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The Bar Hours Change in Anchorage: A Preliminary Study

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Summary

This study, conducted in collaboration with the Salvation Army, Inc., analyzes the impact of a reduction of bar hours in Anchorage, Alaska in October 1981. Prior to the bar hours change, Anchorage bars were closed for only three hours each day. Following the change, bars were closed for eight hours on weekdays and six hours on weekends. Phase I of the study analyzed trends in alcohol distribution and alcohol-related incidents from July 1980 to March 1982. Phase II focused on activities on Fourth Avenue in downtown Anchorage, an area widely perceived as a locus of alcohol-related social disorder. Researchers observed activity in and around Fourth Avenue businesses and conducted semi-structured interviews with employees of designated businesses, social control agents, and emergency service personnel to gather information on perceived positive and negative effects of the bar hours change.

**THE BAR HOURS CHANGE IN ANCHORAGE:
A PRELIMINARY STUDY**



JUSTICE CENTER

**University of Alaska, Anchorage
Anchorage, Alaska**

THE BAR HOURS CHANGE IN ANCHORAGE:

A PRELIMINARY STUDY

by

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April 1982

PREFACE

It is well-known that government at the federal, state and municipal levels often makes policy changes without empirically evaluating the consequences. In these instances, policymakers and citizens are left without valid and reliable information with which to determine the value of governmental policy changes. This lack of evaluation information also creates a knowledge void which may potentially produce irrational decisions regarding future policy direction. In light of these knowledge gaps, the study described herein is considered as a first step in the accumulation of evaluation information related to a recent bar hours ordinance effected by the Municipality of Anchorage, Alaska.

The purpose of the study was two-fold. First, attention was given to uncovering trend shifts in city-wide reported alcohol related incidents that may be correlated in some way to the bar hours change. Because of some citizen concern that this change may be directed at Fourth Avenue, data were also collected to describe alcohol related behavioral patterns in this area of Anchorage following the bar hours change. Study results were assumed to be tentative since only five months elapsed after the bar hours change.

The second purpose of the study was to provide future guidance in conducting a city-wide focused impact evaluation of the bar hours change. The study was also to produce policy relevant questions about alcohol related problems on Fourth Avenue that should be addressed in future research initiatives.

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The authors would like to express appreciation to the number of people who assisted with the study.

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We would also like to thank the research staff assistants who responded to assigned tasks in an expedient and efficient manner. These include Ray Gregory, Marc Adams, Alice Van Tuyl, Bonnie

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Finally, gratitude is extended to all participants of the Fourth Avenue phase of the study. These include the officers of Anchorage Police Department, Community Service Patrol of the Salvation Army, In., Paramedics of the Anchorage Fire Department, security guards and business men and women who work in the Fourth Avenue area.

Knowlton Johnson

Stephen Conn

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SUMMARY AND RECOMMENDATIONS FOR FUTURE RESEARCH

Introduction

On October 15, 1981, the Municipality of Anchorage passed an ordinance to shorten the bar hours. The bar hours change, mandated by the city, moved closing hours for the Anchorage bars from 5:00 a.m. back to 2:30 a.m. and weekend hours from 5:00 a.m. back to 3:00 a.m. Additionally, bars which were formerly permitted to open at 8:00 a.m. were required to open no earlier than 10:00 a.m. every day of the week.

This reduction in bar hours, which was based on a perceived popular demand, was not without controversy. On the one hand, proponents of the ordinance claimed that the bar hours change would alleviate many of the alcohol related problems impacting the city. On the other hand, some opponents simply refuted this claim by contending the change would make no difference. Others not only contended the change would make no difference but also declared that the bar hours reduction was aimed at cleaning up Fourth Avenue, Anchorage's so-called skid row.

In light of the significance of and concern over the bar hours change, the Behavioral Health Division of the Municipality of Anchorage contracted with the Justice Center of the University of Alaska, Anchorage in collaboration with the Salvation Army, Inc., to conduct a preliminary study. This study was intended to be informative and suggestive of future research initiatives which should be undertaken in connection with assessing the impact of the bar hours change.

