

PORTLAND LIGHTING PROJECT

Final Report

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Prepared by the
State Planning Agency
of the
Oregon Law Enforcement Council

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INTRODUCTION 0

In August, 1974, A Preliminary Evaluation of the Portland Lighting Project was published. It reported conclusions based on examination of before and after reported crime rates in target areas, nearby areas into which displacement of crime might have occurred, and nearby, socio-economically similar areas which served as statistical controls. The conclusion was that reported target crimes - night time robberies, assaults, and burglaries - were not reduced in the target areas, or may have increased.

In June, 1975, Oregon Research Institute published Citizen Perceptions of Street Lighting. It reported findings based on their analyses of data collected in two victimization surveys which had been conducted in the Portland area. The first was the Census Bureau's 1972 Victimization Panel Survey within the confines of Portland proper, and the second was a survey they themselves had conducted for the Oregon Law Enforcement Council under a grant from the National Institute of Law Enforcement and Criminal Justice. The second survey was utilized as a sample spanning most of the Portland Standard Metropolitan Statistical Area.

Readers who may not have time to read the full report by Dr. Anne Schneider's group at Oregon Research Institute are directed to the report's "Introduction" (pages 1 and 2) and "Conclusions" (page 6).

CITIZEN PERCEPTIONS OF STREET LIGHTING

by

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June, 1975

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Interviewing for the 1974 survey was conducted by Bardsley and Haslacher, Portland, Oregon. The data analysis is done at the Oregon Research Institute Computing Center, Eugene, Oregon.

INTRODUCTION

A high-crime area in northeast Portland was selected for the addition of approximately \$180,000 of improved or new street lighting during 1973. The objective of the lighting project was to reduce the incidence of night time crimes, especially rape, robbery, assault, and burglary. The most desirable evaluation of such a program would be to determine whether the crime rate decreased below what it would have been if the lights had not been installed. And, in conjunction with such a study, the evaluation should include whether crime was displaced into nearby adjacent areas. It is not possible to conduct an evaluation of the program to provide answers to these questions with the data currently available. The reasons for this statement should be reviewed briefly.

1. Previous research in Portland has indicated that the official crime data are an accurate representation of reported crime, and changes in reported crime, but this same research shows that change in the official crime rates are not reliable indicators of change in total crime (reported and unreported).¹ The proportion of crimes which are reported to the police increased between 1971 and 1974. More critically, the study indicates that the proportion of victims who report incidents to the police tends to fluctuate from month to month as well as from year to year, producing fluctuations in the official crime rate that bear no necessary relationship to changes in the "real" crime rate. Thus, the official data should not be used to determine whether crime decreased after installation of the street lights, because a decrease (or increase) in the official crime rates does not necessarily mean the real crime

rate was decreasing (or increasing). 0

2. Victimization data have been collected at two time points in Portland, but the first survey did not include the geographical location of either the victim's residence or the location of the crime.² Thus, there are no baseline victimization data to use for a comparison with the 1974 survey.
3. The 1974 survey covered a twelve-month recall period beginning in May, 1973.³ Methodological research exploring the use of victimization data for short-term trend analysis has shown some promising results, but the methods have not been used yet on small areas within the city, and additional validation work needs to be undertaken.⁴ Thus, it is not possible at this time to examine change in the victimization rates, although some analysis along this line probably can be conducted in the future.

For these reasons, it is not possible to determine whether crime has been reduced and/or displaced. Nevertheless, the relationship between street lighting and a variety of subjective indicators can be examined.

RESULTS

The first question of interest is whether the people who live in the street lighting area were aware that additional lights had been added in the past year (Table 1). Only 25 percent of the approximately 350 residents interviewed in the area were aware that lights had been added to the streets or parks, and 75 percent said that no lights had been added or that they did not know.

Table 1

INFORMATION ABOUT ADDITIONAL LIGHTING
 (Street Lighting Area Residents Only)

Response	Number	Percent
Yes, lights added to		
Streets	49	16
Parks	13	4
Both	16	5
No lights added	190	62
Don't know	39	13
TOTALS	307	100

Question: Have any street lights been added to the streets or parks in this area during the past year?

