.4	-	135	1.4
27	405,406	100.0	-	-	137	1.4
27	407	100.0	-	-	119	1.2
27	408	95.9	-	4.1	122	1.2
27	409	95.5	4.5	-	201	2.0
27	410	91.4	-	8.6	58	0.6
27	411	99.0	-	-	82	0.8
27	412,413	100.0	-	-	85	0.9
27	414,419	100.0	-	-	192	1.9
28	101	100.0	-	-	659	6.6
28	103-105	100.0	-	-	106	1.1
28	107,108	96.8	-	3.2	156	1.6
28	109	89.4	-	10.6	85	0.9
28	110-112	96.2	1.9	1.9	210	2.1

28	113	96.6	-	3.3	178	1.8
28	114	100.0	-	-	79	0.8
28	115,116	81.1	-	18.8	117	1.2
28	117	100.0	-	-	112	1.1
28	118	100.0	-	-	70	0.7
28	119,201	100.0	-	-	81	0.8
28	202	100.0	-	-	120	1.2
28	203	100.0	-	-	143	1.4
28	204,205	100.0	-	-	137	1.4
28	206	100.0	-	-	123	1.2
28	207,209	100.0	-	-	125	1.3
28	210	100.0	-	-	92	0.9
28	211	100.0	-	-	107	1.1
28	212	98.2	-	1.8	221	2.2
28	301	97.9	2.1	-	237	2.4
28	302	100.0	-	-	85	0.9
28	304	100.0	-	-	121	1.2
28	305	100.0	-	-	142	1.4
28	306,307	100.0	-	-	143	1.4
28	308-310	97.5	-	2.4	164	1.7
28	311	100.0	-	-	50	0.5
28	312	100.0	-	-	112	1.1
28	313,314	100.0	-	-	89	0.9
28	315,316	94.9	-	5.1	97	1.0
28	317	86.8	13.2	-	159	1.6
28	318-321	100.0	-	-	117	1.2
28	322	100.0	-	-	98	1.0
28	404,405	97.0	3.0	-	135	1.4
28	406,407	95.9	-	4.1	97	1.0
28	411	94.5	1.6	3.9	308	3.1
28	412,413	100.0	-	-	268	2.7
28	414-416	100.0	-	-	32	0.3
Total		85.33	9.77	4.88	116,046	100.0

Source: Special Census, New Haven City, 1967.
Note: Tabulation based on 25% data.

Number of Cars per Dwelling Unit by Tract

New Haven City - 1967

Tract	None	Percent	One	Percent	Two	Percent	Three	Percent	Four	Percent	NR	Percent	Total	Percent
1	423	56.2	114	15.2	15	2.0	4	0.5	-	-	196	26.1	752	100
2	24	49.0	14	28.6	-	-	-	-	4	8.2	7	14.3	49	100
3	396	30.0	448	34.0	90	6.8	21	1.6	4	0.3	360	27.2	1319	100
4	254	21.9	541	46.7	167	14.4	14	1.2	6	0.5	177	15.3	1159	100
5	512	27.9	729	39.8	169	9.2	5	0.3	9	0.5	409	22.3	1833	100
6	899	34.4	838	32.1	178	6.8	25	1.0	-	-	671	25.7	2611	100
7	1470	40.5	1069	29.4	140	3.9	14	0.4	3	0.1	937	25.8	3633	100
8	450	24.9	682	37.8	197	10.9	23	1.3	17	0.9	435	24.1	1804	100
9	468	23.2	980	48.5	266	13.2	21	1.0	-	-	284	14.1	2019	100
10	252	15.0	734	43.6	482	28.7	45	2.7	4	0.2	165	9.8	1682	100
11	25	2.5	401	40.6	439	44.4	80	8.1	7	0.7	36	3.6	988	100
12	279	14.7	1079	56.8	383	20.2	38	2.0	-	-	120	6.3	1899	100
13	315	20.8	686	45.4	241	15.9	17	1.1	-	-	252	16.7	1511	100
14	222	12.9	767	44.6	396	23.1	57	3.3	3	0.2	273	15.9	1718	100
15	875	29.0	1154	38.3	336	11.1	34	1.1	17	0.6	598	19.8	3014	100
16	1036	42.5	774	31.7	151	6.2	9	0.4	-	-	469	19.2	2439	100
17	159	43.6	144	39.5	31	8.5	2	0.5	-	-	29	7.9	365	100
18	229	13.9	948	57.4	232	14.0	26	1.6	-	-	217	13.1	1652	100
19	475	20.6	1062	46.1	321	13.9	43	1.9	-	-	402	17.5	2303	100
20	539	33.0	595	37.0	130	8.1	15	0.9	3	0.2	334	20.8	1607	100
21	305	38.9	199	25.4	41	5.2	12	1.5	-	-	228	29.0	785	100
22	303	38.6	338	43.1	47	6.0	14	1.8	5	0.6	77	9.8	784	100
23	451	25.4	668	37.7	168	9.5	42	2.4	4	0.2	440	24.8	1773	100
24	509	27.2	741	39.6	229	12.2	16	0.9	-	-	376	20.1	1871	100
25	558	29.3	793	41.6	279	14.6	39	2.0	4	0.2	233	12.2	1906	100
26	267	10.8	1093	44.3	516	20.9	85	3.4	19	0.8	485	19.7	2465	100
27	189	10.6	846	47.4	398	22.3	36	2.0	8	0.4	306	17.2	1783	100
28	122	6.9	822	46.7	597	33.9	71	4.0	8	0.5	142	8.1	1762	100
Total	11,997	25.3	19,259	40.5	6,639	14.0	808	1.7	125	.26	8,658	18.23	47,486	100

Source: Special Census, New Haven City, 1967.

Note: Tabulation based on 25% data.

Number of Cars Per Dwelling Unit by Tract and Block

New Haven City - 1967

Tract and Block	None	Percent	One	Percent	Two	Percent	Three	Percent	Four	Percent	NR	Percent	Total	Percent
1 101-103	84	61.8	22	16.2	9	6.6	-	-	-	-	21	15.4	136	100
1 104-109	87	58.4	29	19.5	-	-	4	2.7	-	-	29	19.5	149	100
1 110	29	70.7	5	12.2	-	-	-	-	-	-	7	17.1	41	100
1 111-132	223	52.3	58	13.6	6	1.4	-	-	-	-	139	32.6	426	100
2 110	11	44.0	12	48.0	-	-	-	-	-	-	2	8.0	25	100
3 201-202	8	13.3	28	46.7	5	8.3	-	-	-	-	19	31.7	60	100
3 203	8	29.6	-	-	-	-	-	-	-	-	19	70.4	27	100
3 204,208	3	8.6	12	34.3	4	11.4	-	-	-	-	16	45.7	35	100
3 209	4	13.8	4	13.8	-	-	-	-	-	-	21	72.4	29	100
3 210	23	48.9	7	14.9	-	-	-	-	-	-	17	36.2	47	100
3 211	23	21.9	13	12.4	3	2.9	5	4.8	-	-	61	58.1	105	100
3 304	46	43.0	18	16.8	15	14.0	4	3.7	-	-	24	22.4	107	100
3 306	-	-	23	71.9	-	-	-	-	-	-	9	28.1	32	100
3 307	33	61.1	-	-	5	9.3	2	3.7	-	-	14	25.9	54	100
3 308	25	47.2	21	39.6	-	-	-	-	-	-	7	13.2	53	100
3 401	4	5.6	17	23.9	4	5.6	-	-	-	-	46	64.8	71	100
3 402,404	10	18.5	12	22.2	6	11.1	-	-	-	-	26	48.1	54	100
3 405	18	48.6	17	45.9	2	5.4	-	-	-	-	-	-	37	100
3 406	44	44.9	32	32.7	5	5.1	6	6.1	-	-	11	11.2	98	100
3 407	14	21.5	29	44.6	7	10.8	4	6.2	-	-	11	16.9	65	100
3 408,409	8	15.4	37	71.2	3	5.8	-	-	4	7.7	-	-	52	100
3 501	33	32.7	42	41.6	5	5.0	-	-	-	-	21	20.8	101	100
3 502	11	26.8	24	58.5	4	9.8	-	-	-	-	2	4.9	41	100
3 503	42	47.2	28	31.5	10	11.2	-	-	-	-	9	10.1	89	100
3 504,505	10	12.5	43	53.7	4	5.0	-	-	-	-	23	28.7	80	100
3 506,507	7	17.1	30	73.2	-	-	-	-	-	-	4	9.8	41	100
3 508	18	54.5	11	33.3	4	12.1	-	-	-	-	-	-	33	100

4 105	4	8.3	15	31.2	19	39.6	-	-	-	-	10	20.8	48	100
4 106,107	3	4.1	42	56.8	14	18.9	-	-	-	-	15	20.3	74	100
4 108	4	10.5	25	65.8	9	23.7	-	-	-	-	-	-	38	100
4 109	8	14.0	26	45.6	7	12.3	3	5.3	-	-	13	22.8	57	100
4 110	4	9.5	28	66.7	3	7.1	-	-	-	-	7	16.7	42	100
4 111	11	21.2	24	46.2	7	13.5	2	3.8	-	-	8	15.4	52	100
4 112	5	10.0	28	56.0	3	6.0	-	-	-	-	14	28.0	50	100
4 113	11	23.4	23	48.9	-	-	-	-	-	-	13	27.7	47	100
4 114,115	7	25.9	10	37.0	7	25.9	-	-	3	11.1	-	-	27	100
4 203	12	24.0	30	60.0	8	16.0	-	-	-	-	-	-	50	100
4 204	-	-	27	87.1	-	-	-	-	-	-	4	12.9	31	100
4 205	14	33.3	25	59.5	3	7.1	-	-	-	-	-	-	42	100
4 302,303	45	39.5	46	40.4	20	17.5	-	-	-	-	3	2.6	114	100
4 304,305	22	17.2	73	57.0	16	12.5	5	3.9	-	-	12	9.4	128	100
4 306	7	15.9	19	43.2	9	20.5	-	-	-	-	9	20.5	44	100
4 307	22	38.6	13	22.8	13	22.8	-	-	-	-	9	15.8	57	100
4 308	15	23.8	17	27.0	9	14.3	-	-	-	-	22	34.9	63	100
4 309	8	24.2	4	12.1	-	-	-	-	-	-	21	63.6	33	100
5 101	17	38.6	11	25.0	-	-	-	-	-	-	16	36.4	44	100
5 102,103	14	28.6	31	63.3	4	8.2	-	-	-	-	-	-	49	100
5 104	10	13.0	39	50.6	17	22.1	-	-	5	6.5	6	7.8	77	100
5 105	12	25.0	15	31.2	4	8.3	-	-	-	-	17	35.4	48	100
5 106	23	28.4	10	12.3	12	14.8	-	-	-	-	36	44.4	81	100
5 107	14	41.2	6	17.6	-	-	-	-	-	-	14	41.2	34	100
5 108	18	31.6	39	68.4	-	-	-	-	-	-	-	-	57	100
5 109	9	28.1	13	40.6	5	15.6	-	-	-	-	5	15.6	32	100

5 201	26	35.1	30	40.5	8	10.8	-	-	-	-	10	13.5	74	100
5 202	18	46.2	13	33.3	8	20.5	-	-	-	-	-	-	39	100
5 203	19	43.2	18	40.9	3	6.8	-	-	-	-	4	9.1	44	100
5 204	14	24.6	28	49.1	-	-	-	-	-	-	15	26.3	57	100
5 205	8	26.7	22	73.3	-	-	-	-	-	-	-	-	30	100
5 206	25	39.1	26	40.6	4	6.2	-	-	-	-	9	14.1	64	100
5 301	14	19.4	45	62.5	7	9.7	-	-	-	-	6	8.3	72	100
5 302	18	23.4	55	71.4	-	-	-	-	-	-	4	5.2	77	100
5 303	14	13.1	58	54.2	9	8.4	-	-	-	-	26	24.3	107	100
5 304	21	22.3	40	42.6	18	19.1	-	-	-	-	15	16.0	94	100
5 305	45	48.4	34	36.6	10	10.8	-	-	4	4.3	-	-	93	100
5 306	12	21.4	24	42.9	17	30.4	-	-	-	-	3	5.4	56	100
5 401	18	56.2	10	31.2	4	12.5	-	-	-	-	-	-	32	100
5 402-405	6	16.2	14	37.8	5	13.5	-	-	-	-	12	32.4	37	100
5 501,502	16	28.1	8	14.0	-	-	-	-	-	-	33	57.9	57	100
5 503-506	-	-	24	51.1	-	-	-	-	-	-	23	48.9	47	100
5 507	29	33.7	15	17.4	15	17.4	-	-	-	-	27	31.4	86	100
5 508	13	31.7	22	53.7	6	14.6	-	-	-	-	-	-	41	100
5 509	33	49.3	15	22.4	-	-	-	-	-	-	19	28.4	67	100
5 510	9	18.7	26	54.2	4	8.3	-	-	-	-	9	18.7	48	100
5 511-513	12	23.1	11	21.2	-	-	-	-	-	-	29	55.8	52	100
5 514	14	38.9	7	19.4	-	-	-	-	-	-	15	41.7	36	100
5 515	3	7.0	17	39.5	-	-	-	-	-	-	23	53.5	43	100
5 516	8	13.8	3	5.2	9	15.5	5	8.6	-	-	33	56.9	58	100