Methods and Procedures

The study was designed as a two phase, four month project beginning in February of 1982. In Phase I, trend analyses were conducted using statistics provided by the State Department of Revenue, the Anchorage Police Department, and the Salvation Army. Indicators of interest included: alcohol distribution (liquor, beer and wine) for the Third Judicial District; alcohol related police activity (D.W.I., assault, disturbances and other alcohol related calls); and the Community Service Patrol activities involving intoxicated persons. The analysis strategy centered on a visual inspection of percentage change in alcohol distribution and alcohol related service activities comparing the period July 1981 through March 1982 with the parallel months one year earlier.

Phase II of the study focused on the bar hours change as it related to "life on Fourth Avenue." This phase of the study was considered essential because of the controversy generated in public hearings over whether or not the bar hours change was aimed as "cleaning up Fourth Avenue."

The second phase of the study employed an urban anthropological methodology which examined the relationship between the bar hours change and "life on Fourth Avenue." Data were collected by participant observation and by field interviews of business men and women, police officers, community service patrol personnel, paramedics, and security guards. The individuals involved in the study represented a purposive sample of key participants in the

Fourth Avenue area. The analysis of the observational and interview data yielded results which were qualitative and descriptive of the reactions of these particular groups of people to the bar hours change.

Following is a summary of the preliminary results for Phases I and II and recommendations for future research. Because the study is preliminary, the findings are more significant in providing baseline information for future research than being conclusive in and of themselves.

Summary of Phase I Results

1. There was evidence of substantial monthly increases in the total number of Driving While Intoxicated (DWI) incidents between July, 1981 and March 1982 when these monthly incidents were compared with DWI's of the same month one year earlier. These increases in incidents, however, diminished significantly several months after the reduced hours. This pattern of diminishment was particularly noticeable between 1:00 a.m. and 7:00 a.m., a critical six hour period concerning the bar hours change. Also, during the months following the abbreviated bar hours, there tended to be fewer numbers of DWI incidents occurring during the 5:00 a.m. to 7:00 a.m. period than prior to the bar hours change. This finding can be interpreted as a temporal displacement resulting from the shortened bar hours from the previous 5:00 a.m. closing to the new 2:30 a.m. closing time. These trends need to be observed, however, for an extended trial period and analyzed

statistically before definitive statements can be made about the effects the bar hours change has had on DWI incidence.

2. The frequency of assaults and disturbances also increased between July 1981 and March 1982 when compared with the number of incidents occurring in the same months one year earlier. Unlike DWI's, the increases in assaults and disturbances did not diminish after shortened bar hours. It was found, however, that within the 1:00 to 7:00 time period, the highest number of assaults and disturbances occurred between 3:00 a.m. and 5:00 a.m., prior to the bar hours change, and between 1:00 and 3:00 a.m. after the change. This also appears to be a temporal displacement effect but without a change in the frequency of assaults and disturbances after the bar hours change.
3. No shifts were detected in the level of Community Service Patrol activity which paralleled the bar hours change and there was no evidence of a temporal displacement of activity within the 1:00 to 7:00 a.m. period that paralleled the bar hours change.
4. There was no shift in the volume of beer, wine and liquor distributed in the Third Judicial District which paralleled the bar hours change.

Summary of Phase II Results

In regard to an examination of the relationship between the bar hours change and Fourth Avenue activities, data were col-

lected from three groups of participants working in the downtown area. These included social control and emergency personnel (police, security guards, paramedics and Community Service Patrol personnel), businesses that actively seek bar patrol business (bars, cab companies, late closing and early opening businesses) and businesses that actively avoid bar patrons (those closing early and opening late). The study focused on getting an appraisal of whether the bar hours change had a positive, negative or no effect.

1. There were mixed appraisals of the effects of the reduced bar hours between and within the three groups indicated above.
2. Positive effects of the bar hours change were stated more often by police officers and paramedics who had worked or were working in the Fourth Avenue area during the early morning hours. Explanations of these effects included: fewer people being on the street; activities decreasing earlier; and decreases in emergency calls coming from the Fourth Avenue area. There were some positive effects indicated by business and security personnel. These effects included: a sharp decrease in the number of drunks who used the restaurants as a place to wait for the bars to reopen; less harassment by drunks; an increase in cab driver business; and, earlier business closure for those serving essentially the same clientele.
3. Negative effects of early closing were experienced by those businesses that cater to bar patrons. It was indicated by

all bar personnel involved in the study that employees had been laid off. In addition to bar personnel, other businesses in this group felt a monetary loss. Observation and interview data revealed that the earlier closing had a tendency to force persons on the street en masse, whereas it was felt this phenomenon did not exist prior to the change in bar hours.

