

CRIME AND VICTIMIZATION IN PORTLAND: A PRELIMINARY
ANALYSIS OF TRENDS, 1971-1974.

by

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CHANGE IN VICTIMIZATION: 1971-72 TO 1973-74

SUMMARY OF FINDINGS

1. A comparison of the victimization rate for burglaries in 1973-74 with the burglary victimization rate in 1971-72 indicates that the rate has declined from approximately 151 per 1000 households to 127 per 1000 households.

2. The proportion of burglaries reported to the police by citizens of Portland during the latter time period had increased significantly over the 1971-72 period with 71% of the burglaries reported in 1973-74 compared to 50% in 1971-72.

3. When changes in the proportion of total burglaries reported to the police are taken into account, the official Portland Police statistics indicate that the burglary rate has declined since 1971-72 rather than increased.

4. The incident rate for rapes, robberies and assaults is not significantly greater in 1973-74 than it was in 1971-72, although the results of the analysis on these crimes is less conclusive than for burglaries. The data indicate a slight, but not statistically significant, increase in these crimes.

5. Short term fluctuations in the crime rate show a remarkable correspondence to fluctuations in the proportion of all crimes reported to the police. This suggests that analysis of short term trends (two months in length to approximately two years) without knowledge of the proportion of crimes reported will be misleading, distorted, and could result in quite erroneous conclusions.

6. Crime Prevention programs which are evaluated on the basis of short-term changes in crime known to the police may receive inadequate evaluations unless reporting habits of the citizens are taken into account. This is particularly true of any program which could result in an increase in citizen reporting of incidents to the police.

PREFACE

The research reported in this document is the first of several reports on Crime and Victimization in the Portland metropolitan area for the period of May 1973 through April 1974. The victimization information was collected from a randomly selected sample of 3950 households in the Portland Metropolitan area. The research was conducted by the Oregon Research Institute, Eugene, Oregon, under a contract from the Oregon Law Enforcement Council and the Law Enforcement Assistance Administration.

Full details about the sample design questionnaire construction, interviewing procedures, coding reliability, and other pertinent aspects of the survey research effort are contained in "The 1974 Portland Victimization Survey: A Report on Procedures."

Other reports scheduled for immediate release are:

"Methodological Approaches to Measuring Short-Term Victimization Trends."

"Description and Preliminary Analysis of Victimization Rates and Probabilities in the Portland Metropolitan Area."

Additional reports and documents are in preparation, and scheduled for publication by March or April, 1975.

VICTIMIZATION SURVEYS: A SUPPLEMENT TO OFFICIAL POLICE STATISTICS

Introduction

The need for accurate information concerning the amount and location of crime has long been recognized by federal, state, and local governments. Official police statistics and the Uniform Crime Reports published by the FBI provide valuable information to local, state, and national officials in their efforts to develop programs and allocate funds to areas with the greatest need for assistance in controlling the crime rates. These statistics, however, are based primarily on reports by victims of crimes. If a citizen does not report a crime to the authorities, then the incident will not be recorded as a part of the official crime rate unless a policeman happens to discover the crime while it is in progress. The underreporting of crime has serious implications for the accuracy of official information about crime rates and about the effectiveness of crime reduction programs.

Of particular concern is the possibility that apparent changes in the official crime rate could be an artifact of changes in the proportion of crimes reported to the police. Substantial evidence is contained in this report that increases in the official crime rates in Portland during 1973-74 correspond very closely to increases in the proportion of crimes reported to the police. Likewise, the evidence indicates that decreases in the official crime rates may correspond to a decline in the proportion of total crimes which are reported. Thus, official crime statistics may not be an adequate description of actual changes in crime rates. Reliance upon possibly inaccurate descriptions of change in total crime could have serious consequences for planning, resource allocation, and other efforts to reduce crimes.

Some types of crime prevention programs specifically include efforts to increase the proportion of crimes reported to the police. Programs which involve the community in the criminal justice system or in self-protection efforts may increase the reporting rate to such an extent that crime in the area will appear to have increased when it actually may have decreased. Such programs may be judged ineffective and funding for them discontinued. Only if the total number of crimes and/or the proportion of crimes reported to the police is known will it be possible to provide accurate and reliable information about the effectiveness of such programs.

Other programs may inadvertently increase the reporting rate. Halfway houses and other community-based treatment centers may increase the reporting of real or imagined incidents to the police, because residents of the area believe that they "know" where the offender resides. The study of police patrolling patterns in Kansas City which produced the conclusion that additional patrolling did not reduce crime could have suffered from this type of problem. If increased patrolling resulted in more incidents being uncovered in progress, or if the presence of additional patrols increased the incentive of citizens to report incidents, then the conclusion that extra patrols were ineffective could be erroneous.

Each police department has its own policies and procedures for processing reports of incidents as they are received, and for classifying and counting the incidents. Although the UCR rules are quite specific, there is little doubt that most police departments code incidents to be compatible with state definitions of crime. Thus, the official statistics may not be as comparable from one police jurisdiction to another as are victimization survey results.

Need for the Survey

Recognition of the potential problems involved in sole reliance upon official police statistics for measuring change in crime rates and for evaluating the Impact programs prompted the Oregon Law Enforcement Council to obtain funds to conduct a victimization survey in the Portland metropolitan area. Funding was obtained from the Federal Law Enforcement Assistance Administration, the city of Portland, and Multnomah County.

Interviews in approximately 4000 households were conducted during the spring and summer of 1974, throughout the Portland metropolitan area (excluding Vancouver, Washington). The major purposes of the research efforts are:

1. To measure the rate of criminal victimization in Portland city, outlying metropolitan areas, and selected areas within the city of Portland for the crimes of rape, assault, robbery, and burglary.

2. To update the 1970 census information for these same areas so that changes in the social and economic characteristics of 1974 can be taken into account when assessing the effectiveness of the Impact programs.

3. To provide follow-up data for the 1972 LEAA-sponsored victimization survey within the city and to permit a limited, short-term assessment of change in victimization since 1971-72.

4. To provide baseline data for future surveys, so that the extent of crime reduction and/or displacement for specified sections of the metropolitan area can be ascertained, and the effectiveness of Impact programs measured with more reliability.

The federal LEAA commissioned a victimization survey for Portland in 1971-72 and may conduct additional ones in the future. The excellent report on the 1972 survey, prepared by the Portland Impact Crime Reduction Program, provides considerable information on the characteristics of victims, the victimization rate for the city of Portland, and the proportion of crimes reported.