6 101	45	36.0	50	40.0	-	-	-	-	-	-	30	24.0	125	100
6 102	46	73.0	4	6.3	4	6.3	-	-	-	-	9	14.3	63	100
6 103	43	48.3	14	15.7	4	4.5	-	-	-	-	28	31.5	89	100
6 104	30	27.0	26	23.4	10	9.0	8	7.2	-	-	37	33.3	111	100
6 105	36	50.7	9	12.7	7	9.9	-	-	-	-	19	26.8	71	100
6 106	35	38.0	42	45.7	-	-	-	-	-	-	15	16.3	92	100
6 107	33	34.0	44	45.4	4	4.1	-	-	-	-	16	16.5	97	100
6 201	12	23.1	24	46.2	9	17.3	-	-	-	-	7	13.5	52	100
6 202	16	30.2	25	47.2	8	15.1	-	-	-	-	4	7.5	53	100
6 203	7	10.1	26	37.7	14	20.3	-	-	-	-	22	31.9	69	100
6 204	9	18.4	23	46.9	8	16.3	-	-	-	-	9	18.4	49	100
6 205	53	39.3	44	32.6	9	6.7	-	-	-	-	29	21.5	135	100
6 206	30	57.7	22	42.3	-	-	-	-	-	-	-	-	52	100
6 301	32	30.5	37	35.2	4	3.8	-	-	-	-	32	30.5	105	100
6 302	51	41.5	24	19.5	5	4.1	3	2.4	-	-	40	32.5	123	100
6 303	50	42.7	26	22.2	8	6.8	4	3.4	-	-	29	24.8	117	100
6 304	8	11.1	15	20.8	4	5.6	-	-	-	-	45	62.5	72	100
6 306,307	10	19.2	10	19.2	-	-	-	-	-	-	32	61.5	52	100
6 308	12	28.6	4	9.5	3	7.1	-	-	-	-	23	54.8	42	100
6 309	3	4.9	16	26.2	4	6.6	-	-	-	-	38	62.3	61	100
6 310	35	46.1	18	23.7	-	-	-	-	-	-	23	30.3	76	100
6 311	40	54.1	13	17.6	8	10.8	-	-	-	-	13	17.6	74	100
6 312	18	20.0	40	44.4	-	-	-	-	-	-	32	35.6	90	100
6 401	30	22.9	53	40.5	11	8.4	-	-	-	-	37	28.2	131	100
6 402	80	50.6	59	37.3	6	3.8	-	-	-	-	13	8.2	158	100
6 403	26	21.5	54	44.6	19	15.7	7	5.8	-	-	15	12.4	121	100
6 404	23	50.0	15	32.6	3	6.5	-	-	-	-	5	10.9	46	100
6 405	25	30.1	38	45.8	6	7.2	-	-	-	-	14	16.9	83	100

6 406	18	19.1	36	38.3	16	17.0	3	3.2	-	-	21	22.3	94	100
6 407,408	32	45.1	23	32.4	-	-	-	-	-	-	16	22.5	71	100
7 101	47	71.2	14	21.2	5	7.6	-	-	-	-	-	-	66	100
7 102	41	45.6	25	27.8	6	6.7	-	-	-	-	18	20.0	90	100
7 103	27	37.0	34	46.6	4	5.5	-	-	-	-	8	11.0	73	100
7 105	19	25.7	20	27.0	-	-	-	-	-	-	35	47.3	74	100
7 106	79	70.5	9	8.0	-	-	-	-	-	-	24	21.4	112	100
7 107	169	50.3	88	26.2	-	-	5	1.5	-	-	74	22.0	336	100
7 108	56	45.2	59	47.6	-	-	-	-	-	-	9	7.3	124	100
7 302	119	53.4	49	22.0	-	-	-	-	-	-	55	24.7	223	100
7 303	26	25.5	23	22.5	-	-	-	-	-	-	53	52.0	102	100
7 305	93	58.1	12	7.5	-	-	-	-	-	-	55	34.4	160	100
7 306	8	16.3	7	14.3	-	-	-	-	-	-	34	69.4	49	100
7 307	47	49.5	12	12.6	-	-	-	-	3	3.2	33	34.7	95	100
7 308	11	13.4	-	-	-	-	-	-	-	-	71	86.6	82	100
7 309	38	30.4	51	40.8	4	3.2	9	7.2	-	-	23	18.4	125	100
7 403	38	33.9	39	34.8	4	3.6	-	-	-	-	31	27.7	112	100
7 404	39	39.4	31	31.3	-	-	-	-	-	-	29	29.3	99	100
7 405	-	-	11	29.7	-	-	-	-	-	-	26	70.3	37	100
7 406	-	-	19	63.3	-	-	-	-	-	-	11	36.7	30	100
7 407,408	2	5.4	26	70.3	-	-	-	-	-	-	9	24.3	37	100
7 501	31	42.5	15	20.5	21	28.8	-	-	-	-	6	8.2	73	100
7 502	25	36.2	18	26.1	4	5.8	-	-	-	-	22	31.9	69	100
7 503,504	17	26.2	7	10.8	8	12.3	-	-	-	-	33	50.8	65	100
7 505	35	33.3	26	24.8	16	15.2	-	-	-	-	28	26.7	105	100
7 506	17	30.9	24	43.6	3	5.5	-	-	-	-	11	20.0	55	100
7 507	77	68.1	19	16.8	-	-	-	-	-	-	17	15.0	113	100
7 508	44	35.8	51	41.5	24	19.5	-	-	-	-	4	3.3	123	100
8 101	27	42.9	15	23.8	4	6.3	-	-	-	-	17	27.0	63	100.

8 102,103	10	18.9	11	20.8	8	15.1	-	-	5	9.4	19	35.8	53	100
8 104	21	33.3	17	27.0	-	-	-	-	-	-	25	39.7	63	100
8 105,106	4	7.8	31	60.8	4	7.8	-	-	-	-	12	23.5	51	100
8 201	17	37.8	18	40.0	-	-	-	-	-	-	10	22.2	45	100
8 202	27	50.0	10	18.5	-	-	-	-	-	-	17	31.5	54	100
8 203	35	57.4	5	8.2	-	-	-	-	-	-	21	34.4	61	100
8 204	7	23.3	11	36.7	8	26.7	-	-	-	-	4	13.3	30	100
8 205	21	34.4	18	29.5	5	8.2	-	-	-	-	17	27.9	61	100
8 206	14	50.0	9	32.1	5	17.9	-	-	-	-	-	-	28	100
8 207,208	3	10.3	8	27.6	4	13.8	-	-	6	20.7	8	27.6	29	100
8 301	5	16.7	15	50.0	-	-	-	-	-	-	10	33.3	30	100
8 302	8	15.7	4	7.8	8	15.7	-	-	-	-	31	60.8	51	100
8 303	8	18.2	15	34.1	-	-	-	-	-	-	21	47.7	44	100
8 304	17	50.0	8	23.5	4	11.8	-	-	-	-	5	14.7	34	100
8 305	-	-	17	32.1	11	20.8	5	9.4	-	-	20	37.7	53	100
8 306	4	13.8	17	58.6	4	13.8	-	-	-	-	4	13.8	29	100
8 307	12	35.3	8	23.5	-	-	-	-	-	-	14	41.2	34	100
8 308	9	18.7	21	43.7	8	16.7	5	10.4	-	-	5	10.4	48	100
8 309	4	10.3	22	56.4	8	20.5	-	-	-	-	5	12.8	39	100
8 310	29	21.6	53	39.6	29	21.6	-	-	6	4.5	17	12.7	134	100
8 402	10	25.6	19	48.7	10	25.6	-	-	-	-	-	-	39	100
8 403	35	26.9	45	34.6	27	20.8	-	-	-	-	23	17.7	130	100
8 404	33	27.3	41	33.9	25	20.7	9	7.4	-	-	13	10.7	121	100
8 405	14	33.3	16	38.1	5	11.9	-	-	-	-	7	16.7	42	100
8 406	13	25.5	13	25.5	8	15.7	-	-	-	-	17	33.3	51	100
8 407	17	40.5	17	40.5	-	-	-	-	-	-	8	19.0	42	100
8 408	22	29.7	35	47.3	-	-	4	5.4	-	-	13	17.6	74	100

8 502	3	5.1	35	59.3	5	8.5	-	-	-	-	16	27.1	59	100
8 503	12	21.4	24	42.9	4	7.1	-	-	-	-	16	28.6	56	100
8 504	-	-	28	51.9	-	-	-	-	-	-	26	48.1	54	100
8 507,508	9	8.8	76	74.5	3	2.9	-	-	-	-	14	13.7	102	100
9 101	27	33.3	47	58.0	-	-	-	-	-	-	7	8.6	81	100
9 102	5	10.2	36	73.5	-	-	-	-	-	-	8	16.3	49	100
9 103	4	8.5	35	74.5	8	17.0	-	-	-	-	-	-	47	100
9 104	14	32.6	19	44.2	6	14.0	-	-	-	-	4	9.3	43	100
9 105	9	23.1	22	56.4	-	-	-	-	-	-	8	20.5	39	100
9 106	13	20.0	36	55.4	-	-	-	-	-	-	16	24.6	65	100
9 202	24	32.4	30	40.5	11	14.9	-	-	-	-	9	12.2	74	100
9 203	43	30.5	80	56.7	10	7.1	-	-	-	-	8	5.7	141	100
9 205	-	-	26	70.3	11	29.7	-	-	-	-	-	-	37	100
9 206	3	7.3	23	56.1	4	9.8	-	-	-	-	11	26.8	41	100
9 208	13	15.3	50	58.8	8	9.4	-	-	-	-	14	16.5	85	100
9 209	49	48.0	19	18.6	11	10.8	-	-	-	-	23	22.5	102	100
9 210	50	49.0	26	25.5	7	6.9	-	-	-	-	19	18.6	102	100
9 309,310	5	17.2	14	48.3	10	34.5	-	-	-	-	-	-	29	100
9 311	7	19.4	25	69.4	4	11.1	-	-	-	-	-	-	36	100
9 312	4	13.8	13	44.8	5	17.2	-	-	-	-	7	24.1	29	100
9 401	6	14.3	12	28.6	9	21.4	4	9.5	-	-	11	26.2	42	100
9 402	40	28.6	65	46.4	13	9.3	-	-	-	-	22	15.7	140	100
9 403,404	17	17.7	48	50.0	19	19.8	-	-	-	-	12	12.5	96	100
9 405	4	10.8	15	40.5	4	10.8	-	-	-	-	14	37.8	37	100
9 406	10	22.2	26	57.8	4	8.9	-	-	-	-	5	11.1	45	100
9 407	4	6.8	31	52.5	4	6.8	4	6.8	-	-	16	27.1	59	100

9 501	13	36.1	15	41.7	3	8.3	-	-	-	-	5	13.9	36	100
9 502	23	36.5	22	34.9	10	15.9	5	7.9	-	-	3	4.8	63	100
9 503,504	4	7.0	31	54.4	13	22.8	4	7.0	-	-	5	8.8	57	100
9 505	4	9.1	22	50.0	12	27.3	-	-	-	-	6	13.6	44	100
9 506	15	14.9	43	42.6	19	18.8	-	-	-	-	24	23.8	101	100
9 507	4	4.3	59	64.1	15	16.3	-	-	-	-	14	15.2	92	100
9 508	9	16.7	23	42.6	16	29.6	-	-	-	-	6	11.1	54	100
10 102	7	9.9	37	52.1	19	26.8	-	-	-	-	8	11.3	71	100
10 103,104	4	10.3	12	30.8	23	59.0	-	-	-	-	-	-	39	100
10 105	8	16.3	27	55.1	14	28.6	-	-	-	-	-	-	49	100
10 106	19	16.7	56	49.1	7	6.1	10	8.8	-	-	22	19.3	114	100
10 107	4	11.1	7	19.4	13	36.1	8	22.2	-	-	4	11.1	36	100
10 110	4	7.4	34	63.0	12	22.2	-	-	-	-	4	7.4	54	100
10 201	4	15.4	7	26.9	8	30.8	-	-	-	-	7	26.9	26	100
10 202-206	8	8.3	27	28.1	50	52.1	8	8.3	-	-	3	3.1	96	100
10 301-303	4	4.9	13	15.9	48	58.8	-	-	-	-	17	20.7	82	100
10 304,305	-	-	11	23.9	31	67.4	-	-	-	-	4	8.7	46	100
10 306	4	8.7	16	34.8	11	23.9	-	-	4	8.7	11	23.9	46	100
10 401	-	-	31	47.7	23	35.4	8	12.3	-	-	3	4.6	65	100
10 402-406	17	18.9	45	50.0	24	26.7	-	-	-	-	4	4.4	90	100
10 407	4	5.6	44	61.1	20	27.8	-	-	-	-	4	5.6	72	100
10 408	12	12.2	41	41.8	34	34.7	-	-	-	-	11	11.2	98	100
10 501	4	12.5	21	65.6	4	12.5	-	-	-	-	3	9.4	32	100
10 502	15	41.7	9	25.0	12	33.3	-	-	-	-	-	-	36	100
10 503,504	14	25.9	19	35.2	14	25.9	4	7.4	-	-	3	5.6	54	100
10 505	16	21.3	39	52.0	16	21.3	-	-	-	-	4	5.3	75	100
10 506	24	12.2	95	48.2	51	25.9	7	3.6	-	-	20	10.2	197	100
10 507	8	11.1	38	52.8	10	13.9	-	-	-	-	16	22.2	72	100
10 508,509	64	36.6	92	42.6	8	4.6	-	-	-	-	11	6.3	175	100