Clearly, the addition of the lights is not a very salient matter to the residents. Each respondent in the survey was asked whether they were aware of any special crime prevention programs in the city, and, if so, they were asked to name or describe the program. Only one person out of more than 3,900 interviewed in the metropolitan area mentioned the street lighting project.

Another question of interest is whether the actual number of street lights is related to an individual's perception of how well lighted the area is. In the 1974 survey, the interviewer was asked to count the number of street lights she could see from the front entrance to the respondent's house. In addition, each respondent was asked whether he/she thought that the area was well lighted, fairly well lighted, poorly lighted, or very poorly lighted. The responses to these questions are shown for each of the several geographic sections of Portland in Table 2.

In the street lighting area, the interviewers reported that two or more street lights could be seen from 75 percent of the homes. This percentage is very similar to the percentages reported from all of north Portland, east Portland, the high-emphasis area for the Crime Prevention Bureau, and an area we have called "middle" Portland (see map in Appendix A). Only in southwest Portland are the number of lights substantially lower. In the suburban areas, Gresham, Multnomah County, Hillsboro, and Beaverton all seem to have substantial number of street lights.

In the second column of Table 2 are percentages indicating the proportion of respondents who said that their areas was very well lighted. By this standard, the street lighting area is the most poorly lighted section of the city, as only 43 percent of the respondents said the area is well lighted.

Table 2

REAL LIGHTS AND PERCEPTION OF LIGHTING

Area	% With Two or More Lights	% Very Well Lighted	Gamma
SLP ¹	75	43	.16
CPB ²	78	48	.07
North	72	46	.23
Middle	67	50	.50
East	79	52	.30
Southwest	37	52	.30
Gresham	72	64	.47
Multnomah	70	58	.22
Milwaukee	56	52	.30
Oregon City	40	55	.05
Lake Oswego	34	46	.27
Clackamas	55	45	.32
Hillsboro	87	60	.54
Beaverton	74	64	.02
Washington County	35	56	.03

¹SLP = Street Lighting Project Area

²CPB = Crime Prevention Bureau's High Emphasis Area

In the final column of Table 2 are the gamma values representing the strength of association between the interviewer's count of the number of lights and the respondent's statement of how well lighted the area is. In most areas of the city, respondents who live in better lighted areas tend to say that the area is better lighted, but the relationship is not very strong.

Several implications of these figures should be mentioned. First, the installation of street lights apparently was not noticed by very many persons who lived in the street lighting project section of the city. Thus, one should not anticipate that residents of an area in which the lighting has been increased will immediately begin to feel safer and increase their use of the area because most persons will not know that the area is better lighted than it was before.

Second, an individual's perception of how well lighted the area is depends to some extent on how many street lights there are, but many other factors obviously enter into the person's perception.

Third, the addition of lighting to the project area in northeast Portland resulted in the residential sections of this area being about as well lighted as other parts of northern and eastern Portland. The lights did not improve the lighting in the residential sections above and beyond the lighting which exists in the surrounding areas. (This does not mean that the lighting for non-residential areas follows the same pattern. No one lives in non-residential areas, and, therefore, we did not interview anyone in such areas.) Even if it is true that well lighted areas offer fewer opportunities for victimizations, one should not expect the crime rate in the street lighting section to decline below the rates in other parts of northern and eastern

Portland because the area is not better lighted than the others. The rate might decline below what it would have been without the lights, but one should not expect much when comparing the area with other nearby ones.

Lighting and Feelings of Safety

Only in the street lighting area were there enough people who knew that additional lights had been added to permit an analysis of the effect of new lights on feelings of safety. Of the 79 persons who knew that additional lights had been added, 28 percent said they felt much safer, 14 percent said they felt some safer, and 58 percent said the additional lights had not changed their feelings of safety.