The LEAA surveys, however, are designed primarily to provide information to federal officials, and are not sufficient to meet the needs of local and state criminal justice officials. Some of the shortcomings of the surveys, for use by local and state agencies, are:

1. The location of the criminal incident was not coded, and (apparently) the location of the victim's residence within the city was not coded. Thus, the information about victimization is available only for the entire city, and cannot be used to describe victimization patterns or changes for smaller areas within the city. This is a particularly acute problem for Portland, since several area-based experimental programs have been, or will be, implemented. Their evaluation requires victimization and reporting information within specified areas of the city. In addition, it is not possible to use the information for studying whether crime is being displaced from some areas within the city to other areas. The latter problem has considerable significance for local planning efforts in that the areal coverage of a program should be large enough to include areas of probable crime displacement.

2. The LEAA survey was confined to residents of the city, and did not include households in the surrounding metropolitan area. Very little information is available to support or refute the contention that massive infusion of funds to reduce crime within the city will simply result in the offenders turning their attention to the suburban areas. If this is true, however, then crime rates within the city could be reduced at the expense of increased crime rates elsewhere in the metropolitan area.

3. Since the LEAA questionnaire was used in several other cities, no questions tailored specifically to the information needs of local or state administrators were included.

4. Change in crime rates within specified areas of the city could be produced by changes in the social and/or economic characteristics of persons living in the area. This information is important in developing models for small-area predictions of crime rates--a study currently under way at the Oregon Research Institute in conjunction with the analysis of the 1974 survey. The LEAA survey of 1971-72 does not provide this information.

These comments should not be interpreted as criticisms of the LEAA survey, per se, but simply as a recognition that the informational needs of federal officials are not necessarily the same as the needs of local and state officials.

The 1974 survey will be used to assist in the evaluation of all Impact programs by providing more accurate information on trends in the crime rate. Also, the 1974 survey included areas outside of the city of Portland in order to determine whether the infusion of federal funds into the city inadvertently displaced crime outward into the adjacent area around the city, resulting in increased crime rates for the areas not included in the special programs. The 1974 survey and analysis differs from most research in crime trends in that one of the major purposes is to analyze the crime rates in small areas within the city so that the effectiveness of certain Impact programs concentrated within small geographic sections can be determined. Two such programs are of special concern. One of these is a street lighting program in a high-crime section of northeast Portland. This program had not been fully implemented prior to the time covered by the survey, but about 30% of the proposed lights had been installed. The other program of particular interest is a Crime Prevention Bureau anti-burglary program, which attempts to involve the citizenry in self-protection measures and cooperative neighborhood efforts to reduce residential burglary. This effort is city-wide, but meetings within neighborhoods sponsored by the CPB had been concentrated mainly in two areas within the city (census tracts 36.02 and 19).

Although some preliminary evaluation of these two programs is underway and scheduled for publication by March 1975, the 1974 survey data will be used mainly as baseline data for analysis of victimization trends within small areas of the city. Comprehensive reports on the effectiveness of specific Impact programs cannot be conducted until followup data become available in 1975 and 1976.

The purpose of this report is to examine victimization trends since 1971-72 for the city of Portland, and to assess the degree of change in citizen reporting of crimes to the police since 1971-72. The LEAA sponsored victimization survey, conducted by the Census Bureau, covered the time period of July, 1971 through June, 1972. The ORI survey covered the one-year period of May, 1973 through April, 1974.

CHANGE IN VICTIMIZATION

INTRODUCTION

One of the major purposes of the 1974 Victimization survey was to examine whether the federally-funded Impact programs implemented in 1973 and 1974 resulted in fewer incidents of stranger to stranger street crime and burglaries than would have occurred without the Impact programs. In addition, since many of the new programs were not implemented until late 1974, the 1973-74 survey information is to serve as baseline data for future surveys to determine the effectiveness of the programs in reducing target offenses.

It is premature to determine at this time whether the Impact programs have been successful, since many of them have only recently been implemented and none has been in operation long enough to fully assess the difference in victimizations which has resulted since the institution of the programs. Nevertheless, some preliminary analysis can be conducted by comparing the 1974 survey results with the results from a very similar victimization survey conducted by the Census Bureau under authorization from the Law Enforcement Assistance Administration in 1971-72. A comparison of the victimization rates in 1971-72 with those in 1973-74, along with the differences in reporting of crime to the police, can provide some tentative insight into the trend in victimization.

Scope of the Study in Victimization Trends

The Oregon Research Institute victimization survey was designed to permit small-area analysis within the City of Portland and within selected cities and unincorporated urban sections of the metropolitan area. The Census Bureau survey of 1972, which will be used as the comparison for examining change in victimization, was conducted only within the city, and the incidents of victimization were not coded either with the location of the victim or the location of the incident. Thus, there is no way to compare victimization in 1972 and 1974 within any specific areas of the city. The analysis of change in victimization rates has to be confined to the entire city of Portland.

Comparability of the 1972 and 1974 Surveys

Although comparisons of two surveys must always be done with caution, the Oregon Research Institute questionnaire and procedures were patterned

after the ones used by the Census Bureau in 1972 in order to achieve as much comparability as possible.

The Census Bureau survey included all incidents committed against residents of the city regardless of where the incident was committed. To increase comparability, this same procedure was used for "counting" incidents in this report, even though we believe another method of counting incidents--by location of the crime--provides a more accurate description of the victimization patterns. (The latter procedure is used in the final part of this report when changes in the official crime rate during 1973-74 are compared to changes in the proportion of crime reported to the police.)

Incidents of victimization in 1972 were classified by the Census Bureau into a modified Uniform Crime Report system. Since full details of how this was done are not yet available, the incidents from 1972 were grouped into categories consistent with the categories developed for the 1974 data.

The sample drawn by the Census Bureau was a scientifically selected random sample of households. For purposes of small area analysis, the sample design for the 1974 survey over-sampled in certain areas of the city by drawing more households from the area than a random draw would have produced. When the entire city is being analyzed, the interviews within each area are weighted (using ratio weights) so that the sample is representative of the city as a whole. In some areas, the oversampling factor was five to one, in that five times as many households were selected as would have been if a strictly random sample were drawn. To correct for this, a household from such an area would be weighted .20 and an interview from the area would count as one-fifth of a full interview whenever the analysis is conducted at the city-wide level.

Both the 1972 and 1974 sample were selected in accordance with proper scientific standards so that the sampling error can be measured and taken into account when comparing the two surveys. Questions asked of respondents in the Incident Report section of the questionnaire are virtually identical for the 1972 and 1974 surveys, with only a few differences in question wording--none of which exists on questions designed to determine the number or type of incident. (For full details on the comparability of the surveys, see "The 1974 Portland Victimization Survey: A Report on Procedures.")