11 101	-	-	23	43.4	26	49.1	-	-	-	-	4	7.5	53	100
11 102	-	-	28	53.8	13	25.0	8	15.4	-	-	3	5.8	52	100
11 103-106	-	-	39	43.3	39	43.3	4	4.4	-	-	8	8.9	90	100
11 108	-	-	12	38.7	15	48.4	4	12.9	-	-	-	-	31	100
11 109,111	-	-	4	11.1	24	66.7	8	22.2	-	-	-	-	36	100
11 112	-	-	4	7.0	41	71.9	12	21.1	-	-	-	-	57	100
11 113	-	-	21	19.8	67	63.2	18	17.0	-	-	-	-	106	100
11 202	-	-	15	37.5	22	55.0	3	7.5	-	-	-	-	40	100
11 203-206	5	8.1	22	35.5	30	48.4	5	8.1	-	-	-	-	62	100
11 207	-	-	4	14.8	13	48.1	10	37.0	-	-	-	-	27	100
11 209,210	-	-	15	41.7	16	44.4	5	13.9	-	-	-	-	36	100
11 211	10	7.2	92	66.7	29	21.0	3	2.2	-	-	4	2.9	138	100
11 212	7	18.9	19	51.4	7	18.9	-	-	-	-	4	10.8	37	100
12 104,111	70	16.9	239	57.7	39	9.4	21	5.1	-	-	45	10.9	414	100
12 112	7	14.0	31	62.0	12	24.0	-	-	-	-	-	-	50	100
12 113	12	7.5	118	73.7	22	13.7	-	-	-	-	8	5.0	160	100
12 114,115	23	22.1	57	54.8	12	11.5	-	-	-	-	12	11.5	104	100
12 116	5	20.0	16	64.0	4	16.0	-	-	-	-	-	-	25	100
12 117	22	29.7	35	47.3	9	12.2	-	-	-	-	8	10.8	74	100
12 201	41	36.9	48	43.2	16	14.4	6	5.4	-	-	-	-	111	100
12 202	3	5.7	29	54.7	17	32.1	-	-	-	-	4	7.5	53	100
12 203	11	20.8	34	64.2	8	15.1	-	-	-	-	-	-	53	100
12 204	7	9.7	42	58.3	18	25.0	-	-	-	-	5	6.9	72	100
12 205	4	8.9	26	57.8	15	33.3	-	-	-	-	-	-	45	100
12 206	-	-	39	75.0	13	25.0	-	-	-	-	-	-	52	100

12 301-403	12	13.6	42	47.7	30	34.1	-	-	-	-	4	4.5	88	100
12 404	5	9.4	44	83.0	4	7.5	-	-	-	-	-	-	53	100
12 405,406	7	20.0	4	11.4	24	68.6	-	-	-	-	-	-	35	100
12 407	7	30.4	12	52.2	-	-	-	-	-	-	4	17.4	23	100
12 408,501-503	16	20.0	48	60.0	12	15.0	-	-	-	-	4	5.0	80	100
12 504	-	-	15	55.6	8	29.6	-	-	-	-	4	14.8	27	100
12 505	-	-	15	55.6	12	44.4	-	-	-	-	-	-	27	100
12 506	11	17.2	36	56.2	13	20.3	4	6.2	-	-	-	-	64	100
12 507	-	-	34	63.0	16	29.6	-	-	-	-	4	7.4	54	100
13 101	87	25.1	157	45.2	20	5.8	-	-	-	-	83	23.9	347	100
13 102	86	52.4	40	24.4	21	12.8	-	-	-	-	17	10.4	164	100
13 107	9	34.6	17	65.4	-	-	-	-	-	-	-	-	26	100
13 108	8	7.8	51	49.5	28	27.2	-	-	-	-	16	15.5	103	100
13 109	9	22.5	19	47.5	7	17.5	-	-	-	-	5	12.5	40	100
13 201	7	5.6	67	53.6	27	21.6	5	4.0	-	-	19	15.2	125	100
13 202,203	4	14.8	4	14.8	9	33.3	7	25.9	-	-	3	11.1	27	100
13 206-208	4	13.3	26	86.7	-	-	-	-	-	-	-	-	30	100
13 301	7	12.3	42	73.7	-	-	-	-	-	-	8	14.0	57	100
13 302	8	29.6	3	11.1	13	48.1	-	-	-	-	3	11.1	27	100
13 303,304	39	24.8	78	49.7	32	20.4	-	-	-	-	8	5.1	157	100
13 305,306	18	17.8	52	51.5	8	7.9	4	4.0	-	-	19	18.8	101	100
14 102	10	16.9	18	30.5	13	22.0	5	8.5	-	-	13	22.0	59	100
14 103	4	6.2	49	76.6	8	12.5	-	-	3	4.7	-	-	64	100
14 104-107	-	-	17	42.5	15	37.5	4	10.0	-	-	4	10.0	40	100
14 108	-	-	25	65.8	13	34.2	-	-	-	-	-	-	38	100
14 109	4	10.0	19	47.5	13	32.5	4	10.0	-	-	-	-	40	100
14 110	5	13.9	11	30.6	17	47.2	-	-	-	-	3	8.3	36	100
14 111	-	-	7	23.3	19	63.3	-	-	-	-	4	13.3	30	100
14 112	-	-	7	20.6	19	55.9	-	-	-	-	8	23.5	34	100
14 113	-	-	19	73.1	7	26.9	-	-	-	-	-	-	26	100

14 201-203	-	-	20	60.6	13	39.4	-	-	-	-	-	-	33	100
14 204	4	14.8	6	22.2	8	29.6	-	-	-	-	9	33.3	27	100
14 205-208	3	5.6	40	74.1	11	20.4	-	-	-	-	-	-	54	100
14 301	14	21.9	38	59.4	9	14.1	-	-	-	-	3	4.7	64	100
14 302	18	27.3	22	33.3	6	9.1	-	-	-	-	20	30.3	66	100
14 303	13	20.0	15	23.1	3	4.6	-	-	-	-	34	52.3	65	100
14 304	7	11.3	14	22.6	-	-	-	-	-	-	41	66.1	62	100
14 305	44	25.7	73	42.7	18	10.5	2	1.2	-	-	34	19.9	171	100
14 306	26	19.1	77	56.6	24	17.6	4	2.9	-	-	5	3.7	136	100
14 401	-	-	27	69.2	8	20.5	-	-	-	-	4	10.3	39	100
14 402	3	5.3	15	26.3	12	21.1	-	-	-	-	27	47.4	57	100
14 403	19	35.2	19	35.2	4	7.4	5	9.3	-	-	7	13.0	54	100
14 405	28	17.7	89	56.3	8	5.1	12	7.6	-	-	21	13.3	158	100
14 406	-	-	31	39.7	23	29.5	9	11.5	-	-	15	19.2	78	100
14 407	8	15.1	38	71.7	4	7.5	-	-	-	-	3	5.7	53	100
14 501,502	4	16.7	3	12.5	8	33.3	-	-	-	-	9	37.5	24	100
14 503	-	-	13	36.1	14	38.9	4	11.1	-	-	5	13.9	36	100
14 504	-	-	7	25.0	13	46.4	4	14.3	-	-	4	14.3	28	100
14 505,506	-	-	20	45.5	24	54.5	-	-	-	-	-	-	44	100
14 507-511	-	-	14	24.6	43	75.4	-	-	-	-	-	-	57	100
15 101	2	10.0	11	55.0	4	20.0	-	-	-	-	3	15.0	20	100
15 102	7	15.6	15	33.0	8	17.8	-	-	-	-	15	33.3	45	100
15 103	4	9.8	23	56.1	4	9.8	-	-	-	-	10	24.4	41	100
15 104	10	16.1	19	30.6	10	16.1	-	-	-	-	23	37.1	62	100
15 105	22	46.8	17	36.2	-	-	-	-	-	-	8	17.0	47	100
15 106	20	31.7	24	38.1	-	-	-	-	-	-	19	30.2	63	100
15 107	23	50	13	28.3	5	10.9	-	-	-	-	5	10.9	46	100

15 201	21	29.6	34	47.9	12	16.9	-	-	4	5.6	-	-	71	100
15 202,203	39	39.0	21	21.0	9	9.0	-	-	-	-	31	31.0	100	100
15 204	17	40.5	25	59.5	-	-	-	-	-	-	-	-	42	100
15 205	18	50.0	9	25.0	9	25.0	-	-	-	-	-	-	36	100
15 206	7	22.6	16	51.6	4	12.9	-	-	-	-	4	12.9	31	100
15 301	8	29.6	19	70.4	-	-	-	-	-	-	-	-	27	100
15 302,303	26	39.4	25	37.9	10	15.2	-	-	-	-	5	7.6	66	100
15 304	30	43.5	33	47.8	-	-	-	-	-	-	6	8.7	69	100
15 305	8	10.3	32	41.0	32	41.0	-	-	4	5.1	2	2.6	78	100
15 306	21	34.4	27	44.3	13	21.3	-	-	-	-	-	-	61	100
15 401	4	5.3	26	34.7	15	20.0	5	6.7	-	-	25	33.3	75	100
15 402	19	54.3	13	37.1	-	-	-	-	-	-	3	8.6	35	100
15 403-405	33	50.8	26	40.0	-	-	-	-	-	-	6	9.2	65	100
15 406	9	32.1	19	67.9	-	-	-	-	-	-	-	-	28	100
15 407	16	38.1	8	19.0	5	11.9	5	11.9	-	-	8	19.0	42	100
15 408	14	22.2	37	58.7	9	14.3	-	-	-	-	3	4.8	63	100
15 409	18	28.6	21	33.3	5	7.9	-	-	-	-	19	30.2	63	100
15 410	15	29.4	26	51.0	-	-	5	9.8	-	-	5	9.8	51	100
15 501	24	38.7	30	48.4	3	4.8	-	-	-	-	5	8.1	62	100
15 502	43	29.3	64	43.5	9	6.1	-	-	-	-	31	21.1	147	100
15 503	36	42.4	42	49.4	-	-	4	4.7	-	-	3	3.5	85	100
15 504	17	37.8	9	20.0	9	20.0	-	-	-	-	10	22.2	45	100
15 505	9	11.4	29	36.7	-	-	-	-	-	-	41	51.9	79	100
15 506	26	32.5	18	22.5	13	16.2	-	-	5	6.2	18	22.5	80	100
15 507	39	48.7	7	8.7	5	6.2	-	-	-	-	29	36.2	80	100

15 601	23	65.7	4	11.4	-	-	-	-	-	-	8	22.9	35	100
15 602	13	28.3	8	17.4	-	-	-	-	-	-	25	54.3	46	100
15 603	17	26.6	31	48.4	-	-	-	-	-	-	16	25.0	64	100
15 604	24	22.4	35	32.7	5	4.7	4	3.7	-	-	39	36.4	107	100
15 605	14	18.7	24	32.0	-	-	-	-	-	-	37	49.3	75	100
15 606	23	31.5	28	38.4	3	4.1	-	-	-	-	19	26.0	73	100
15 607	5	8.5	23	39.0	11	18.6	10	16.9	-	-	10	16.9	59	100
15 701	9	9.0	54	54.0	7	7.0	-	-	-	-	30	30.0	100	100
15 702	10	27.0	14	37.8	3	8.1	-	-	-	-	10	27.0	37	100
15 703	20	39.2	13	25.5	-	-	-	-	-	-	18	35.3	51	100
15 704	11	33.3	5	15.2	8	24.2	-	-	-	-	9	27.3	33	100
15 705	24	38.1	20	31.7	-	-	-	-	-	-	19	30.2	63	100
15 706	7	9.3	31	41.3	14	18.7	-	-	-	-	23	30.7	75	100
15 801	8	25.8	8	25.8	8	25.8	5	16.1	-	-	2	6.5	31	100
15 802	6	12.8	33	70.2	4	8.5	-	-	-	-	4	8.5	47	100
15 803	11	21.2	30	57.7	11	21.2	-	-	-	-	-	-	52	100
15 804,805	5	7.6	36	54.5	19	28.8	-	-	-	-	6	9.1	66	100
15 806	24	42.9	8	14.3	16	28.6	-	-	4	7.1	4	7.1	56	100
15 807,808	4	13.3	18	60.0	4	13.3	-	-	-	-	4	13.3	30	100
15 809	11	32.4	6	17.6	17	50.0	-	-	-	-	-	-	34	100
16 101	36	47.4	32	42.1	-	-	-	-	-	-	8	10.5	76	100
16 102	106	61.6	36	20.9	-	-	-	-	-	-	30	17.4	172	100
16 103	17	19.5	42	48.3	12	13.8	-	-	-	-	16	18.4	87	100
16 104	9	12.3	46	63.0	8	11.0	-	-	-	-	10	13.7	73	100
16 105	9	11.4	42	53.2	7	8.9	-	-	-	-	21	26.6	79	100
16 106,201	5	14.3	21	60.0	5	14.3	-	-	-	-	4	11.4	35	100
16 202	24	27.9	35	40.7	-	-	-	-	-	-	27	31.4	86	100
16 203	33	63.5	8	15.4	-	-	-	-	-	-	11	21.2	52	100
16 204	81	50.3	26	16.1	13	8.1	-	-	-	-	41	25.5	161	100

16 205,206	62	74.7	16	19.3	-	-	-	-	-	-	5	6.0	83	100
16 301	115	75.2	13	8.5	6	3.9	-	-	-	-	19	12.4	153	100
16 302	78	69.0	22	19.5	5	4.4	-	-	-	-	8	7.1	113	100
16 303	51	63.0	19	23.5	-	-	-	-	-	-	11	13.6	81	100
16 304	65	72.2	16	17.8	5	5.6	-	-	-	-	4	4.4	90	100
16 305	37	34.6	41	38.3	4	3.7	-	-	-	-	25	23.4	107	100
16 306	47	52.2	29	32.2	6	6.7	-	-	-	-	8	8.9	90	100
16 401	14	21.9	38	59.4	8	12.5	-	-	-	-	4	6.2	64	100
16 402	44	53.7	20	24.4	5	6.1	-	-	-	-	13	15.9	82	100
16 403	-	-	19	67.9	5	17.9	-	-	-	-	4	14.3	28	100
16 404	9	24.3	15	40.5	-	-	-	-	-	-	13	35.1	37	100
16 405,406	5	9.3	25	46.3	4	7.4	-	-	-	-	20	37.0	54	100
16 501	4	10.5	-	-	-	-	-	-	-	-	34	89.5	38	100
16 502	21	33.3	20	31.7	-	-	-	-	-	-	22	34.9	63	100
16 503	9	17.6	29	56.9	9	17.6	-	-	-	-	4	7.8	51	100
16 504	26	41.3	22	34.9	15	23.8	-	-	-	-	-	-	63	100
16 505,506	19	19.6	43	44.3	13	13.4	5	5.2	-	-	17	17.5	97	100
16 602	15	31.9	19	40.4	4	8.5	-	-	-	-	9	19.1	47	100
16 603	24	41.4	9	15.5	4	6.9	-	-	-	-	21	36.2	58	100
16 604	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16 605,606	47	42.0	36	32.1	8	7.1	-	-	-	-	21	18.7	112	100
17 101,102	27	27.3	59	59.6	13	13.1	-	-	-	-	-	-	99	100
17 104-206	7	14.0	34	68.0	2	4.0	2	4.0	-	-	5	10.0	50	100
17 405-407	35	37.2	33	35.1	12	12.8	-	-	-	-	14	14.9	94	100
18 102,103	8	9.3	38	44.2	15	17.4	3	3.5	-	-	22	25.6	86	100
18 104,105	8	15.7	20	39.2	23	45.1	-	-	-	-	-	-	51	100
18 106	24	21.8	63	57.3	12	10.9	4	3.6	-	-	7	6.4	110	100
18 107,201	54	25.6	114	54.0	39	18.5	-	-	-	-	4	1.9	211	100
18 202	4	12.5	28	87.5	-	-	-	-	-	-	-	-	32	100