4. Negative effects of late opening were reported more often by businesses which opened prior to 10:00 a.m. The absence of bar patron traffic had reduced the amount of business and in one case had caused the business to terminate a breakfast oriented business entirely. Early opening businesses were impacted by more drunks "hanging around outside" rather than inside the bars during the early morning hours. Businesses that opened early appeared to group bar patrons and the street people (public inebriates) together.
5. No effect responses were reported by some police, emergency personnel, security personnel, and business persons. In these instances, it appears that the focus was not on patrons of bars, but on the street people of Fourth Avenue.

Recommendations for Future Research

1. The most important recommendation stemming from the preliminary study results reported about is that a rigorous evaluation of the bar hours change is needed. Several requirements of this future evaluation should be met.

- a. Valid and reliable outcome measures for alcohol sales are needed. For example, while alcohol distribution may be an important measure to consider in the impact of the bar hours change, it is necessary to obtain reliable data on alcohol distribution, specifically in the Municipality of Anchorage. Currently, the state requires only that distributors report the volume of sales by judicial districts. It is recommended that legislation or policies be adopted, at either the state or municipal level, to require that additional statistics be maintained on the sale and distribution of alcohol in Anchorage and other municipal subdivisions of the state.
- b. Additional outcome measures which should be considered in a future intensive evaluation are alcohol related traffic accidents and alcohol related emergency services. Traffic data are maintained by the police and emergency service data are kept by the fire department. In our review of these data as well as other police and fire records for the preliminary study, we found a wealth of information dating back several years. The problem is that funds have to be provided for these data to be coded and processed for analysis. An extensive amount of time and personnel are needed to complete these tasks. These agencies have limited personnel available to complete data processing and analysis.
- c. A longitudinal design is needed that takes into con-

sideration the effects of events other than those being evaluated. In evaluating the bar hours change, a multiple interrupted time series design would be appropriate. The basic elements of this design would include the following: two to three years of weekly or monthly statistics on each alcohol related outcome measure, e.g., DWI incidence prior to the bar hours change; at least one year of data on the same outcome measures after the change; and statistics over the same time period on one or more nonalcohol outcome measures. The additional data prior to the bar hours change is necessary to statistically predict what would happen if there was no change in the bar hours. At least one year of data after the bar hours change is necessary in order to determine whether or not the change in incidents is temporary or long lasting. Data on nonalcohol outcome measures are needed as a control in cases where a control group is not available. If, for example, alcohol related accidents were found to drop significantly after the bar hours change and the nonalcohol related did not, this would increase confidence in regard to the effects of the bar hours change, particularly if the reductions occurred during the 1:00 - 7:00 a.m. time period.

- d. An appropriate statistical analysis is a necessary requisite to a rigorous impact evaluation. In the preliminary study a visual inspection method was used which

must be interpreted with extreme caution. A time series analysis, using computerized statistical procedures would be preferable. The University of Alaska has several computer packages that contain such statistical analysis capabilities.

- e. An impact evaluation should be conducted in concert with qualitative research methods which will amplify the understanding of the statistical results. For example, a community survey that centers on eliciting information about alcohol distribution, traffic patterns, drinking patterns, etc., is needed to interpret findings of the impact study focusing on the bar hours change. In addition, case studies should also focus on policy relevant facets of controlling alcohol consumption, e.g., the drinking phenomenon on Fourth Avenue.

2. Another recommendation which stems from the study is that special attention be given to research that focuses on the various social problems of Fourth Avenue. Several specific issues should be addressed.

- a. The bar hour closing hour modifications have changed patterns of movement to and from Fourth Avenue. This finding confirms the need to study the interrelationships on Fourth Avenue between its participants and other realms of urban (and rural) life. There is a need to gauge with greater accuracy what the real impact of shortened bar operation changes has been for patrons and

other realms of urban (and rural) life. There is a need to gauge with greater accuracy what the real impact of shortened bar operation changes has been for patrons and for the community.

- b. An extensive baseline study of Fourth Avenue is needed which describes the networks relating to the rural Alaskan population who reside in Anchorage, both permanent and transient. Descriptions of Fourth Avenue do not match Skid Row descriptions. Yet the connection between Fourth Avenue and Skid Row situations persist, possibly because downtown merchants, the middle class consumers, and press, view this area of Fourth Avenue with revulsion and claim to experience persistent problems from street people.