Although the procedures used in the two surveys are not perfectly identical, the samples were drawn in the same manner, the relevant questions are

identical, and the classification and counting procedures used in 1972 were replicated as precisely as the available information about the first survey would permit. Thus, although the information on change in victimization must be interpreted with some caution because there is always some error in survey data, we believe that sufficient comparability has been achieved to conduct the comparison.

COMPARISON OF INCIDENT RATES: 1971-72, 1973-74

The information in Table 1 reveals that the victimization rate for robberies probably declined between 1971-72 and 1973-74; the rate of assaults increased, and the rate of household burglaries decreased. Although the incident rate for rape in the later time period is 1.58 and the rate in 1972 was 2.36 (per 1000), this decrease is probably a result of sampling error rather than a real change.

The apparent decrease in robberies and increase in assaults could be the result of unknown differences in the methods of classifying these crimes used by the census bureau and the ORI coders. If the census bureau coded some incidents as robberies which would have been coded as assaults in the 1974 study, this could account for the difference in rates. If robberies and assaults are combined, as in row 5 of Table 1, or if all three of the serious personal crimes (rape, robbery, and assault) are combined, the rate for 1974 is still higher, but the difference is not statistically significant. That is, the difference could be the result of sampling error rather than a real change in the victimization rate.

The number of burglaries per 1000 households is lower in 1974 than in 1972, and the difference is statistically significant. In 1971-72, about 15% of the households were burglarized for an estimated total of 21,900 burglaries. In 1973-74, approximately 13% of the households were burglarized for an estimated total of 18,400 burglaries during the year--a reduction of 3000 residential burglaries.

An extensive Crime Prevention Bureau anti-burglary project was initiated in Portland in late 1973. Whether the reduction in burglaries is actually due to the efforts of the CPB, the Portland police and other local agencies involved in burglary reduction efforts cannot be ascertained with finality, because many factors can result in fluctuations in the burglary rate. On the other hand, the information here is consistent with the possibility that CPB efforts, police efforts, or efforts by other agencies and groups, if any, reduced the number of residential burglaries between 1971-72 and 1973-74.

Discussion

The evidence from the 1972 and 1974 victimization surveys indicates that the rate of household burglaries has declined and that the rate of rape, robberies, and assaults is slightly higher in 1974, but the latter difference

Table 1
Comparison of Incident Rates, 1971-72, 1973-74¹

	1972 Incident rate per 1000	1974 Incident rate per 1000	Z value ²	Associated Probability
Rape	2.36	1.58	.75	n.s.
Robbery	14.5	9.8	1.81	.07
Assaults	33.2	40.7	4.08	.0001
Burglary	151	127	2.64	.01
Robbery and Assaults	47.7	50.5	.60	n.s.
Rape, Robbery and Assault	50.06	52.3	.35	n.s.

¹The first survey includes information on victimizations from July 1971 through June 1972. The second survey covered the period of May 1973 through April 1974. For ease of presentation, the earlier time period is referred to as 1972 and the later one as 1974.

²The difference in proportion test from Dixon and Massey, p. 249, was used to calculate the Z value and the significance level of the difference. The figures are converted to proportions to conduct the test.

is not great enough to be beyond the limits of normal sampling error. The following points should be emphasized in relation to the interpretation of these findings and their significance for the Impact program:

1. Crime rates for all types of crimes in virtually all areas of the United States are increasing and have been increasing for many years. Unless the amount of increase in crime which would have occurred without the Impact program is known, there is no way to precisely determine the full effectiveness of any Impact program or other non-Impact crime prevention effort. Even if the rate for rapes, robberies, and assaults is slightly higher in 1974 (and the difference is not statistically significant), this would not necessarily mean the programs designed to reduce these types of crime are ineffective, because the rate for 1974 might have been even greater without the programs.

2. Since the crime rates rarely decrease to any significant extent, a reduction, or the absence of increase, in crime is a major step forward.

3. Conclusions drawn from data produced by even the best designed samples and best designed questionnaires will always be suspected by some persons, and there is a .05 probability that even the statistically significant differences observed in Table 1 are due to sampling variation.

4. When attempting to answer complex and important questions, such as the effectiveness of crime prevention programs, more than one method and one approach should be used in the hope that consistent results will be found regardless of the approach. An alternative procedure for determining whether the victimization rates have changed since 1971-72 is presented in a later section of this report.

CHANGE IN PERCENT OF CRIMES REPORTED TO THE POLICE: 1971-72, 1973-74

The revelation by the National Crime surveys that a substantial amount of the crime in American cities is not reported to the police has generated concern about the non-reporting of incidents, and has resulted in efforts to increase the reporting rate.

The proportion of incidents for each crime type reported to the police in 1974 is compared with the reporting percentage in 1972 (see Table 2).

The most marked difference between 1972 and 1974 is in the proportion of burglaries reported to the police. Half of the burglary incidents in 1972 were reported, whereas 71% were reported in 1974. Both of the survey estimates are subject to sampling error and to respondent error. That is, some respondents may say that they reported the incident when in fact they did not. The latter problem, however, existed in both surveys, and should not have biased the results. The difference in reporting rates is statistically significant as is the difference in reporting for larcenies. The reporting rates for robberies and assaults are slightly higher in 1974 than in 1972, but the differences are not great enough to rule out sampling error as the source of the difference.

The reporting rate for crimes could change if any of the variables which encourage or discourage people from reporting crimes has changed. One of the possible explanations for the marked increase in burglary reporting is that law enforcement agencies and officials have increasingly involved the citizens in anti-crime programs. The neighborhood meetings and self-protection programs may have resulted in a greater willingness to report crimes to the authorities. Attitudes toward law enforcement officials may also be related to reporting, but since the 1972 survey did not include attitudinal questions, there is no way to know whether attitudes of the citizens have become more positive since 1972. Regardless of the explanation, a 21% increase in reporting for burglaries and the 13% increase in reporting for larcenies are indices of greater citizen willingness to report these crimes.

Implications of a Change in Reporting

The implications of an increase in reporting should not be overlooked or minimized. First, the potential burglar who believes that a victim definitely will report the incident to the police should perceive that there

Table 2

Change in Percentage of Incidents Reported
to the Police: 1971-72 to 1973-74

Crimes Against Residents of Portland City

	1972 Percent Reported	1974 Percent Reported
Rape	42%	44%
Robbery	45	52
Assault	37	41
Burglary	50	71*
Larceny	30	43*

* Difference is statistically significant. For burglaries in 1972, the upper confidence interval is about 53%. The lower confidence interval for 1974 is 65%.

is a greater risk involved in a burglary. Higher rates of reporting could act as deterrents to potential offenders and thereby reduce the crime rate. If a burglar or other offender believes that the victim will not bother to report the incident, there is almost no possibility of being apprehended or punished for the crime. When victims do not report crimes to the police, the old adage "crime does not pay" is wrong in a literal sense, because some criminal profited from the crime, and is assured of not being apprehended for it.