Table 3 shows the relationship between the number of lights, the perception of lighting, and the respondents' statements concerning how safe they would feel outside, at night, in the area where they live.

In the first column are the gamma values representing the effect of the actual number of lights on the respondents' feelings of safety at night. The values are either very low, indicating that the actual number of lights has almost nothing to do with the individual's feeling of safety, or the values are negative, indicating that persons who live in better-lighted areas feel less safe. This is not as illogical as it might seem, since the lights probably are placed in higher crime areas and it is reasonable to believe that persons who live in higher crime areas would feel less safe at night.

In the second column of Table 3 are the gamma values showing the relationship between the respondent's perception of lights and feelings of safety at night. Again, the values are uniformly low and sometimes negative

which suggests that the perception that an area is "well lighted" has very little effect, if any, on the individual's feelings of safety.

In the last column of Table 3 are the proportion of respondents in each area who said that they feel very safe or reasonably safe when walking alone in their neighborhood at night. Persons living in the street lighting area and in the middle section of Portland were least apt to say that they feel safe or reasonably safe and the percentage of respondents who feel safe at night was considerably greater in the suburban areas than in the city.

CONCLUSIONS

Considerably more information about the effect of street lights can be obtained after a follow-up victimization survey. The addition of street lights, even if most residents are not particularly aware of them, could result in decreased crime in the project area since it now (apparently) is about as well lighted as the other surrounding areas. On the other hand, the results at this point are not encouraging. The rationale underlying the installation of street lights is that better lighted areas will result in residents feeling safer and using the streets more frequently. Well-lighted streets, parks, and alleys, combined with an increased number of law-abiding citizens using them presumably would make these areas less inviting locations for crimes. The data, however, indicate that residents are not particularly aware of street lighting and that they do not necessarily feel any safer if the area is better lighted or even if they perceive that the area is better lighted. Thus, the increased use of areas by law-abiding citizens may not be an automatic result of improved street lighting.

Table 3

LIGHTING AND FEELING SAFE

Area	Actual Lights and Feeling Safe at Night	Perception of Lights and Feeling Safe at Night	% Who Feel Very or Reasonably Safe at Night
	gamma	gamma	
SL Area ¹	-.13	.07	45%
CPB ²	.03	.08	58%
North	-.02	.08	52%
Middle	-.04	-.04	40%
East	.07	.01	72%
Southern	-.05	.03	64%
Gresham	.22	.15	80%
Multnomah county	-.10	-.03	73%
Milwaukee	-	.01	77%
Oregon City	.04	-.13	65%
Lake Oswego	-.08	.01	79%
Clackamas County	.01	.08	81%
Hillsboro	.08	.11	79%