18 203	-	-	96	100.0	-	-	-	-	-	-	-	-	96	100
18 204	27	21.8	93	75.0	4	3.2	-	-	-	-	-	-	124	100
18 207	30	44.8	19	28.4	9	13.4	4	6.0	-	-	5	7.5	67	100
18 208	7	7.9	46	51.7	13	14.6	-	-	-	-	23	25.8	89	100
18 209	7	9.3	59	78.7	4	5.3	-	-	-	-	5	6.7	75	100
18 301	8	5.6	117	81.2	15	10.4	-	-	-	-	4	2.8	144	100
18 302-307	-	-	12	20.0	37	61.7	3	5.0	-	-	8	13.3	60	100
18 309-402	-	-	64	57.1	22	19.6	-	-	-	-	26	23.2	112	100
18 403	18	17.0	32	30.2	5	4.7	3	2.8	-	-	48	45.3	106	100
18 404	10	11.5	37	42.5	12	13.8	-	-	-	-	28	32.2	87	100
18 405	18	21.2	53	62.4	4	4.7	-	-	-	-	10	11.8	85	100
18 406	-	-	9	37.5	-	-	3	12.5	-	-	12	50.0	24	100
18 407	6	6.5	48	51.6	18	19.4	6	6.5	-	-	15	16.1	93	100
19 101,102	8	27.6	17	58.6	4	13.8	-	-	-	-	-	-	29	100
19 103,104	13	37.1	5	14.3	9	25.7	-	-	-	-	8	22.9	35	100
19 105	7	14.6	28	58.3	7	14.6	-	-	-	-	6	12.5	48	100
19 106	13	31.0	15	35.7	4	9.5	6	14.3	-	-	4	9.5	42	100
19 107	17	50.0	9	26.5	4	11.8	-	-	-	-	4	11.8	34	100
19 108	11	23.9	31	67.4	-	-	-	-	-	-	4	8.7	46	100
19 201	-	-	23	48.9	14	29.8	6	12.8	-	-	4	8.5	47	100
19 202	8	20.0	17	42.5	5	12.5	5	12.5	-	-	5	12.5	40	100
19 203	14	51.9	9	33.3	-	-	-	-	-	-	4	14.8	27	100
19 204	30	33.0	32	35.2	11	12.1	-	-	-	-	18	19.8	91	100
19 205, 206	11	10.9	29	28.7	-	-	-	-	-	-	61	60.4	101	100
19 207	19	19.2	48	48.5	8	8.1	-	-	-	-	24	24.2	99	100
19 301	21	28.8	16	21.9	14	19.2	-	-	-	-	22	30.1	73	100
19 302	16	26.7	15	25.0	15	25.0	5	8.3	-	-	9	15.0	60	100
19 303	20	24.1	27	32.5	14	16.9	-	-	-	-	22	26.5	83	100
19 304	23	30.7	42	56.0	2	2.7	-	-	-	-	8	10.7	75	100

19 305	27	32.1	40	47.6	13	15.5	-	-	-	-	4	4.8	84	100
19 306	29	34.9	31	37.3	4	4.8	-	-	-	-	19	22.9	83	100
19 307	12	21.8	31	56.4	8	14.5	-	-	-	-	4	7.3	55	100
19 308	16	51.6	11	35.5	4	12.9	-	-	-	-	-	-	31	100
19 401	4	16.0	4	16.0	5	20.0	4	16.0	-	-	8	32.0	25	100
19 402,403	-	-	23	63.9	4	11.1	-	-	-	-	9	25.0	36	100
19 404	4	5.6	39	54.2	21	29.2	8	11.1	-	-	-	-	72	100
19 405	8	14.3	40	71.4	4	7.1	-	-	-	-	4	7.1	56	100
19 406	9	14.5	43	69.4	6	9.7	-	-	-	-	4	6.5	62	100
19 407	48	21.5	118	52.9	15	6.7	2	0.9	-	-	40	17.9	223	100
19 408	12	25.5	12	25.5	8	17.0	-	-	-	-	15	31.9	47	100
19 409	15	21.1	28	39.4	24	33.8	-	-	-	-	4	5.6	71	100
19 410	12	12.1	57	57.6	16	16.2	-	-	-	-	14	14.1	99	100
19 411	12	17.1	23	32.9	27	38.6	-	-	-	-	8	11.4	70	100
19 501	8	19.0	12	28.6	11	26.2	-	-	-	-	11	26.2	42	100
19 502,503	4	4.8	54	64.3	4	4.8	-	-	-	-	22	26.2	84	100
19 505	7	11.3	33	53.2	11	17.7	7	11.3	-	-	4	6.5	62	100
19 506	17	12.3	74	53.6	22	15.9	-	-	-	-	25	18.1	138	100
19 507,508	-	-	26	78.8	3	9.1	-	-	-	-	4	12.1	33	100
20 101	92	32.9	129	46.1	21	7.5	-	-	-	-	38	13.6	280	100
20 102	16	15.7	46	45.1	11	10.8	-	-	-	-	29	28.4	102	100
20 103	20	26.0	23	29.9	16	20.8	3	3.9	-	-	15	19.5	77	100
20 104	64	38.8	39	23.6	20	12.1	-	-	-	-	42	25.5	165	100
20 105	45	33.3	58	43.0	9	6.7	-	-	-	-	23	17.0	135	100
20 106	14	24.1	22	37.9	9	15.5	-	-	-	-	13	22.4	58	100
20 107	24	35.8	20	29.9	12	17.9	-	-	-	-	11	16.4	67	100
20 108	21	45.7	25	54.3	-	-	-	-	-	-	-	-	46	100
20 201	47	31.5	46	30.9	14	9.4	4	2.7	-	-	38	25.5	149	100
20 202	24	38.7	26	41.9	-	-	-	-	-	-	12	19.4	62	100
20 203	10	15.4	33	50.8	8	12.3	-	-	-	-	14	21.5	65	100

20 204	76	49.7	51	33.3	10	6.5	4	2.6	-	-	12	7.8	153	100
20 205	30	46.2	22	33.8	-	-	-	-	3	4.6	10	15.4	65	100
20 206	9	34.6	13	50.0	-	-	-	-	-	-	4	15.4	26	100
20 207	4	13.8	13	44.8	-	-	-	-	-	-	12	41.4	29	100
20 208,301	25	25.8	17	17.5	-	-	4	4.1	-	-	51	52.6	97	100
20 302-304	9	29.0	12	38.7	-	-	-	-	-	-	10	32.3	31	100
21 105	15	44.1	6	17.6	-	-	-	-	-	-	13	38.2	34	100
21 106,107	33	35.5	38	40.9	4	4.3	-	-	-	-	18	19.4	93	100
21 108, 109	2	3.8	20	37.7	5	9.4	7	13.2	-	-	19	35.8	53	100
21 110,111	-	-	10	40.0	-	-	-	-	-	-	15	60.0	25	100
21 112	39	78.0	3	6.0	-	-	-	-	-	-	8	16.0	50	100
21 201,202	18	25.4	17	23.9	9	12.7	5	7.0	-	-	22	31.0	71	100
21 203	21	22.3	28	29.8	18	19.1	-	-	-	-	27	28.7	94	100
21 204	20	47.6	11	26.2	-	-	-	-	-	-	11	26.2	42	100
21 205	16	64.0	5	20.0	-	-	-	-	-	-	4	16.0	25	100
21 206-208	71	64.0	21	18.9	5	4.5	-	-	-	-	14	12.6	111	100
22 303	55	59.8	26	28.3	-	-	-	-	-	-	11	12.0	92	100
22 304,305	65	46.8	50	36.0	14	10.1	-	-	5	3.6	5	3.6	139	100
22 306	3	100.0	-	-	-	-	-	-	-	-	-	-	3	100
22 307,308	19	34.5	21	38.2	4	7.3	11	20.0	-	-	-	-	55	100
22 310	19	39.6	22	45.8	3	6.2	-	-	-	-	4	8.3	48	100
22 406	14	17.7	46	58.2	7	8.9	3	3.8	-	-	9	11.4	79	100
22 407	6	18.7	15	46.9	4	12.5	-	-	-	-	7	21.9	32	100
22 408	30	60.0	20	40.0	-	-	-	-	-	-	-	-	50	100
22 409	15	27.3	28	50.9	4	7.3	-	-	-	-	8	14.5	55	100
23 102	14	27.5	18	35.3	5	9.8	10	19.6	-	-	4	7.8	51	100
23 103	14	45.2	8	25.8	9	29.0	-	-	-	-	-	-	31	100
23 104	31	34.4	45	50.0	10	11.1	-	-	-	-	4	4.4	90	100
23 105,106	14	32.6	20	46.5	2	4.7	-	-	-	-	7	16.3	43	100

23 107	8	20.5	25	64.1	6	15.4	-	-	-	-	-	-	39	100
23 108	16	42.1	11	28.9	5	13.2	6	15.8	-	-	-	-	38	100
23 109	19	44.2	8	18.6	-	-	-	-	-	-	16	37.2	43	100
23 110	8	20.5	13	33.3	5	12.8	-	-	-	-	13	33.3	39	100
23 111	7	13.0	26	48.1	6	11.1	-	-	-	-	15	27.8	54	100
23 204-207	14	34.1	3	7.3	5	12.2	-	-	-	-	19	46.3	41	100
23 301	28	42.4	20	30.3	-	-	5	7.6	-	-	13	19.7	66	100
23 302	20	29.9	40	59.7	-	-	-	-	-	-	7	10.4	67	100
23 303	18	30.5	31	52.5	2	3.4	-	-	-	-	8	13.6	59	100
23 304	13	26.0	27	54.0	5	10.0	-	-	-	-	5	10.0	50	100
23 305	9	16.4	26	47.3	9	16.4	-	-	-	-	11	20.0	55	100
23 306	4	6.3	30	47.6	13	20.6	4	6.3	-	-	12	19.0	63	100
23 307	17	25.0	15	22.1	14	20.6	-	-	4	5.9	18	26.5	68	100
23 401	7	15.6	12	26.7	5	11.1	-	-	-	-	21	46.7	45	100
23 402	16	25.0	29	45.3	5	7.8	3	4.7	-	-	11	17.2	64	100
23 404	8	18.6	23	53.5	4	9.3	4	9.3	-	-	4	9.3	43	100
23 405	4	9.3	22	51.2	5	11.6	-	-	-	-	12	27.9	43	100
23 406	16	32.7	11	22.4	-	-	-	-	-	-	22	44.9	49	100
23 407	13	36.1	18	50.0	-	-	-	-	-	-	5	13.9	36	100
23 408	18	40.9	11	25.0	-	-	-	-	-	-	15	34.1	44	100
23 501	17	25.8	19	28.8	4	6.1	-	-	-	-	26	39.4	66	100
23 502	9	18.4	5	10.2	4	8.2	-	-	-	-	31	63.3	49	100
23 505,506	17	24.3	22	31.4	10	14.3	5	7.1	-	-	16	22.9	70	100
23 507	15	21.1	15	21.1	9	12.7	-	-	-	-	32	45.1	71	100
23 508	20	17.5	45	39.5	16	14.0	-	-	-	-	33	28.9	114	100
23 509	19	33.3	9	15.8	-	-	-	-	-	-	29	50.9	57	100

23 510-513	11	13.9	40	50.6	5	6.3	-	-	-	-	23	29.1	79	100
24 102,103	4	16.7	4	16.7	11	45.8	-	-	-	-	5	20.8	24	100
24 104	7	12.3	22	38.6	16	28.1	-	-	-	-	12	21.1	57	100
24 105	19	25.3	20	26.7	14	18.7	3	4.0	-	-	19	25.3	75	100
24 106	8	17.8	22	48.9	3	6.7	-	-	-	-	12	26.7	45	100
24 107	-	-	28	87.5	-	-	-	-	-	-	4	12.5	32	100
24 108	5	20.0	14	56.0	-	-	-	-	-	-	6	24.0	25	100
24 109	8	16.7	14	29.2	6	12.5	-	-	-	-	20	41.7	48	100
24 110,111	20	26.0	50	64.9	3	3.9	-	-	-	-	4	5.2	77	100
24 201	15	42.9	12	34.3	8	22.9	-	-	-	-	-	-	35	100
24 202	30	42.9	17	24.3	16	22.9	-	-	-	-	7	10.0	70	100
24 203	29	27.6	61	58.1	3	2.9	-	-	-	-	12	11.4	105	100
24 204	38	36.2	43	41.0	10	9.5	-	-	-	-	14	13.3	105	100
24 205	19	38.0	16	32.0	7	14.0	-	-	-	-	8	16.0	50	100
24 206	7	10.6	13	19.7	9	13.6	4	6.1	-	-	33	50.0	66	100
24 207	-	-	22	35.5	15	24.2	-	-	-	-	25	40.3	62	100
24 208	14	29.2	14	29.2	9	18.7	-	-	-	-	11	22.9	48	100
24 209	20	29.4	15	22.1	8	11.8	-	-	-	-	25	36.8	68	100
24 301	24	40.0	18	30.0	8	13.8	-	-	-	-	10	16.7	60	100
24 302	-	-	31	58.5	12	22.6	-	-	-	-	10	18.9	53	100
24 303	18	25.4	36	50.7	13	18.3	-	-	-	-	4	5.6	71	100
24 304	23	34.3	13	19.4	8	11.9	-	-	-	-	23	34.3	67	100
24 305	29	33.7	22	25.6	5	5.8	-	-	-	-	30	34.9	86	100
24 306	-	-	5	13.9	4	11.1	-	-	-	-	27	75.0	36	100
24 308,309	46	32.6	73	51.8	12	8.5	-	-	-	-	10	7.1	141	100
24 310	8	32.0	9	36.0	8	32.0	-	-	-	-	-	-	25	100