A second important factor in the increased reporting is that official crime statistics reflect only reported crimes. If the reporting rate increases, it will appear as if the number of incidents has increased when in fact the number may not have increased. This point is dealt with in detail in a subsequent part of the report.

A third point is that differences across areas in the city in reporting rates could distort the accuracy of information about which areas have the higher and lower crime rates. Official police data on the crime rates for various areas would be incorrect if extensive differences in reporting exist within those areas.

Percent of Crimes Reported to the Police: by Area

The reporting rates for the city, the six suburban cities included in the 1974 survey, and the unincorporated portions of Multnomah, Clackamas, and Washington counties are shown in Table 3. The highest reporting rates for robbery and assault are in the six suburban cities (Gresham, Oregon City, Milwaukee, Lake Oswego, and Hillsboro). The lowest rates are in the county areas, although the percentage for robberies is not much less than Portland (52% vs. 50%). The percentage of assaults reported from the county areas is considerably below the suburban cities and Portland.

For burglaries, Portland has the highest percentage reported, although the six suburban cities also report about 70% of the burglaries, whereas in the county areas only 58% are reported. Larcenies have about the same reporting rate for all areas.

Table 3

Percentage of Incidents Reported to the Police: By Area¹

	Portland 1974	Suburban Counties	Six Suburban Cities	Total Suburban Area
	%	%	%	%
Rape	44	(95)	(33)	(90)
Robbery	52	50	64	54
Assault	41	26	68	34
Burglary	71	58	70	60
Larceny	43	42	43	42

¹Crimes placed in an area by location of incident, not by residence of victim.

CHANGE IN CRIME RATES: ANALYSIS OF OFFICIAL
STATISTICS AND REPORTING TRENDS SINCE 1972

INTRODUCTION

Much concern and some disbelief was expressed after the release of the FBI Uniform Crime Reports in late summer 1974, which showed an alarming increase in index offenses. The increases during the first six months of 1974 over the first six months of 1973 were:

Murder	+	81.8
Rape	+	57.9
Robbery	+	51.3
Aggravated Assault	+	59.4
Burglary	+	26.5

Information prepared by Jim Richardson of the Portland Police Department shows that the increase for at least some of the crimes is an artifact of the comparison period in 1973. That is, the crime rate in the first six months of 1973 was exceptionally low. Richardson describes the figures for this period as "abnormally, inexplicably, and illogically distorted in view of past and subsequent statistics." The rate of increase for the first six months of 1974 is not nearly as marked if a longer time period prior to 1974 is used for the comparison. Nevertheless, there has been a general increase in most of the target offenses in Portland since 1967, and the trend continued during the first part of 1974.

Official crime statistics represent only the incidents reported to the police, and assessments of trends in the crime rate suffer from the fact that official data represents only a portion of all the crime which occurs. With the advent of victimization surveys comes the possibility of using the proportion of crimes reported as a method of supplementing official statistics to obtain a more accurate estimate of trends in the crime rate.

Change in Crime: Burglary

One of the most intriguing findings from this preliminary analysis and comparison of the 1972 and 1974 survey data is that at least some of the apparent increase in crime is not due to an actual increase in the total number of incidents, but to an increased proportion of crimes being reported to the police.

The rate of burglaries, per 1000 households, in Portland since 1971 based on official police department data is shown in Figure 1a. In Figure 1b are the percentages of burglary incidents reported to the police during the time periods covered by the two surveys.

Since the 1972 survey data has been made available only for the entire year, it is not possible to determine the proportion of burglaries reported during each of the four month segments as has been done with the 1974 survey data. Somewhere between the first four months of 1972 and May 1973, the proportion of burglaries reported to the police increased from about 50% to approximately 66% of the total burglary incidents. The sharp increase in burglaries known to the police during September, October, November, and December 1973, is due at least partly to the increase in reporting, which peaked at 79% of the total. Likewise, the decline in percent reported between the end of 1973 and April 1974 is accompanied by a similar decline in the number of burglaries known to the police.