- c. Business persons who cater to bar patrons can describe with some certainty what impact early closing and late opening have had on their business enterprises. Those business people who seek to avoid problems associated with drinking on and around Fourth Avenue can infrequently distinguish bar patrons from "street people." The latter rarely drink in bars and appear to be less affected by changes in closing and opening hours (even though liquor store hours were also affected). These separate, but partially overlapping, groups are viewed as one by the business community. In future research it is critical that researchers define these separate

groups.

In addition, public policies designed to deal with street people and with bar patrons must be separately structured, implemented and evaluated.

- d. Early bar closing does in fact create the displacement and disbursement of those bar patrons who may have continued to drink for longer periods, and a minority who may have waited for bars to reopen when the gap between closing and opening was three hours and not eight hours. This displacement phenomenon may result in the dispersal of problems normally associated with Fourth Avenue to other places. Future studies should examine this phenomenon more closely.
- e. There is a need to examine incidents of drunk driving before and after closing hours changes were instituted, especially as they occur on the Glenn Highway between Anchorage and Palmer.
- f. The economic change for bars and businesses in their vicinity should be studied.
- g. Research should explore a possible link between early bar closing and violence to women.
- h. A future study should examine Fourth Avenue as it serves as a social center for visitors and residents of Anchorage.

In conclusion, if the recommendation for future research is accepted, more definitive statements can be made about the effects of the Municipal ordinance affecting bar hours and about the relationship of these effects to life on Fourth Avenue. Results will be available which will not only address the extent of impact of reducing the bar hours, but will also aid in understanding the bar hours phenomenon.

SECTION I

Introduction

In February 1982, the Justice Center of the University of Alaska, Anchorage in collaboration with the Salvation Army, Inc., and under a contractual agreement with the Municipality of Anchorage, undertook a study of the bar hours change in the city.¹ The bar hours change, mandated by the city, moved closing hours for the Anchorage bars from 5:00 a.m. back to 2:30 a.m. and weekend hours from 5:00 a.m. back to 3:00 a.m. Additionally, bars which were formerly permitted to open at 8:00 a.m. were required to open no earlier than 10:00 a.m. every day of the week. Before October 15, 1981, Anchorage bars were closed for only three hours each day. After this date, bars were closed for eight hours and six hours respectively for weekdays and the weekend.

There has been a variety of positions proclaimed in regard to the consequences of bar hours being shortened in Anchorage, but two particular ones are most frequently expressed. Proponents of the bar hours change claim that the reduction in bar hours will affect the amount of alcohol consumption and thereby reduce the number of alcohol related incidents in the city. Opponents of the change declare that there will be no effect, with some of these contending that shortening the bar hours was directly aimed at alleviating problems on Fourth Avenue, Anchorage's so-called "skid row."

With the state of controversy in mind, this study can be

viewed as a preliminary inquiry which examines (1) general trends in alcohol related incidents and (2) daily problems on Fourth Avenue, both of these before and after the bar hours change in October, 1981. This is not an impact evaluation concerning shortening the bar hours. Rather, it is a description of patterns of behavior at a number of time periods in reference to the bar hours change.

The project was designed as a two phase, four month study. In Phase I a set of trend analyses focused on statistics that were maintained by selected agencies before and after the bar hours change as well as a comparable period in 1980. Data were collected from three sources in connection with the alcohol related indicators of interest.²

- ° State Department of Revenue
(alcohol distribution data)
- ° Anchorage Police Department
(alcohol related incidents)
- ° The Salvation Army
(Community Service Patrol activity log data)

An interim report was produced in March 1982 which included a preliminary analysis of these data for a three month period following the bar hours change. This analysis has been repeated for the final report using the same types of data covering a five month period after reducing the bar hours.

Phase II of the study addressed patterns of behavior on Fourth Avenue before and after the bar hours change. Data collection methods were used that reflected an urban anthropolog-

ical examination of "life on Fourth Avenue." The analysis relied on information collected by semi-structured and unstructured interviews, participant observation and examination of daily logs. Study participants included police and community service patrol officers who work Fourth Avenue, paramedics, security guards, business employees, and bar employees. While there was an extensive amount of information generated in a short period of time, the study only focused on these several subunits of urban life. Therefore, results from the descriptive analysis are tentative until they can be validated with a more holistic analysis of the urban scene. This would require an indepth examination of salient connection points between "the small scene" and its participants within the larger social setting.