24 401	38	35.5	44	41.1	13	12.1	-	-	-	-	12	11.2	107	100
24 402	4	7.4	32	59.3	4	7.4	-	-	-	-	14	25.9	54	100
24 403	25	67.6	12	32.4	-	-	-	-	-	-	-	-	37	100
24 404	22	35.5	32	51.6	-	-	3	4.8	-	-	5	8.1	62	100
24 405	18	46.2	11	28.2	-	-	-	-	-	-	10	25.6	39	100
24 505-507	5	14.3	16	45.7	4	11.4	6	17.1	-	-	4	11.4	35	100
25 101	-	-	17	63.0	10	37.0	-	-	-	-	-	-	27	100
25 102	13	28.9	27	60.0	5	11.1	-	-	-	-	-	-	45	100
25 103	12	44.4	12	44.4	3	11.1	-	-	-	-	-	-	27	100
25 104	2	6.7	10	33.3	8	26.7	-	-	-	-	10	33.3	30	100
25 105,106	12	40.0	18	60.0	-	-	-	-	-	-	-	-	30	100
25 204	25	73.5	5	14.7	4	11.8	-	-	-	-	-	-	34	100
25 205	76	48.1	52	32.9	4	2.5	-	-	-	-	26	16.5	158	100
25 301	18	30.0	35	58.3	7	11.7	-	-	-	-	-	-	60	100
25 302	13	39.4	8	24.2	4	12.1	4	12.1	-	-	4	12.1	33	100
25 303,304	12	26.7	24	53.3	4	8.9	-	-	-	-	5	11.1	45	100
25 305	17	36.2	18	38.3	8	17.0	4	8.5	-	-	-	-	47	100
25 306	-	-	28	66.7	14	33.3	-	-	-	-	-	-	42	100
25 308-310	13	26.0	23	46.0	6	12.0	-	-	-	-	8	16.0	50	100
25 311	5	19.2	16	61.5	-	-	-	-	-	-	5	19.2	26	100
25 312	13	26.5	14	28.6	9	18.4	-	-	-	-	13	26.5	49	100
25 213	-	-	15	38.5	-	-	-	-	-	-	24	61.5	39	100
25 314	4	7.0	21	36.8	12	21.1	-	-	4	7.0	16	28.1	57	100
25 401	29	26.1	41	36.9	8	7.2	4	3.6	-	-	29	26.1	111	100
25 402-404	22	27.5	35	43.7	12	15.0	-	-	-	-	11	13.7	80	100
25 405	13	27.1	10	20.8	8	16.7	-	-	-	-	17	35.4	48	100
25 406	15	33.3	13	28.9	13	28.9	-	-	-	-	4	8.9	45	100
25 407	9	19.6	22	47.8	8	17.4	-	-	-	-	7	15.2	46	100
25 501	10	38.5	9	34.6	3	11.5	-	-	-	-	4	15.4	26	100

25 502,503	19	25.3	30	40.0	22	29.3	-	-	-	-	-	-	75	100
25 504	7	20.6	27	79.4	-	-	-	-	-	-	-	-	34	100
25 505	9	18.0	24	48.0	12	24.0	-	-	-	-	5	10.0	50	100
25 506	23	36.5	20	31.7	16	25.4	-	-	-	-	4	6.3	63	100
25 507, 605	17	29.8	27	47.4	9	15.8	-	-	-	-	4	7.0	57	100
25 608, 609	30	33.0	36	39.6	16	17.6	5	5.5	-	-	4	4.4	91	100
25 610	12	21.8	29	52.7	10	18.2	-	-	-	-	4	7.3	55	100
25 611,612	-	-	32	69.6	5	10.9	-	-	-	-	9	19.6	46	100
25 613-616	13	27.7	8	17.0	9	19.1	5	10.6	-	-	12	25.5	47	100
26 101	5	10.6	28	59.6	4	8.5	-	-	-	-	10	21.3	47	100
26 102	-	-	32	41.6	18	23.4	4	5.2	-	-	23	29.9	77	100
26 103,104	-	-	19	73.1	3	11.5	4	15.4	-	-	-	-	26	100
26 105	8	11.8	11	16.2	25	36.8	-	-	-	-	24	35.3	68	100
26 106	-	-	46	48.4	44	46.3	-	-	-	-	5	5.3	95	100
26 107,108	-	-	53	68.8	16	20.8	-	-	-	-	8	10.4	77	100
26 201,202	15	22.4	26	38.8	11	16.4	-	-	-	-	15	22.4	67	100
26 203,204	12	14.0	40	46.5	17	19.8	-	-	-	-	17	19.8	86	100
26 205	12	11.7	66	64.1	4	3.9	4	3.9	-	-	17	16.5	103	100
26 208	12	15.6	37	48.1	14	18.2	-	-	-	-	14	18.2	77	100
26 209	16	16.5	43	44.3	18	18.6	13	13.4	-	-	7	7.2	97	100
26 210	5	17.2	20	69.0	4	13.8	-	-	-	-	-	-	29	100
26 211	5	18.5	14	51.9	4	14.8	-	-	4	14.8	-	-	27	100
26 214	5	8.1	23	37.1	4	6.5	-	-	4	6.5	26	41.9	62	100
26 301,302	10	24.4	12	29.3	19	46.3	-	-	-	-	-	-	41	100
26 303,304	-	-	20	55.6	12	33.3	-	-	-	-	4	11.1	36	100
26 305	-	-	18	36.0	12	24.0	4	8.0	-	-	16	32.0	50	100
26 306	10	10.0	33	33.0	25	25.0	9	9.0	-	-	23	23.0	100	100
26 307-309	17	12.2	47	33.8	28	20.1	8	5.8	-	-	39	28.1	139	100

26 401	4	9.1	24	54.5	7	15.9	-	-	-	-	9	20.5	44	100
26 402	9	26.5	8	23.5	4	11.8	-	-	-	-	13	38.2	34	100
26 403	-	-	12	40.0	10	33.3	-	-	-	-	8	26.7	30	100
26 404	16	44.4	11	30.6	-	-	4	11.1	-	-	5	13.9	36	100
26 405	10	27.0	7	18.9	4	10.8	8	21.6	-	-	8	21.6	37	100
26 407	-	-	8	28.6	-	-	4	14.3	-	-	16	57.1	28	100
26 408	4	11.8	16	47.1	-	-	3	8.8	-	-	11	32.4	34	100
26 409	-	-	16	35.6	15	33.3	-	-	-	-	14	31.1	45	100
26 410	4	9.3	24	55.8	3	7.0	-	-	-	-	12	27.9	43	100
26 411	14	13.3	22	21.0	5	4.8	-	-	-	-	64	61.0	105	100
26 412	11	37.9	4	13.8	4	13.8	-	-	-	-	10	34.5	29	100
26 413	27	28.4	40	42.1	11	11.6	4	4.2	4	4.2	9	9.5	95	100
26 502	6	27.3	12	54.5	4	18.2	-	-	-	-	-	-	22	100
26 503-509	4	6.5	36	58.1	18	29.0	4	6.5	-	-	-	-	62	100
26 510	5	17.2	11	37.9	9	31.0	4	13.8	-	-	-	-	29	100
26 511-513	-	-	27	50.9	11	20.8	-	-	4	7.5	11	20.8	53	100
26 514	14	8.9	81	51.3	41	25.9	4	2.5	3	1.9	15	9.5	158	100
26 515,516	-	-	11	42.3	4	15.4	-	-	-	-	11	42.3	26	100
26 517	3	4.8	40	64.5	16	25.8	-	-	-	-	3	4.8	62	100
26 518	-	-	11	40.7	16	59.3	-	-	-	-	-	-	27	100
26 519	4	3.0	70	52.2	42	31.3	-	-	-	-	18	13.4	134	100
27 103, 104	5	7.4	44	64.7	13	19.1	-	-	-	-	6	8.8	68	100
27 105	11	7.7	66	46.5	25	17.6	8	5.6	-	-	32	22.5	142	100
27 106-108	10	20.8	8	16.7	26	54.2	-	-	-	-	4	8.3	48	100
27 109	12	41.4	8	27.6	9	31.0	-	-	-	-	-	-	29	100
27 110	10	19.6	28	54.9	13	25.5	-	-	-	-	-	-	51	100

27 111	-	-	33	55.9	9	15.3	-	-	-	-	17	28.8	59	100
27 112-115	-	-	17	39.5	14	32.6	-	-	-	-	12	27.9	43	100
27 117, 202-207	14	19.7	30	42.3	22	31.0	-	-	-	-	5	7.0	71	100
27 208	6	17.6	18	52.9	5	14.7	-	-	5	14.7	-	-	34	100
27 209	4	14.3	10	35.7	8	28.6	-	-	-	-	6	21.4	28	100
27 210	-	-	25	50.0	17	34.0	-	-	-	-	8	16.0	50	100
27 211	4	4.9	52	63.4	19	23.2	3	3.7	-	-	4	4.9	82	100
27 212,213	6	9.7	30	48.4	14	22.6	9	14.5	-	-	3	4.8	62	100
27 214,215	-	-	57	77.0	11	14.9	-	-	-	-	6	8.1	74	100
27 216,217	5	12.8	16	41.0	10	25.6	-	-	-	-	8	20.5	39	100
27 218	5	17.2	20	69.0	4	13.8	-	-	-	-	-	-	29	100
27 219	3	7.5	13	32.5	21	52.5	-	-	3	7.5	-	-	40	100
27 220	-	-	19	61.3	4	12.9	4	12.9	-	-	4	12.9	31	100
27 221	-	-	32	36.8	52	59.8	-	-	-	-	3	3.4	87	100
27 401	12	20.0	29	48.3	10	16.7	-	-	-	-	9	15.0	60	100
27 402	-	-	18	50.0	-	-	-	-	-	-	18	50.0	36	100
27 403	14	23.3	27	45.0	7	11.7	-	-	-	-	12	20.0	60	100
27 404	11	20.4	21	38.9	-	-	4	7.4	-	-	18	33.3	54	100
27 405,406	-	-	14	28.0	7	14.0	-	-	-	-	29	58.0	50	100
27 407	3	6.7	22	48.9	12	26.7	-	-	-	-	8	17.8	45	100
27 408	9	19.1	20	42.6	9	19.1	-	-	-	-	9	19.1	47	100
27 409	12	13.5	60	67.4	8	9.0	-	-	-	-	9	10.1	89	100
27 410	-	-	15	53.6	-	-	-	-	-	-	13	46.4	28	100
27 411	3	6.7	28	62.2	-	-	4	8.9	-	-	10	22.2	45	100
27 412,413	6	20.0	5	16.7	11	36.7	-	-	-	-	8	26.7	30	100
27 414-419	9	14.8	6	9.8	17	27.9	4	6.6	-	-	25	41.0	61	100

28 101	14	6.3	100	44.8	82	36.8	8	3.6	-	-	19	8.5	223	100
28 103-105	-	-	19	51.4	13	35.1	-	-	-	-	5	13.5	37	100
28 107, 108	-	-	11	25.0	27	61.4	-	-	-	-	6	13.6	44	100
28 109	4	11.4	14	40.0	-	-	5	14.3	-	-	12	34.3	35	100
28 110-112	-	-	27	52.9	15	29.4	9	17.6	-	-	-	-	51	100
28 113	7	13.7	12	23.5	21	41.2	-	-	-	-	11	21.6	51	100
28 114	-	-	17	58.6	8	27.6	-	-	-	-	4	13.8	29	100
28 115, 116	-	-	7	29.2	17	70.8	-	-	-	-	-	-	24	100
28 117	2	4.7	26	60.5	9	20.9	-	-	-	-	6	14.0	43	100
28 118	-	-	5	18.5	22	81.5	-	-	-	-	-	-	27	100
28 119, 201	12	46.2	8	30.8	-	-	6	23.1	-	-	-	-	26	100
28 202	5	11.9	31	73.8	-	-	-	-	-	-	6	14.3	42	100
28 203	-	-	30	62.5	13	27.1	-	-	-	-	5	10.4	48	100
28 204, 205	-	-	13	28.3	30	65.2	-	-	-	-	3	6.5	46	100
28 206	5	19.2	-	-	15	57.7	-	-	-	-	6	23.1	26	100
28 207-209	8	17.0	15	31.9	19	40.4	-	-	-	-	5	10.6	47	100
28 210	3	12.0	9	36.0	8	32.0	5	20.0	-	-	-	-	25	100
28 211	4	12.5	8	25.0	14	43.7	6	18.7	-	-	-	-	32	100
28 212	3	3.4	25	28.4	51	58.0	9	10.2	-	-	-	-	88	100
28 301	6	7.6	53	67.1	13	16.5	1	1.3	-	-	6	7.6	79	100
28 302	-	-	8	29.6	19	70.4	-	-	-	-	-	-	27	100
28 304	-	-	10	27.8	13	36.1	5	13.9	-	-	8	22.2	36	100
28 305	-	-	40	90.9	-	-	4	9.1	-	-	-	-	44	100
28 306, 307	-	-	28	50.9	21	38.2	-	-	-	-	6	10.9	55	100
28 308-310	-	-	13	27.7	30	63.8	-	-	-	-	4	8.5	47	100
28 311	4	16.7	20	83.3	-	-	-	-	-	-	-	-	24	100
28 312	4	12.1	22	66.7	3	9.1	-	-	-	-	4	12.1	33	100

28 313,314	9	25.7	13	37.1	13	37.1	-	-	-	-	-	-	35	100
28 315,316	-	-	13	44.8	16	55.2	-	-	-	-	-	-	29	100
28 317	3	7.9	31	81.6	2	5.3	-	-	-	-	2	5.3	38	100
28 318-321	6	12.8	23	48.9	17	36.2	-	-	-	-	1	2.1	47	100
28 322	-	-	12	40.0	10	33.3	-	-	8	26.7	-	-	30	100
28 404,405	6	12.2	23	46.9	16	32.7	4	8.2	-	-	-	-	49	100
28 406,407	-	-	24	88.9	3	11.1	-	-	-	-	-	-	27	100
28 411	6	5.8	37	35.9	47	45.6	9	8.7	-	-	4	3.9	103	100
28 412,413	4	5.2	47	61.0	10	13.0	-	-	-	-	16	20.8	77	100
Total	11,047	25.0	17,970	40.7	6,140	13.9	762	1.7	111	0.3	8,109	18.4	44,139	100

Source: Special Census, New Haven City, 1967.
Note: Tabulation based on 25% data.