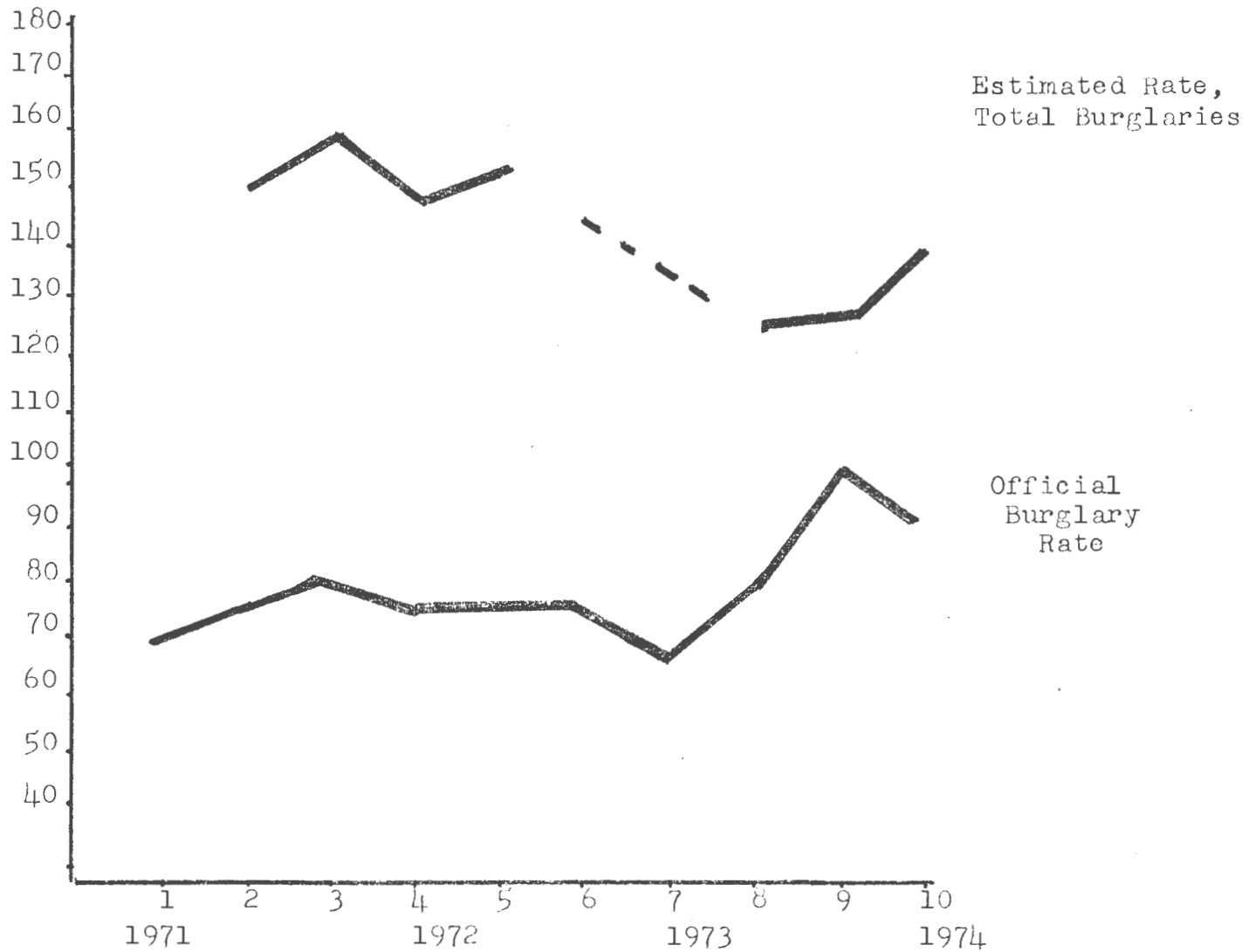
Estimated Trend in Total Burglary

If all the burglaries had been reported to the police during the time span of the two surveys, the burglary trend since 1971 would resemble the line in the upper portion of Figure 2. The official burglary rates are shown in the lower section of the Figure.

The estimate of total burglaries at each time point is calculated by correcting the official data in accordance with the percentage reported to the police. If 50% of all the burglaries are reported and known to the police, then the total number of burglaries is twice the official number-- a situation which existed in 1971-72. As of mid-1973, however, the percent known to the police had increased to 66%, and the total number would be less than in 1971-72.

Clearly, the two estimates result in quite different conclusions about changes in burglary rates. The official statistics indicate an increase in burglaries since 1971. When the official estimates are corrected for differences in the proportion of burglaries reported to the police, the conclusion would be that the burglary rate was lower in 1973 than in 1971 or 1972. Even with the increase during the first four months of 1974, the burglary rate, per 1000 households, is not as high as it was during 1971 and 1972. This conclusion supports the finding reported earlier that the burglary victimization rate was lower in 1973-74 than it was in 1971-72.

Figure 2. Estimated Trend in Total Burglaries: 1971 to 1974



The official burglary rate is based on Portland Police Department data.

The estimated total burglary rate is computed by correcting the official statistics for the proportion which were not reported to the police.

The dotted line indicates that no information is available on the proportion of burglaries reported to the police.

It is not known exactly when the burglary rate began to decline, since no data on proportion of burglaries reported to the police are available for the time period between mid-1972 and mid-1973.

PERCENT OF INCIDENTS REPORTED AND SHORT-TERM TRENDS IN CRIME

The evidence presented in the previous section indicates that the apparent increase in burglaries since 1971 was due entirely to an increase in percentage of total burglaries reported to the police. If an increase in the proportion of incidents reported could produce the illusion of an increased burglary rate over a period extending from mid-1971 through early 1974, it is quite likely that short-term changes in crime rates may also be produced by changes in citizen reporting of incidents, or by changes in the ability of the police to discover crimes in progress.

Burglary

The change in the official burglary rate for the 12-month period beginning May 1, 1973 and ending April 30, 1974 is shown in Figure 3. In the lower portion of Figure 3, the proportion of burglaries committed within the city limits which were reported to the police is shown for the same time points.

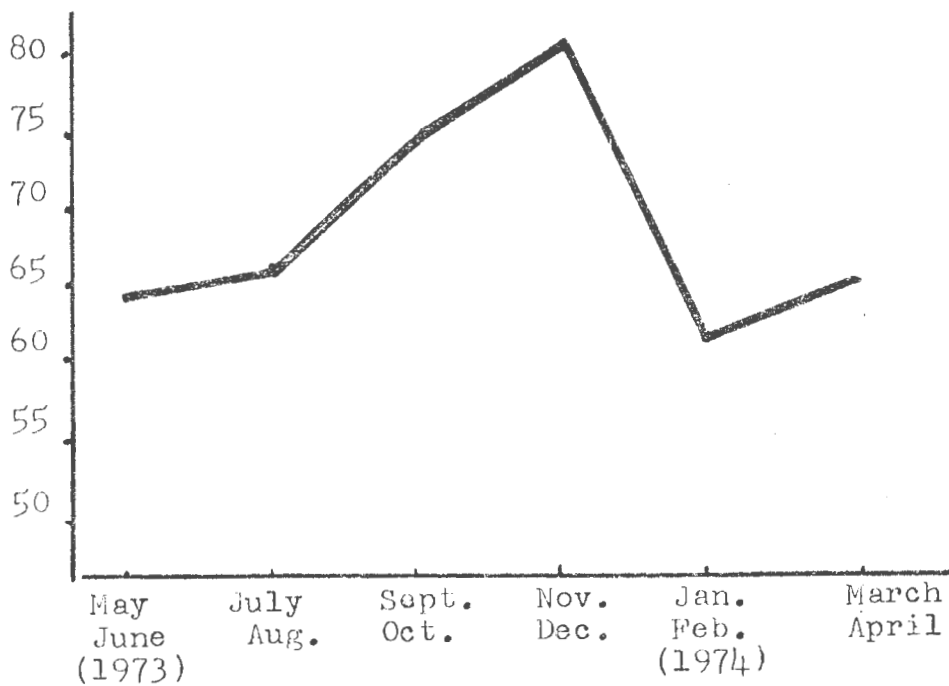
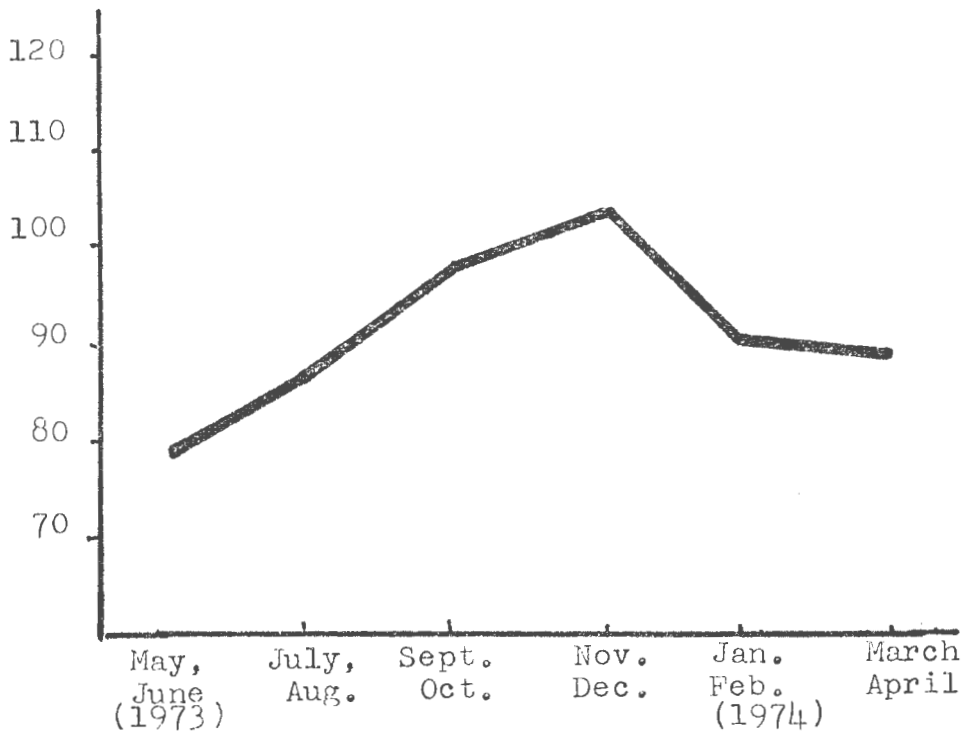
The official burglary rate increased gradually from May, reaching a peak in November and December, 1973. Corresponding to this is an increase in the proportion of all burglaries which were reported to the police. The percentage reported increased gradually, peaked in November and December of 1973, and then declined during the months of January and February.