This report is structured as follows. Presented first is a summary of results and recommendations for future research. Section I introduces the study. In Section II trend analysis results are presented that describe alcohol distribution and alcohol related incident patterns. Section III presents results that address the relationship between the bar hours change and life on Fourth Avenue.

SECTION II

Trends in Alcohol Distribution and Alcohol Related Incidents

Introduction

Phase I of the study focused on an analysis of alcohol related record data maintained by the State Department of Revenue, the Anchorage Police Department and the Salvation Army. There were nine alcohol related indicators constructed which focused on alcohol distribution (liquor, wine and beer), police incidents (Driving While Intoxicated (DWI), assaults, disturbances and drunk problem calls), and community service patrol alcohol related activity. For each of these indicators percent change scores were constructed by comparing the monthly quantities from July 1981 to March 1982 with comparable months one year earlier. This provided percent change scores for examining trends that covered a three month period prior to the bar hours change (July 1981 - September 1981), the month of the change (October 1981) and a five month period after the change (November 1981 - March 1982).

In regard to the construction of alcohol distribution indicators, the only available data on alcohol distribution were provided by monthly reports on the number of gallons of liquor, wine and beer which are distributed within each of Alaska's four judicial districts. Neither the Department of Revenue nor the Alcohol Control Board maintains records pertaining solely to Anchorage. Measures were created that represented the distribution in the Third Judicial District in which Anchorage is

located. It was assumed that if Anchorage's sales, which comprise a large portion of the alcohol business in the Third District, were affected, then this effect would be noticed in the total distribution figures.

Police related incident data were compiled by the Police Department, anticipating inquiries in connection with the bar hours change. Percent change scores were examined for DWI, assault, disturbance and other problem calls (e.g., drunk down, drunk in possession of firearm, open bottle in a public place, etc.). In addition, we examined each of the above types of incident according to time of day. This analysis was intended to uncover shifts in incident levels surrounding early evening bar closing and the late morning bar opening times.

An analysis of Salvation Army's Community Service Patrol's (CSP) level of activity involved reviewing records of contacts which were made by the CSP from July 1980 through March 1981 and July 1981 through March 1982. It was assumed that the alcohol availability in bars was related to the patrol's level of activity.

A team of five trained coders prepared the data for computer analysis by compiling daily contacts according to location, time of day, source of complaint and type of service provided. After keypunching and editing the data, total monthly contacts were compiled for comparative purposes. An additional indicator of CSP level of activity was developed that excluded calls which

involved transportation from the Detoxification Center. Since this reduced number of contacts mainly involved persons who were intoxicated, this indicator more accurately reflected CSP's activity which may be bar connected. Finally, as in the case of the police related incidents, total contacts by month and time of day were examined.

The analysis strategy entailed conducting visual inspections for the purpose of detecting noticeable trends for each of the alcohol related indicators in the study. In order to connect any trends to the change in bar hours, we looked for temporal displacement effects within the 1:00-7:00 a.m. time period that surrounded the bar hours change. These effects simply reflect shifts in activity magnitude that parallel the bar hours change. These shifts do not mean impact that can be connected with the bar hours change unless there is a noticeable increasing or decreasing trend associated within the 1:00 to 7:00 a.m. period.

A visual inspection approach is appropriate when making tenuous statements about the impact of a particular change. In order for definitive conclusions to be drawn about the impact of the bar hours change, a sophisticated statistical analysis will have to be conducted using many more time periods.

Results

The trend analysis results focus on indicators of alcohol distribution, alcohol related police activity and alcohol related community service patrol activity. Emphasis is placed on uncovering immediate and delayed shifts after the bar hours change

and on detecting temporal displacement effects during the study period. The discussion of Phase I results includes a brief conclusion and suggest requisites for an impact evaluation of the bar hours change.