Number of Persons per Household Unit by Traffic Zone
New Haven City - 1967

Traffic Zone	1	2	3	4	5	6	7	8	9	10	Over 10	Total	Percent
12	-	-	-	-	-	-	-	-	-	-	-	-	-
13	31	-	-	-	-	-	-	-	-	-	-	31	0.1
21	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-
391	118	2	1	1	-	-	-	-	-	-	-	122	0.3
31	6	3	10	7	3	3	-	-	-	-	-	32	0.1
32	2	3	1	2	-	1	-	-	-	-	-	9	0.0
380	11	2	-	-	-	-	-	2	-	-	-	15	0.0
60	42	35	17	10	4	2	4	2	2	-	1	119	0.3
71	120	88	45	36	18	18	15	7	2	1	1	351	0.7
72	217	263	154	121	64	30	20	12	7	3	3	894	1.9
40	262	340	226	203	92	40	33	9	2	2	-	1209	2.6
51	177	295	161	132	78	41	25	22	5	1	2	939	2.0
52	170	233	158	120	85	44	30	18	4	3	-	865	1.8
81	289	395	238	164	89	57	35	23	6	1	2	1299	2.7
82	276	364	221	171	116	61	61	23	6	4	6	1309	2.8
100	1008	521	187	96	51	22	17	9	3	3	-	1917	4.1
111	348	96	32	11	11	9	11	3	1	-	2	524	1.1
112	769	383	59	8	7	2	1	-	-	-	-	1229	2.6
90	100	162	96	60	25	19	4	2	1	-	1	470	1.0
411	75	108	51	47	12	8	2	1	-	-	-	304	0.6
412	116	188	86	51	26	8	5	1	1	-	-	482	1.0
413	123	181	94	66	43	18	19	11	4	2	-	561	1.2
121	148	263	125	104	35	14	9	4	-	-	-	702	1.5
122	438	460	186	127	53	16	7	-	1	1	-	1289	2.7
331	273	324	152	95	67	30	12	4	4	-	-	961	2.0
332	50	94	51	33	23	4	4	4	-	-	-	263	0.6
333	26	53	25	24	11	4	1	1	-	-	-	145	0.3
334	28	107	41	44	41	23	7	5	-	-	-	296	0.6
340	57	338	218	247	96	31	4	2	-	-	1	994	2.1
351	82	184	176	144	129	50	25	11	5	4	-	810	1.7
352	135	416	237	162	82	20	8	3	-	-	-	1063	2.2
131	44	103	44	40	18	5	1	-	-	-	-	255	0.5
361	157	284	133	111	82	60	43	24	16	4	6	920	1.9
362	116	127	42	31	18	5	4	-	-	-	-	343	0.7
132	43	136	72	77	38	10	2	2	1	-	-	381	0.8
133	223	400	216	122	59	28	6	8	-	1	-	1063	2.2
134	28	105	41	59	34	18	4	1	1	-	-	291	0.6

Number of Persons per Household Unit by Traffic Zone
New Haven City - 1967

Traffic Zone	1	2	3	4	5	6	7	8	9	10	Over 10	Total	Percent
181	125	218	131	107	65	45	16	15	-	5	2	729	1.5
182	462	662	405	319	199	124	76	56	10	12	4	2329	4.9
160	193	281	132	102	60	36	13	8	8	3	3	839	1.8
170	402	388	246	188	131	104	73	59	12	12	9	1624	3.4
140	83	77	39	22	11	7	6	1	1	-	-	247	0.5
151	19	13	4	2	2	-	-	-	-	-	-	40	0.1
152	123	16	3	2	-	1	-	-	-	-	-	145	0.3
191	88	159	61	58	20	24	6	5	-	1	-	422	0.9
192	278	470	263	159	76	26	9	9	-	-	-	1290	2.7
201	363	425	159	104	49	29	10	3	-	-	-	1142	2.4
202	258	406	194	151	74	40	18	8	1	1	1	1152	2.4
211	557	437	158	121	63	26	12	11	1	-	-	1386	2.9
212	142	76	21	14	8	4	-	1	-	-	-	266	0.6
401	51	70	51	29	16	2	3	3	1	1	-	227	0.5
402	129	144	68	65	53	42	17	25	6	1	-	550	1.2
221	117	132	76	54	19	11	1	-	1	-	-	411	0.9
223	116	120	52	51	31	13	6	3	-	-	1	393	0.8
231	36	51	42	35	17	13	9	1	1	-	-	205	0.4
232	305	443	298	266	151	76	33	13	2	3	1	1591	3.4
241	44	80	52	52	16	9	3	1	2	-	-	259	0.5
242	48	46	38	40	18	14	11	8	2	-	-	225	0.5
243	244	416	302	224	100	53	29	6	2	-	-	1376	2.9
251	69	59	36	21	13	8	2	2	-	-	-	210	0.4
252	32	63	49	41	22	8	6	1	-	-	-	222	0.5
261	96	122	88	69	43	19	13	18	4	1	-	473	1.0
262	204	311	202	144	107	42	17	7	1	1	2	1038	2.2
270	71	305	243	233	103	65	17	9	3	1	-	1050	2.2
280	81	180	172	151	104	58	37	22	11	3	1	820	1.7
290	100	173	148	88	61	32	9	14	1	-	1	627	1.3
301	56	49	51	51	20	6	3	3	-	-	-	239	0.5
302	119	267	188	152	75	28	15	7	2	-	-	853	1.8
310	74	173	124	126	68	23	9	3	2	-	-	602	1.3
370	11	26	16	17	9	4	3	1	-	-	-	87	0.2
321	33	164	141	148	69	29	11	3	4	-	-	602	1.3
322	109	308	244	199	129	54	41	8	5	2	1	1100	2.3
323	1	11	2	10	6	4	1	-	-	-	-	35	0.1

Source: Special Census, New Haven City, 1967.
Note: Partial listing of zones.

Non-White Population by Traffic Zone
New Haven City - 1967

Traffic Zone	Total Population	Non-White	Percent Non-White
12	-	-	-
13	31	9	29.03
21	-	-	-
23	-	-	-
391	144	15	10.41
31	103	33	32.03
32	42	-	-
380	31	16	51.61
60	800	156	19.50
71	990	352	35.55
72	2598	527	20.28
40	3473	368	10.59
51	2852	852	29.87
52	2699	1037	38.42
81	3923	1556	39.66
82	4113	2203	53.56
100	3797	1339	35.26
111	954	279	29.24
112	1851	118	6.37
90	1341	65	4.84
411	762	64	8.39
412	1313	122	9.29
413	1861	882	47.39
121	1825	35	1.91
122	2915	112	3.84
331	2442	29	1.18
332	722	9	1.24
333	397	-	-
334	973	14	1.43
340	3106	51	1.64
351	2933	1355	45.51
352	2968	63	2.12
131	684	14	2.04
361	3639	1781	48.94
362	776	25	3.22
132	1252	56	4.47
133	2760	598	21.66
134	920	85	9.23
181	2294	1136	49.52

Non-White Population by Traffic Zone
New Haven City - 1967

Traffic Zone	Total Population	Non-White	Percent Non-White
182	7276	5969	82.03
160	2625	1847	70.36
170	5322	4345	81.64
140	918	155	16.88
151	2685	80	2.97
152	1996	38	1.90
191	1706	275	16.11
192	3507	756	21.55
201	2626	52	1.98
202	3100	138	4.45
211	3064	147	4.79
212	548	36	6.56
401	616	90	14.61
402	1789	977	54.61
221	1098	92	8.37
223	1033	147	14.23
231	654	289	44.18
232	4781	506	10.58
241	749	84	11.21
242	747	343	45.91
243	3972	279	7.02
251	522	35	6.70
252	677	37	5.46
261	1490	321	21.54
262	3083	69	2.23
270	3475	112	3.22
280	3082	844	27.38
290	1993	23	1.15
301	705	19	2.69
302	2560	5	0.19
310	1879	3	0.15
370	277	8	2.88
321	2032	9	0.44
322	3728	-	-
323	130	-	-
Total	140,729	33,487	23.79

Source: Special Census, New Haven City, 1967.
Note: Partial listing of zones.

Population by Traffic Zone - Sex and Age Groups
New Haven City - 1967

Traffic Zone		0-5	6-14	15	16	17	18	19-21	22-24	25-64	65 & over	Zone Total	Percent of Total
12	Male	-	-	-	-	-	-	-	-	-	-	-	-
	Female	-	-	-	-	-	-	-	-	-	-	-	-
13	Male	-	-	-	-	-	-	-	-	19	12	31	0.0
	Female	-	-	-	-	-	-	-	-	-	-	-	-
21	Male	-	-	-	-	-	-	-	-	-	-	-	-
	Female	-	-	-	-	-	-	-	-	-	-	-	-
23	Male	-	-	-	-	-	-	-	-	-	-	-	-
	Female	-	-	-	-	-	-	-	-	-	-	-	-
391	Male	-	-	-	-	3	33	56	5	14	11	122	0.2
	Female	-	2	-	-	-	-	1	1	7	11	22	0.0
31	Male	6	11	-	-	-	1	1	2	23	3	47	0.1
	Female	10	8	1	1	1	-	3	4	24	4	56	0.1
32	Male	-	1	-	-	-	2	8	4	11	4	30	0.0
	Female	-	-	1	1	-	-	-	1	9	-	12	0.0
380	Male	1	2	1	-	-	-	1	-	9	5	19	0.0
	Female	1	5	1	-	-	1	-	-	4	-	12	0.0
60	Male	11	27	3	-	1	2	19	137	142	19	361	0.5
	Female	23	17	2	1	3	38	190	46	98	21	439	0.6
71	Male	60	90	10	14	9	6	33	18	195	94	529	0.8
	Female	55	67	10	6	7	3	23	25	178	87	461	0.6
72	Male	175	208	15	16	12	15	49	60	543	147	1240	1.8
	Female	169	190	13	19	10	20	64	57	627	189	1358	1.9
40	Male	205	236	24	21	23	20	69	80	728	198	1604	2.4
	Female	200	227	26	17	30	28	97	105	857	282	1869	2.6
51	Male	194	232	20	22	21	18	43	57	591	152	1350	2.0
	Female	196	215	17	23	24	13	75	62	723	154	1502	2.1
52	Male	197	237	22	17	21	21	32	58	563	118	1286	1.9
	Female	190	228	27	18	14	21	60	67	647	141	1413	1.9
81	Male	261	294	20	30	26	34	84	118	740	229	1836	2.7
	Female	262	271	30	29	21	35	108	127	883	321	2087	2.9

Population by Traffic Zone - Sex and Age Groups
New Haven City - 1967

Traffic Zone		0-5	6-14	15	16	17	18	19-21	22-24	25-64	65 & over	Zone Total	Percent of Total
191	Male	43	84	6	12	7	7	20	27	285	72	563	0.8
	Female	47	81	9	5	16	114	359	51	352	109	1143	1.6
192	Male	276	140	10	8	7	11	32	280	853	96	1713	2.5
	Female	250	146	10	18	17	10	74	257	794	218	1794	2.5
201	Male	90	107	9	18	15	10	22	83	562	181	1097	1.6
	Female	95	125	10	9	9	10	45	120	739	367	1529	2.1
202	Male	134	195	20	30	18	19	44	71	700	215	1446	2.1
	Female	131	174	14	18	22	25	54	92	803	321	1654	2.3
211	Male	85	146	11	21	11	20	54	126	705	191	1370	2.0
	Female	99	119	15	19	15	14	60	137	799	417	1694	2.3
212	Male	19	11	3	-	4	5	5	42	150	36	275	0.4
	Female	10	7	2	-	1	1	10	35	124	83	273	0.4
401	Male	33	44	5	5	8	3	17	16	148	30	309	0.5
	Female	28	44	2	2	2	9	8	10	156	46	307	0.4
402	Male	154	223	7	16	10	15	28	39	276	77	845	1.2
	Female	134	211	15	10	15	17	48	36	361	97	944	1.3
221	Male	40	45	2	5	2	6	20	28	252	59	459	0.7
	Female	46	50	5	3	5	9	17	46	335	123	639	0.9
223	Male	50	60	9	7	6	7	19	23	180	95	456	0.7
	Female	54	76	7	13	9	11	23	18	265	101	577	0.8
231	Male	54	55	4	2	5	4	8	13	137	22	304	0.4
	Female	50	60	3	4	5	5	19	19	148	37	350	0.5
232	Male	279	361	29	47	29	29	81	105	1031	239	2230	3.3
	Female	260	383	36	47	42	30	123	134	1174	322	2551	3.5
241	Male	43	44	2	6	10	6	18	21	161	46	357	0.5
	Female	44	48	7	7	6	6	22	14	185	53	392	0.5
242	Male	76	73	4	5	6	9	13	17	162	12	377	0.6
	Female	61	65	2	10	4	4	21	20	165	18	370	0.5
243	Male	227	255	27	41	38	28	73	97	856	213	1855	2.7
	Female	193	273	25	34	31	31	115	110	1025	280	2117	2.9