The correspondence between fluctuations in the official burglary rate and change in the percentage of burglaries reported to the police is obviously very great. This indicates that much of the short-term change in burglary rates (based on official statistics) is attributable to changes in citizen reporting of incidents to the police, or to increased ability by the police to discover burglaries in other ways.

Rape, Robbery, and Assault

The analysis of rape, robbery, and assault in this preliminary report is more limited because of the lack of month-by-month or quarterly data on assaults for 1972. (Information is available only for aggravated assaults. Classification problems are severe when trying to distinguish between aggravated and simple assaults, and the analysis should be conducted on these two types of crime combined.)

Figure 3. Burglary Rate and Percentage Reported: 1973-74



The official crime rate for each two-month segment of 1973-74 is shown for rapes, robberies, and assaults (combined) in Figure 4. A gradual increase can be observed between May 1973 and October, followed by a slight decrease, and then another gradual increase during March and April of 1974.

In the lower portion of Figure 4 are the proportions of these crimes reported to the police during each of the two-month segments. The similarity between the two diagrams is quite clear for the time period beginning in May and ending in February of 1974. During March and April, however, the reporting rate declined sharply, whereas the proportion known to the police increased. If the data from the survey concerning proportion reported to the police are accurate for the last two-month period, the indication is that the total number of rapes, robberies, and assaults increased even more than the official statistics indicate.

The small number of incidents in the survey for any two-month period, however, should caution against firm conclusions about the possible increase in the last two-month segment. The upper confidence interval for percent reported in the last two-month period is 50%. Even then, the observed increase in official data probably cannot be attributed to an increased reporting rate.

Total Crime

The survey data on reporting is more reliable when the actual number of incidents during a time period is greater. To increase the reliability of the survey data, all four major crimes (rapes, robberies, assaults, and burglaries) have been combined, and the rate, per 1000 population, for each two-month period is plotted in Figure 5 (top). The percent reported to the police is shown in the lower portion of Figure 5.

The similarities are again apparent in that the crime rate seems to rise and fall in conjunction with changes in the proportion of crimes reported for the first 10 months. The last two-month segment, however, differs from the general pattern since a decline in reporting corresponds to a slight increase in the official crime rate, indicating that the actual increase during the final two months may have been more substantial than official statistics indicate.

Discussion

The evidence strongly suggests that changes in the official crime rates are produced, at least in part, by changes in the percentage of incidents