¹Street Lighting Area

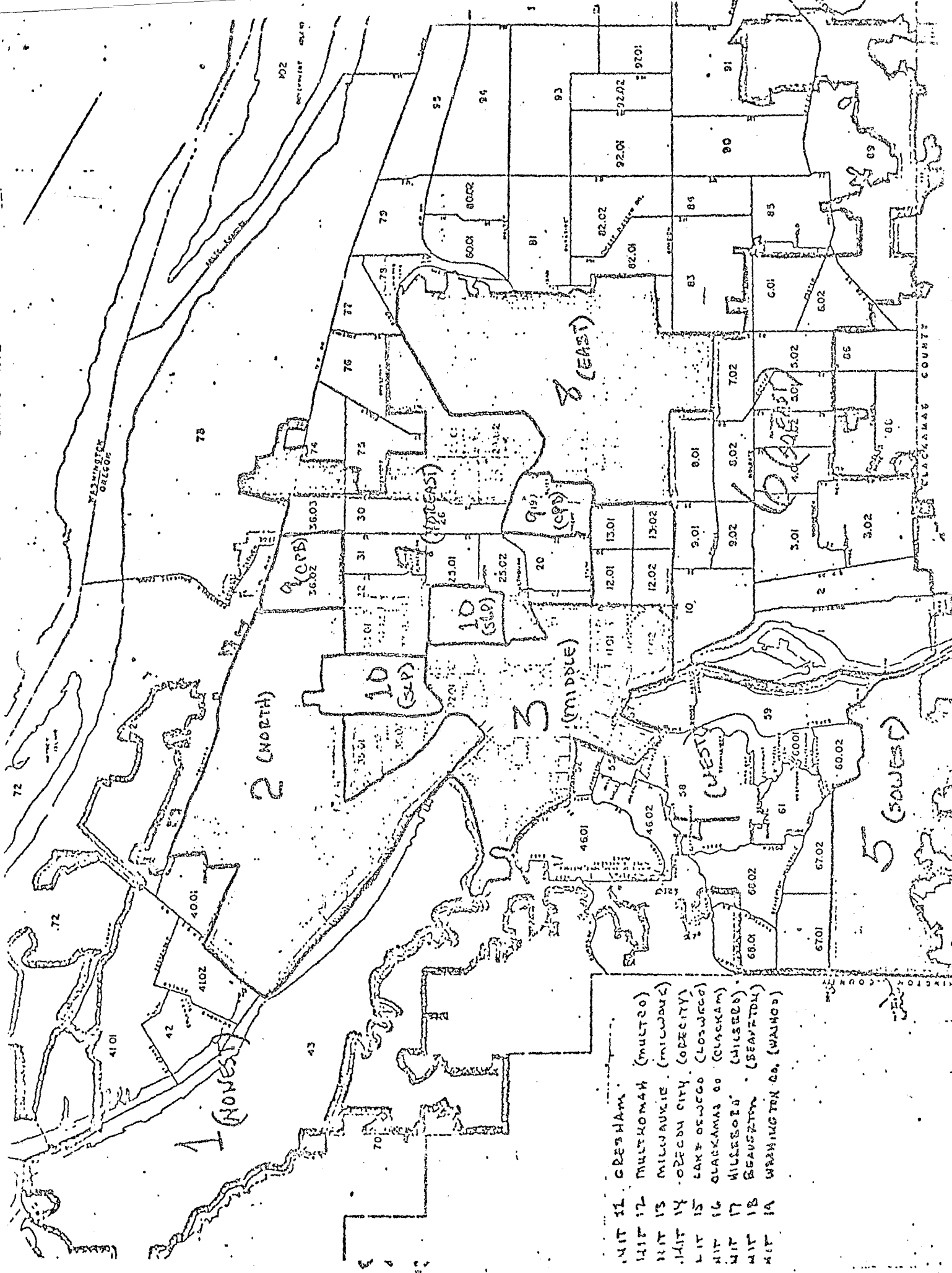
²Crime Prevention Bureau's High Emphasis Area

Footnotes

1. These conclusions are based on victimization survey data. For a full explanation, see Schneider, A.L. Crime and Victimization in Portland: Analysis of Trends, 1971-1974. Occasional Papers in Applied Policy Research, Oregon Research Institute, 1975.
2. The first survey was conducted by the Law Enforcement Assistance Administration in 1973.
3. For further information, see Schneider, A.L. The 1974 Portland Victimization survey: Report on Procedures. Occasional Papers in Applied Policy Research, Oregon Research Institute, 1975.
4. Schneider, A.L. Methodological Approaches for Measuring Short-Term Victimization Trends. Occasional Papers in Applied Policy Research, Oregon Research Institute, 1975.

APPENDIX A
PORTLAND MAP WITH
DEFINED AREAS

THE SURVEYED AREA



- LOT 11 GRESHAM
- LOT 12 MULTNOMAH (MULTRO)
- LOT 13 MILWAUCIE (MILWUBUS)
- LOT 14 OREGON CITY (ORECITY)
- LOT 15 LAKE OSWEGO (OSWEGO)
- LOT 16 CLACKAMAS CO (CLACKAM)
- LOT 17 MILLEBORN (MILSEB)
- LOT 18 BEAUFORTON (BEAFTON)
- LOT 19 WASHINGTON CO. (WALHO)

END

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