Population by Traffic Zone - Sex and Age Groups
New Haven City - 1967

Traffic Zone		0-5	6-14	15	16	17	18	19-21	22-24	25-64	65 & over	Zone Total	Percent of Total
82	Male	313	317	26	40	21	29	83	135	817	136	1917	2.8
	Female	346	350	21	24	21	50	137	155	911	181	2196	3.0
100	Male	161	141	13	11	13	8	73	217	873	251	1761	2.6
	Female	123	146	18	6	13	18	104	216	946	446	2036	2.8
111	Male	43	32	6	13	16	13	49	62	237	40	511	0.8
	Female	35	53	-	3	6	29	47	45	147	78	443	0.6
112	Male	16	3	-	1	1	2	37	93	503	206	862	1.3
	Female	25	12	1	1	4	3	52	104	449	338	989	1.4
90	Male	75	77	3	8	9	6	26	29	315	86	634	0.9
	Female	66	53	6	9	4	8	28	41	349	143	707	1.0
411	Male	32	41	5	5	5	2	7	28	162	47	334	0.5
	Female	35	46	4	4	6	5	16	26	201	85	428	0.6
412	Male	62	59	7	3	7	7	23	27	283	111	589	0.9
	Female	49	40	4	8	6	16	39	48	322	192	724	1.0
413	Male	123	125	13	7	5	14	39	62	332	115	835	1.2
	Female	114	135	9	17	11	29	105	67	368	171	1026	1.4
121	Male	80	88	10	13	10	15	36	54	397	118	821	1.2
	Female	83	76	8	10	7	13	50	74	480	203	1004	1.4
122	Male	95	84	10	15	19	28	64	75	576	222	1188	1.8
	Female	97	116	7	8	18	30	99	95	772	485	1727	2.4
331	Male	86	162	22	12	8	13	41	40	519	185	1088	1.6
	Female	79	147	15	19	17	15	48	39	653	322	1354	1.9
332	Male	31	47	3	6	6	-	17	10	157	57	334	0.5
	Female	24	41	6	3	6	3	16	17	183	89	388	0.5
333	Male	22	21	4	-	1	1	9	7	89	28	182	0.3
	Female	21	23	4	2	2	1	6	10	105	41	215	0.3
334	Male	30	92	8	13	8	10	14	7	204	62	448	0.7
	Female	38	108	8	12	8	2	11	14	245	79	525	0.7
340	Male	128	259	33	31	28	17	34	50	774	121	1475	2.2
	Female	145	243	33	33	39	19	46	58	875	140	1631	2.2

Population by Traffic Zone - Sex and Age Groups
New Haven City - 1967

Traffic Zone		0-5	6-14	15	16	17	18	19-21	22-24	25-64	65 & over	Zone Total	Percent of Total
351	Male	226	277	31	17	30	42	73	70	574	81	1421	2.1
	Female	238	277	20	26	24	17	90	66	628	126	1512	2.1
352	Male	93	161	24	28	26	18	66	74	707	188	1385	2.0
	Female	110	190	14	20	24	18	78	101	792	236	1583	2.2
131	Male	20	32	3	3	8	4	19	24	143	43	299	0.4
	Female	22	36	8	3	6	12	31	34	175	58	385	0.5
361	Male	257	386	28	33	21	20	41	45	527	100	1458	2.2
	Female	274	308	20	23	30	176	470	94	657	129	2181	3.0
362	Male	30	35	3	5	6	12	9	12	165	51	328	0.5
	Female	28	37	5	8	7	7	16	20	221	99	448	0.6
132	Male	51	66	10	9	12	27	104	29	248	79	635	0.9
	Female	46	72	8	12	15	10	61	36	288	69	617	0.8
133	Male	107	150	14	20	18	22	62	75	583	168	1219	1.8
	Female	126	145	15	16	20	15	110	101	694	299	1541	2.1
134	Male	40	79	9	9	9	6	12	8	201	61	434	0.6
	Female	35	79	7	6	9	10	12	14	240	74	486	0.7
181	Male	123	183	21	16	25	20	64	39	476	108	1075	1.6
	Female	138	156	16	14	20	25	65	57	564	164	1219	1.7
182	Male	453	572	63	56	67	75	168	180	1512	243	3389	5.0
	Female	463	647	51	57	57	62	236	194	1762	358	3887	5.3
160	Male	150	180	8	19	19	20	86	113	645	130	1370	2.0
	Female	172	159	21	17	14	14	59	68	568	163	1255	1.7
170	Male	406	660	55	44	58	31	91	165	785	170	2465	3.6
	Female	447	602	53	47	42	48	121	140	1103	254	2857	3.9
140	Male	32	38	5	-	6	3	23	102	189	21	419	0.6
	Female	26	31	4	3	2	3	40	160	162	68	499	0.7
151	Male	5	2	-	-	41	316	1545	529	147	3	2588	3.8
	Female	67	3	-	-	-	-	2	7	17	1	97	0.1
152	Male	8	2	-	-	36	375	1197	146	67	22	1853	2.7
	Female	43	1	-	-	-	3	3	5	41	47	143	0.2

Population by Traffic Zone - Sex and Age Groups
New Haven City - 1967

Traffic Zone		0-5	6-14	15	16	17	18	19-21	22-24	25-64	65 & over	Zone Total	Percent of Total
251	Male	29	40	4	4	3	2	6	10	130	47	275	0.4
	Female	19	29	3	2	4	3	12	12	125	38	247	0.3
252	Male	35	51	8	2	13	4	16	19	147	38	333	0.5
	Female	44	44	6	2	8	4	27	15	162	32	344	0.5
261	Male	140	158	14	9	12	9	27	22	244	65	700	1.0
	Female	111	148	11	6	13	6	25	33	343	94	790	1.1
262	Male	165	211	12	26	22	17	55	67	649	177	1401	2.1
	Female	152	221	16	24	27	24	75	73	773	297	1682	2.3
270	Male	257	280	23	20	12	25	47	110	823	89	1686	2.5
	Female	221	254	28	29	34	16	92	172	823	120	1789	2.5
280	Male	235	303	25	21	29	16	60	73	605	112	1479	2.2
	Female	227	313	33	29	19	33	73	88	619	169	1603	2.2
290	Male	96	138	14	11	13	13	43	40	452	120	940	1.4
	Female	112	105	17	16	14	14	55	66	497	157	1053	1.4
301	Male	31	33	6	5	2	5	10	18	174	32	316	0.5
	Female	53	39	6	5	3	10	27	24	178	44	389	0.5
302	Male	182	140	18	18	22	12	51	92	605	132	1272	1.9
	Female	152	159	20	11	19	12	74	82	622	137	1288	1.8
310	Male	92	136	18	12	14	14	30	39	460	98	913	1.3
	Female	69	117	24	17	19	22	48	47	502	101	966	1.3
370	Male	9	21	1	2	1	1	8	12	69	18	142	0.2
	Female	16	11	4	1	1	2	4	9	64	23	135	0.2
321	Male	108	170	13	14	9	13	38	44	502	65	976	1.4
	Female	108	134	24	9	15	16	50	44	566	90	1056	1.4
322	Male	170	307	31	38	27	19	61	67	876	203	1799	2.7
	Female	147	303	19	39	27	17	84	55	970	268	1929	2.6
323	Male	12	12	-	1	1	2	2	3	29	7	69	0.1
	Female	6	12	2	1	2	-	-	1	29	8	61	0.1

Source: Special Census, New Haven City, 1967.
Note: Partial listing of zones.

APPENDIX C

CENSUS TRACT AND BLOCK EQUIVALENTS
1960/1967

Census Tract and Block Equivalents - 1960/1967

Tract	Block 1960	Block 1967
1	1	101
	2	102
	3	103
	4	104
	5	105
	6	111
	7	112
	8	
	9	110
	10	106
	11	107
	12	109
	13	108
	14	113
	18	119
		122
	32	117
		118
	15	114
	16	120
	17	121
	31	115
		116
	33	134
		136
	34	135
	19	123
	20	124
	21	125
	29	132
	30	133
	22	126
	23	
	24	127
	25	128
	26	129
	27	130
	28	131
	35	137
		138
	36	139
	37	140
		141
2	1	101
	4	102
	2	106
	3	
	5	103
	6	104
		105
	29	107
	30	108
	31	
	8	
	7	
	9	109
	28	
	20	110
	10	112
	11	
	19	111
	18	114
	21	116
	22	117
	23	118
	25 *	119
	26 *	120
	13 *	
	17	113
	15*	115
	16*	
3	1	105
		105
	5	106
	2	102
	3	103
	4	104
	6	107
	7	108
	12	206
		205
	13#	207
	10	203
	11	204
	12	208
	13	209
	14	210
	8	201
	9	202
	15	211
		302
	16	
	17	
	18	301
	14	
	15#	
	16#	
	24#	405
	25#	406
	26#	410
	27	410
	20	303
	19	304
	21	308

* Partly in Tract 3 in 1960.
\# Partly in Tract 2 in 1960.

Average Rent by Traffic Zone
New Haven City - 1967

Traffic Zone	$ 0-60	$ 61-90	$ 91-120	$ 121 and over	Total	Percent
12	-	-	-	-	-	-
13	-	-	-	31	31	0.1
21	-	-	-	-	-	-
23	-	-	-	-	-	-
391	101	14	4	3	122	0.4
31	4	18	2	-	24	0.1
32	3	1	-	-	4	0.0
380	11	1	1	1	14	0.0
60	24	67	16	-	107	0.3
71	60	169	65	13	307	1.0
72	124	336	93	63	616	2.0
40	124	491	127	25	767	2.4
51	154	400	62	19	635	2.0
52	155	354	101	13	623	2.0
81	202	522	185	73	982	3.1
82	198	549	243	77	1067	3.4
100	102	815	568	190	1675	5.3
111	119	243	102	37	501	1.6
112	136	296	105	652	1189	3.8
90	35	145	100	19	299	1.0
411	16	93	104	17	230	0.7
412	32	180	127	39	378	1.2
413	57	206	129	57	449	1.4
121	13	139	235	57	444	1.4
122	36	258	512	202	1008	3.2
331	16	77	187	270	550	1.8
332	5	37	24	35	101	0.3
333	1	17	18	12	48	0.2
334	1	8	6	19	34	0.1
340	-	6	134	121	261	0.8
351	43	385	26	20	474	1.5
352	20	145	116	178	459	1.5
131	10	17	48	81	156	0.5
361	93	424	72	258	847	2.7
362	17	54	74	130	275	0.9
132	6	34	76	16	132	0.4
133	31	296	266	139	732	2.3

Average Rent by Traffic Zone
New Haven City - 1967

Traffic Zone	$ 0-60	$ 61-90	$ 91-120	$ 121 and over	Total	Percent
134	1	3	2	5	11	0.0
181	45	206	104	34	389	1.2
182	193	833	430	105	1561	5.0
160	113	280	115	48	556	1.8
170	414	673	290	78	1455	4.6
140	21	93	34	49	197	0.6
151	1	16	2	5	24	0.1
152	26	109	2	1	138	0.4
191	11	51	88	85	235	0.8
192	26	209	307	519	1061	3.4
201	12	127	209	424	772	2.5
202	133	416	134	45	728	2.3
211	143	457	311	118	1029	3.3
212	29	84	66	28	207	0.7
401	44	86	30	13	173	0.6
402	201	219	60	6	486	1.6
221	58	138	79	61	336	1.1
223	102	100	63	18	283	0.9
231	32	91	44	-	167	0.5
232	348	610	88	12	1058	3.4
241	31	115	23	7	176	0.6
242	32	98	42	1	173	0.6
243	312	526	82	6	926	3.0
251	33	85	7	4	129	0.4
252	42	95	13	5	155	0.5
261	138	193	36	4	371	1.2
262	131	390	86	16	623	2.0
270	8	50	263	117	438	1.4
280	36	234	146	9	425	1.4
290	48	125	69	12	254	0.8
301	29	63	42	6	140	0.4
302	72	221	165	69	527	1.7
310	28	81	54	22	185	0.6
370	1	7	11	21	40	0.1
321	3	7	30	85	125	0.4
322	19	87	74	42	222	0.7
323	-	1	-	-	1	0.0

Source: Special Census, New Haven City, 1967.
Note: Partial listing of zones.