Figure 4. Personal Crimes and Percentage Reported: 1973-74

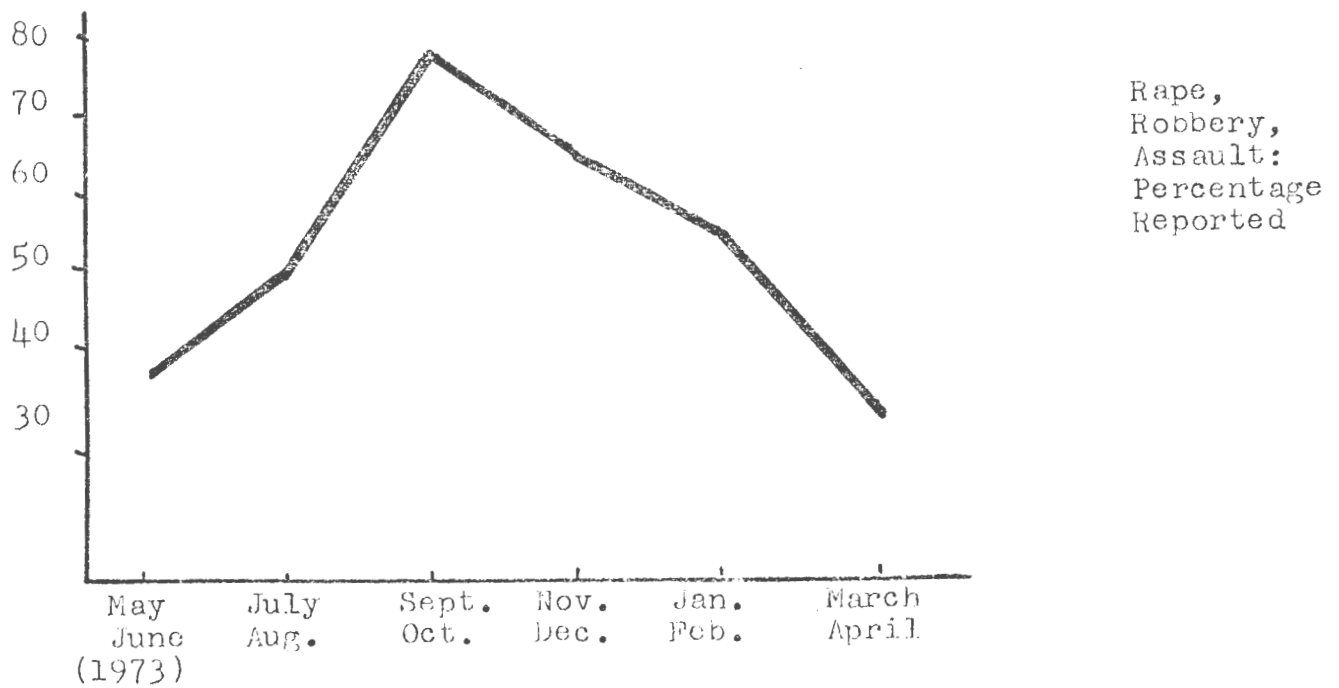
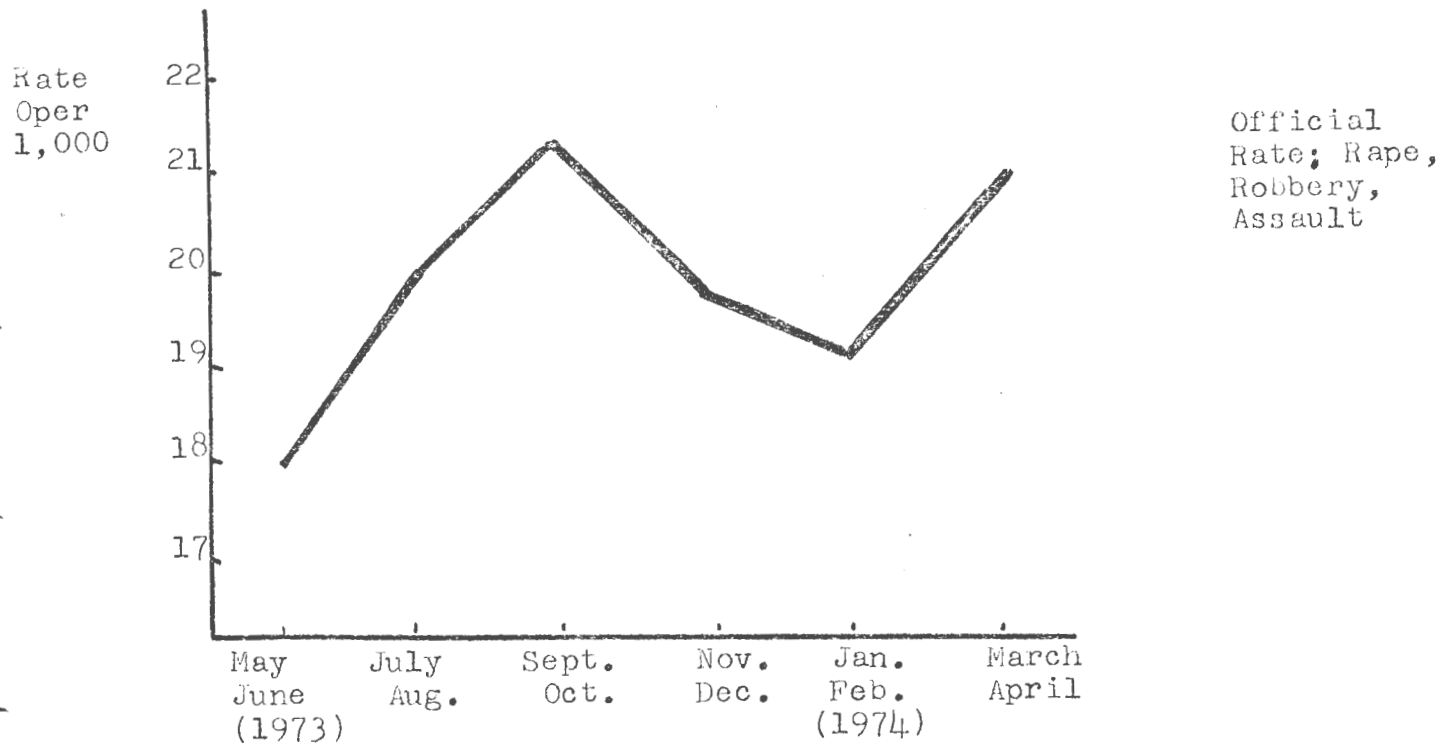
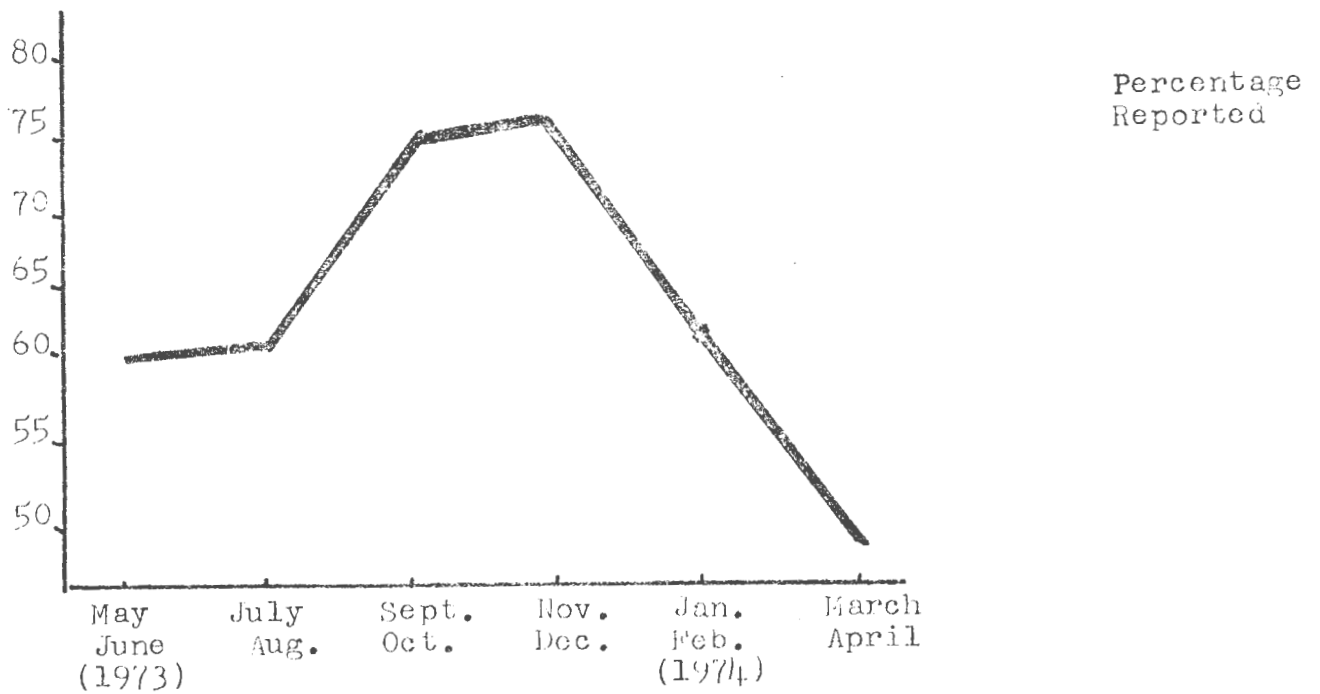
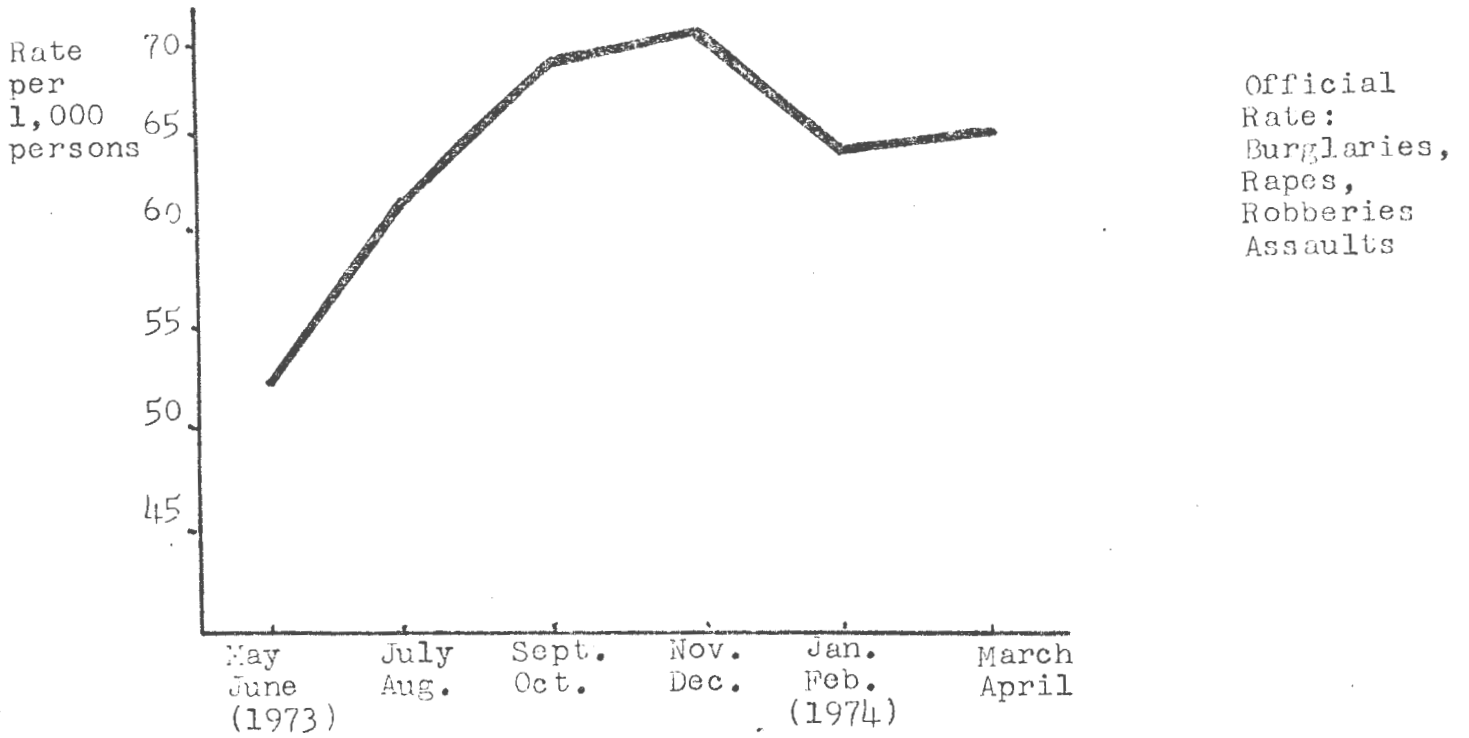