Alcohol Distribution

Table 1 on the following page displays the results which were based on available data pertaining to the amount of alcoholic beverages distributed in the judicial district in which Anchorage is located. While more alcohol was distributed between July 1981 and February 1982 than the same period one year earlier, there appears to be no clear trend regarding the magnitude of this increase (% change column).³ That is, percent monthly change in alcohol distribution fluctuated randomly across the time period under study. Because of this finding we saw no need to adjust the distribution figures for the approximate 8% increase in the Anchorage population in 1981.

Alcohol Related Police Activity

Four types of alcohol related police activity were examined that may provide insight into the effect of the bar hours change. These activities are incidents of DWI, assaults (at bars and away from bars) and disturbances (at bars and away from bars) and other alcohol related police activity (e.g., drunk down, drunk in possession of a firearm, open bottle in a public place). Of particular importance in the study were the monthly percent change scores. These scores reflect changes in the number of incidents from July 1981 through March 1982 and the same time period one

Table 1

ALCOHOLIC BEVERAGES DISTRIBUTED OR SOLDIn Third Judicial DistrictBy Type of Alcoholic Beverage by Month and Year (Gallons)

	<u>July</u>			<u>August</u>			<u>September</u>		
	1980	1981	% Change	1980	1981	% Change	1980	1981	% Change
Liquor	70,930	76,550	+ 8	69,313	79,057	+14	62,302	76,441	+23
Wine	76,736	86,281	+12	64,700	85,820	+33	60,408	76,423	+27
Beer	704,934	752,941	+ 7	638,319	658,130	+ 3	490,021	614,701	+25
	<u>October</u>			<u>November</u>			<u>December</u>		
	1980	1981	% Change	1980	1981	% Change	1980	1981	% Change
Liquor	76,052	68,507	- 9	72,596	75,679	+ 4	83,197	91,454	+10
Wine	69,087	76,646	+11	69,908	82,327	+18	92,936	89,525	- 3
Beer	588,228	586,348	-10	388,324	508,334	+31	471,144	567,152	+20
	<u>January</u>			<u>February</u>			<u>March</u>		
	1981	1982	% Change	1981	1982	% Change	1981	1982	% Change
Liquor	54,228	60,248	+11	48,957	53,423	+ 9	Not available		
Wine	54,292	81,639	+50	56,780	60,895	+ 7	"	"	
Beer	436,638	470,074	+ 8	492,090	452,344	- 8	"	"	

year earlier.

Table 2A presents results on DWI incidents by month, year and time of day. Our analysis began with an inspection of the monthly percent changes in total incidents for a 24 hour period and incidents during 1:00-7:00 a.m. which was the time period surrounding the bar hours change. This analysis shows that DWI's have increased at a rate much greater than the approximately 8% increase in population for the same time periods; however, this increase appears to be diminishing from October 1981 through March 1982, particularly during the months of January, February and March of 1982.

A comparison of the monthly percent change in DWI's occurring during the 1:00-7:00 a.m. period with the remaining 18-hour period shows a substantially higher increase in incidents in the former time period than the latter period. Further, we noticed that this monthly percent change diminished sharply for incidents occurring between 1:00 and 7:00 a.m., particularly the percent changes in January, February and March of our study period. In contrast, the percent change fluctuated about the same for incident levels for the remaining 18 hours.

In an effort to gain more understanding of this noticeable trend which seems to parallel the bar hours change, we computed the proportion of incidents over 24 hours which occurred during the 1:00-7:00 a.m. period. Additionally, the analysis focused on the proportion of incidents occurring between 1:00 and 7:00 a.m.