Tract	Block 1960	Block 1967
3	28	401
	22	307
	23	306
	24	305
	27	402
	26	403
	29	409
	30	408
	31	407
	34	502
	33	503
	32	504
	35	501
	36	506
	37	505
	38	508
	39	507
	25	404
4	1	101
	2	102
	3	103
	4	309
	5	104
	6	105
	7	106
	8	107
	9	306
	10	307
	11	308
	12	302
	13	303
	14	305
	15	108
	16	109
	17	110
	18	111
	19	112
	20	113
	21	115
	23	304
	24	
	25	301
	26	
	27	208
	28	206
	29	207
	36	
	33	201
	32	202
	35	203
	34	204
	37	205
	22	
	30	114
	31	
5	21	101
	1	102
		103
	19	104
	20	105
	3	501
	2	502
	7	503
		504
	41	505
	10	506
	9	507
	8	508
	16	509
	15	510
	11	511
5	12	512
	13	513
	14	514
	17	515
	18	516
		405
	4	406
		407
	40	403
		404
	38	402
	37	401
	22	107
	23	108
	25	109
	24	106
	26	201
	27	202
	28	203
	29	204
	30	205
	31	206
	32	301
	33	302
	34	303
	35	304
	36	305
	39	306
6	1	101
	2	102
	3	103
	4	408
	5	407
	6	406
	7	405
	8	404
	9	

Tract	Block 1960	1967
	10	403
	11	402
	12	401
	13	104
	14	105
	15	106
	16	107
	17	201
	18	202
	19	203
	20	204
	21	312
	22	310
	23	311
	24	309
	25	308
	26	307
	27	306
	28	305
	29	304
	30	303
	31	302
	32	301
	33	205
	34	206
7	1	101
	2	104
	3	105
	4	406
	5	407
	6	408
	7	501
	8	502
	9	508
	10	503

Tract	Block 1960	1967
	11	504
	12	507
	13	506
	14	505
	15	404
	16	403
	17	402
	18	401
	19	405
	20	106
	21	107
	22	103
	23	102
	24	108
	25	307
	26	201
	27	202
	28	203
	29	204
	30	306
	31	308
	32	309
	33	303
	34	304
		302
	35	301
		305
	36	306
8	1	101
	2	102
	3	408
	4	407
	5	501
	6	502
	7	406

Tract	Block 1960	1967
	8	507
	9	503
	10	504
	11	506
	12	505
	13	401
	14	402
	15	403
	16	405
	17	404
	18	205
	19	103
	20	104
	21	204
	22	201
	23	105
	24	106
	25	202
	26	203
	27	206
	28	207
	29	208
	30	301
	31	302
	33	303
	34	305
	35	306
	36	308
	37	309
	38	310
	39	304
	40	307

Tract	Block 1960	Block 1967
9	1	101
	2	102
	3	103
	4	403
	5	402
	6	404
	7	407
	8	506
	9	507
	10	505
	11	504
	12	508
	13	509
		510
		302
		303
	30	306
		307
		308
		511
	31	304
		305
	32	301
	33	210
	34	208
	35	209
	36	203
	37	202
	14	503
	15	502
	16	501
	17	406
	18	405
	19	401
	20	104
	21	105
	22	106
	23	201
	24	204
		205
	25	206
		207
	26	312
	27	311
	28	310
	29	309
10	1	101
	2	102
	3	509
	4	508
	5	507
	6	506
	7	505
	8	504
	9	503
	10	502
	11	501
	12	103
	13	104
	14	105
	15	106
	16	408
	17	407
	18	406
	99	405
	20	404
	21	403
	23	402
	24	
	22	401
	25	301
	26	302
	27	303
	28	306
	29	305
	30	304
	31	108
	32	107
	33	110
	34	109
	35	111
	36	112
	37	113
	38	204
	40	206
	41	203
	42	202
	43	201
11	1	101
	2	102
	3	210
	4	211
	5	208
	6	207
	7	206
	8	205
	10	202
	11	
	12	209
	13	103
	14	104
	15	105
	16	109
	17	108
	18	106
	20	204
	21	203
	22	212
	25	112
	23	201

Tract	Block 1960	Block 1967
	26	113
	29	107
	30	110
	31	
	32	
	33	
	34	
	35	
	36	
	37	
	38	
	39	
	40	
12	10	508
	67	507
	13	506
	25	501
	24	502
	20	503
	19	504
	14	505
	26	401
	22	402
	17	403
	16	404
	68	405
	18	406
	21	407
	23	408
	39	301
	40	302
	46	303
	45	304
	44	305
	43	306
	42	307

Tract	Block 1960	Block 1967
	41	308
	52	201
	50	202
	51	203
	49	204
	48	205
	47	206
	38	117
	74	
	37	116
	59	105
	61	
	58	111
	5	106
	4	107
	62	104
	63	
	60	
	64	103
	65	
	66	
	55	102
	54	101
	53	
	2	108
	56	109
	57	
	69	110
	32	112
	70	113
	71	
	72	115
	73	
	36	114
13	1	111

Tract	Block 1960	Block 1967
	38	110
	39	101
		102
	40	103
	41	104
	20	105
	11	
	12	
	13	109
	14	
	15	
	16	
	17	112
	33	
	9	107
	10	108
	21	305
	22	304
	23	303
	24	306
	26	302
	27	
	18	
	19	
	25	301
	28	
	29	
	30	
	31	208
	32	207
	34	201
	37	206
	36	205
	44	204
	43	203
	42	202

Tract	Block 1960	Block 1967
14	50	
	4	101
	51	
	52	102
	53	103
	8	104
	9	105
	10	106
	11	107
	12	108
	13	109
	14	110
	15	111
	16	112
	17	113
	18	202
	35	
	19	201
	20	511
	21	510
	22	509
	23	508
	24	507
	25	506
	26	505
	27	504
	28	503
	29	501
	30	502
	31	205
	32	206
	33	207
	34	204
	36	203
	37	208
	38	301
	39	302
	40	303
	41	304
	42	305
	43	306
	44	406
	45	401
	46	405
	47	402
	48	404
	49	403
15	1	101
	2	102
	3	103
	31	104
	32	105
	33	106
	34	107
	44	503
	45	504
	53	507
	54	601
	26	301
	27	302
	30	303
	4	304
	5	305
	6	306
	35	201
	37	202
	36	203
	29	204
	28	205
	25	206
	43	502
	46	505
	52	506
	51	602
	50	603
	56	604
	55	605
	57	606
	58	607
	42	501
	47	
	7	401
	8	402
	10	403
	12	404
	11	405
	9	406
	23	407
	24	408
	22	409
	38	410
	59	701
	49	702
	48	703
	41	704
	39	705
	21	706
	63	707
	19	801
	18	802
	17	803
	62	804
	60	805
	16	806
	15	807
	61	808
	13	809

Tract	Block 1960	Block 1967
16	1	101
	2	103
	3	104
	4	102
	5	301
	6	306
	7	603
	8	604
	9	605
	10	606
	11	
	12	601
	13	602
	14	402
	15	401
	16	305
	17	304
	18	
	19	302
	20	303
	21	
	22	403
	23	404
	24	405
	25	
	26	504
	27	505
	28	506
	29	503
	30	502
	31	501
	32	406
	33	203
	34	204
	35	205
	36	206
	37	106
	38	105
	39	201
17	1	101
	2	102
	3	104
	4	
	5	103
	6	105
	7	106
	8	201
	9	202
	10	405
	11	407
	12	406
	13	402
	16	
	14	401
	15	
	17	403
	18	404
	19	203
	20	204
	21	205
	22	206
	23	304
	24	
	25	305
	26	307
	27	306
	28	
	29	301
	30	302
	31	301
18	1	101
	2	307
	3	308
		309
	4	306
	5	102
	6	103
	7	505
	8	401
	9	304
	10	104
	11	105
	12	303
	13	402
	14	403
	15	404
	16	207
	17	208
	18	405
	19	406
	20	209
	21	407
	22	301
	23	302
	24	107
	25	106
	26	201
	27	202
	31	203
	32	
	29	204
	30	205
		206

Tract	Block 1960	Block 1967
19	45	508
	46	
	2	507
	47	506
	48	
	4	505
	5	504
	6	101
	29	203
	44	-
	7	109
	8	102
	9	108
	10	107
	11	104
	12	103
	13	105
	14	106
	15	410
	16	503
	17	502
	18	501
	19	411
	20	408
	21	407
	22	406
	23	409
	24	303
	25	304
	26	302
	27	201
	28	202
	30	204
	31	207
	32	301
	33	306
	34	305
	35	405
	36	404
	37	403
	38	402
	39	401
	40	308
	41	307
	42	206
	43	205
20	1	101
	2	102
	3	103
	4	104
	5	105
	6	108
	7	107
	8	106
	10	203
	22	204
	23	
	11	201
	12	202
	13	207
		208
	14	206
	15	205
	16	
	17	304
	18	305
	20	301
	21	306
	24	303
	25	302
21	1	101
	2	102
	6	103
		107
	3	
	4	
	5	104
	12	105
	13	106
	16	112
	17	201
	15	202
	24	
	23	
	18	
	19	
	11	
	20	203
	21	204
	22	205
	14	206
	25	
	26	207
	27	
	8	109
	9	110
	10	208
	29	111
	28	
	30	211
	7	108
		210

Tract	Block 1960	Block 1967
22	1	101
	2	205
		102
		103
		204
	2	
	3	
	4	104
	14	
	15	203
	29	206
	28	
	30	207
	26	307
	27	306
	31	208
	33	
	32	
	5	105
	16	202
	6	
	7	106
	11	201
	18	409
	17	405
	25	308
	8	408
	9	407
	10	406
	21	402
	22	401
	20	403
	19	404
	23	310
	24	309
	37	303
	36	304
	35	
	34	305
	38	209
	39	301
		302
	12	107
	13	108
23	13	514
	59	504
		510
		511
	58	503
	11	502
	9	501
	10	506
	8	408
	7	404
	5	407
	6	405
	4	406
	3	103
	2	102
	1	
	21	
	62	101
	45	
	57	
	19	104
	20	105
	27	109
	26	108
	25	106
	24	107
	42	110
	41	
	43	111
	46	113
	47	
	44	112
	60	505
	15	507
	16	403
	17	402
	18	401
	61	510
		509
	32	508
	31	304
	29	306
	28	307
	36	512
	37	513
	38	303
	39	302
	40	301
	52	203
	51	204
	50	205
	49	206
	48	207
	53	202
	54	
	55	201
	56	
24	1	101
	47	102
	3	103
	8	
	11	
	12	503
	13	
	6	106
	7	107
	5	105

Tract	Block 1960	Block 1967
	48	104
	9	108
		109
	10	504
		505
	14	501
		502
	15	507
	16	506
	17	110
	18	111
	49	407
	46	311
	50	307
	31	308
	51	306
	44	305
	25	406
	24	402
	23	401
	22	204
	21	203
	19	201
	20	202
	27	405
	30	
	28	403
	29	404
	32	309
	33	310
	34	205
	35	206
	36	207
	43	304
	42	303
	41	302
	40	301

Tract	Block 1960	Block 1967
	39	210
	38	209
	37	208
25	58	104
	7	105
	3	102
	2	103
	1	101
	8	106
	9	107
	10	108
	16	
	15	617
	63	
	62	
	12	
	59	201
	60	202
	61	
	17	
	64	613
	65	614
	66	615
	67	616
	68	
	20	206
	27	
	28	
	31	207
	30	208
	71	205
	11	
	72	204
	38	301
	39	302
	40	303

Tract	Block 1960	Block 1967
	41	305
	42	306
	43	307
	81	308
	82	309
	51	310
	23	609
	22	610
	69	612
	70	611
	24	608
	25	607
	26	606
	34	601
	76	602
	75	603
	73	605
	74	604
	35	507
	36	506
	37	505
	77	502
	78	501
	45	503
	44	504
	47	407
	48	404
	79	403
	80	402
	57	406
	56	405
	55	401
	54	314
	83	312
	84	313
	52	311

CONTINUED

3 OF 4

Tract	Block 1960	Block 1967
26	3	504
	4	503
	5	505
	8	506
	9	
	10	
	23	502
	24	501
	73	
	74	
	11	509
	12	510
	13	511
	14	512
	15	513
	18	515
	19	516
	25	
	26	
	27	517
	28	
	29	
	30	
	72	519
	71	518
	70	514
	64	101
	65	102
	66	103
	67	104
	68	105
	76	106
	77	107
	31	108
	75	414
		413

Tract	Block 1960	Block 1967
	33	201
	36	
	37	202
	35	203
	78	204
	79	205
	80	206
	81	207
	82	208
	41	209
	42	210
	40	211
		212
	39	213
		214
	52	412
	51	408
	50	406
	49	407
	48	301
	47	304
	83	305
		306
	44	307
		310
		308
	59	309
	58	303
	57	302
	53	411
	54	409
	55	410
	56	405
	60	404
	61	403
	62	402
	63	401
	69	507
		508

Tract	Block 1960	Block 1967
27	75	401
	5	402
	4	403
	3	404
	8	405
	7	406
	6	407
	13	408
	12	409
	19	410
	17	411
	18	
	16	412
	77	413
	78	
	76	309
	99	414
	45	415
	98	417
		418
	96	416
	94	419
	97	
	91	301
	100	307
	48	308
	47	305
	95	306
	52	304
	92	
	58	
	57	
	56	
	55	
	53	
	54	
	101	
	102	
	103	

Block			Block			Block		
Tract	1960	1967	Tract	1960	1967	Tract	1960	1967
	104			85	202		30	115
	105			82	203		31	116
	106	302		83	205		32	117
	107	303			204		99	118
	85			81	206		100	119
	86			90	217		28	201
	87			89	216		24	202
	88			62	219		23	203
	89			61	218		12	204
	90			63	221		11	205
	91			65	215		10	206
	92			67	214		9	207
	93			68	212		8	208
	94			64*			7	209
	95			83*	220		4	210
	96			69*	211		5	211
	74	103		66	213		59	
	25	101		70	210		97	322
		102		71	207		18	
	9	104		72	208		58	323
	10	105		73	209		66	417
	11						37	321
	79	110	28		101		38	320
	80			82	102		39	316
	87	117			105		43	315
	21	109			108		44	314
	22	106		2	103		45	310
	23	107		3	104		48	309
	24	108		15	106		49	308
	27	111		17	107		51	305
	26	112		13	109		101	318
	28	115		14	110		102	319
	29	113		20	111		103	317
	86	116		21	112		104	
	84	114		22	113		41	312
	88	201		29	114		42	313
							46	311

* In Tract 28 in 1960.

Tract	Block 1960	1967
28	47	307
	52	306
	53	304
	55	302
	98	301
	105	
	56	303
	60	401
	65	
	61	402
	62	403
	63	404
	78	406
	79	407
	77	
	107	
	112	405
	70	411
	106	
	109	
	108	408
	110	410
	111	409
	76	412
	75	414
	73	415
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