Figure 5. Total Crimes and Percentage Reported



which are reported to the police. If this finding is correct and can be replicated in other studies, the implications are quite serious. It means that official statistics concerning changes in the crime rate cannot be used as a guide for determining whether the total volume of crime has increased or decreased from one time period to another.

Newspaper reports stating that crime in Portland has increased by 10% or 20% or even 60% may mean nothing, except that the citizens are reporting a greater proportion of the incidents to the police than they were in the past.

The use of official crime statistics to pass judgement on the effectiveness of law enforcement officials, the criminal justice system, or the Impact programs is very risky because changes in the official crime rate are not indicative of changes in the total volume of crime. This is not a result of poor police record-keeping or performance concerning statistical analysis, but simply a recognition of what most law enforcement officials have always known: official crime rates represent only the crimes known to the police.

The evidence presented here, however, documents the fact that the percentage of crimes reported to the police is not a constant factor, but subject to considerable variation within two-month to two-year time segments. And, the evidence leads to the conclusion that alternative procedures must be developed in order to obtain accurate indications of the change in both reported and unreported crime.

(The second report in this series, entitled "Methodological Approaches to the Study of Short-Term Victimization Trends," contains a discussion of the methodological problems and the results of preliminary tests for two models designed to permit short-term victimization trend analysis.)

APPENDIX A

DATA SUMMARY, 1974 SURVEY

	No. incidents against Portland city residents		No. incidents occurring in the city		no. of multiple victims of crimes in city
	Weighted	Unweighted	Weighted	Unweighted	Weighted
Rape	3.5	3	5.35	4	2.6
Robbery	21.8	31	19.1	30	.6
Assault	91.0	95	89.8	95	24
Burglary	250.0	276	250.0	277	-

The weighted numbers should be used to calculate incident rates. The weighted number of incidents plus the weighted number of additional victims should be used to calculate the victimization rate which is most comparable to official police statistics.

The burglary rate for Portland residents (250) and the rate within the city (250) is the same only by coincidence. Eleven of the 276 burglaries against Portland residents occurred when the persons lived outside the city. And, twelve of the burglaries within the city were committed against persons who moved to the suburban areas after the burglary, and were interviewed as residents of the suburban areas.

APPENDIX B

MONTH-BY-MONTH DATA SUMMARY: 1974 SURVEY AND OFFICIAL DATA

	Burglaries in the City		Rape, Robbery, Assault in City		Official burglary counts per month
	Weighted Total	Weighted Number Reported	Weighted Total	Weighted Number Reported	
May, 1973	14	12	5	2	1122
June	11	4	.4	0	797
July	14	11	1	1	957
August	9	5	13	6	1141
September	14	7	8	6	1207
October	30	26	1	1	1155
November	25	16	13	11	1225
December	27	26	7	2	1262
January, 1974	7	7	1	1	1065
February	20	10	10	5	1122
March	44	34	26	4	1051
April	26	11	27	11	1091
Total w/specific date	241	169	102.4	50	13,195