Table 2A

D.W.I. INCIDENTS BY MONTH, YEAR AND TIME OF DAY

	<u>July 1980-81</u>			<u>Aug 1980-81</u>			<u>Sept 1980-81</u>		
	<u>1980</u>	<u>1981</u>	<u>% Change</u>	<u>1980</u>	<u>1981</u>	<u>% Change</u>	<u>1980</u>	<u>1981</u>	<u>% Change</u>
D.W.I.									
1:00-3:00 AM	2	25	+1150	2	38	+1800	4	33	+ 725
3:00-5:00 AM	3	34	+1033	4	34	+ 750	5	40	+ 700
5:00-7:00 AM	1	12	+1100	1	16	+1500	1	12	+ 100
Incidents 1-7 AM	6	71	(+1083)	7	88	(+1157)	10	85	(+ 750)
Other 18 hrs	26	76	(+ 192)	24	67	(+ 188)	19	58	(+ 205)
Total Incidents	32	147	(+ 359)	31	155	(+ 400)	29	143	(+ 393)
	<u>Oct 1980-81</u>			<u>Nov 1980-81</u>			<u>Dec 1980-81</u>		
	<u>1980</u>	<u>1981</u>	<u>% Change</u>	<u>1980</u>	<u>1981</u>	<u>% Change</u>	<u>1980</u>	<u>1981</u>	<u>% Change</u>
D.W.I.									
1:00-3:00 AM	5	31	+ 520	6	39	+ 550	7	34	+ 386
3:00-5:00 AM	6	27	+ 350	4	25	+ 525	3	20	+ 567
5:00-7:00 AM	2	5	+ 150	1	6	+ 500	2	5	+ 150
Incidents 1-7 AM	13	63	(+ 385)	11	70	(+ 536)	12	59	(+ 391)
Other 18 hrs	27	58	(+ 115)	28	40	(+ 43)	23	48	(+ 109)
Total Incidents	40	121	(+ 203)	39	110	(+ 182)	35	107	(+ 206)
	<u>Jan 1981-82</u>			<u>Feb 1981-82</u>			<u>March 1981-92</u>		
	<u>1981</u>	<u>1982</u>	<u>% Change</u>	<u>1981</u>	<u>1982</u>	<u>% Change</u>	<u>1981</u>	<u>1982</u>	<u>% Change</u>
D.W.I.									
1:00-3:00 AM	8	31	+ 288	8	23	+ 188	13	29	+ 123
3:00-5:00 AM	14	17	+ 21	7	15	+ 114	11	16	+ 45
5:00-7:00 AM	6	5	- 17	10	7	- 30	0	9	+ 900
Incidents 1-7 AM	28	53	(+ 89)	25	45	(+ 80)	24	54	(+ 125)
Other 18 hrs	29	79	(+ 172)	35	68	(+ 94)	34	68	(+ 100)
Total Incidents	57	132	(+ 132)	60	113	(+ 88)	58	122	(+ 110)

which occurred in three respective 2 hour time periods 1:00-3:00 a.m., 3:00-5:00 a.m. and 5:00-7:00 a.m. Table 2B shows that when the number of 1:00-7:00 a.m. occurrences are compared with the occurrences during the remaining part of the day, there is a decrease, particularly in incidents during January, February and March 1982. Conversely, the DWI's occurring in the other 18 hour period for the same months remained about the same or increased in number of incidents.

Interestingly, when the number of incidents by 2 hour time periods are examined in relation to the total 1:00-7:00 a.m. occurrence (also Table 2B), we find that the highest percentage of DWI's occurred from 3:00-5:00 a.m. during July through September 1981, the time when the bars were open to 5:00 a.m. However, after September 1981, the highest percentage of DWI's occurred between 1:00 and 3:00 a.m. of the 1:00-7:00 a.m. period. DWI's appear to shift with the change in bar hours. This shift can be interpreted as a temporal displacement effect which is evidence of some connection between DWI incidence and the bar hours change.

Based on these findings, it can be concluded that DWI incidence appears to diminish significantly several months after the bar hours change. While a police policy change, a recent court case concerning a DWI incident, or another environmental change may account for the DWI pattern shift, our evidence suggests that the bar hours change may also be responsible for the shift. It is important to continue examining the DWI incidence

Table 2B

D.W.I. INCIDENTS BY TIME OF DAY COMPARISONS, MONTH AND YEAR

Time Period Comparisons	July 1980-81			Aug 1980-81			Sept 1980-81		
	1980	1981	Change	1980	1981	Change	1980	1981	Change
1-3 AM/1-7 AM	33%	35%	(+ 2)	28%	43%	(+15)	4%	39%	(+35)
3-5 AM/1-7 AM	50%	48%	(- 2)	57%	39%	(-18)	5%	47%	(+42)
5-7 AM/1-7 AM	17%	17%	(0)	14%	18%	(+ 4)	1%	14%	(+13)
1-7 AM/24 hrs	18%	48%	(+30)	23%	57%	(+34)	34%	59%	(+25)
Other 18/24 hrs	81%	52%	(-29)	77%	43%	(-34)	66%	41%	(-25)

Time Period Comparisons	Oct 1980-81			Nov 1980-81			Dec 1980-81		
	1980	1981	Change	1980	1981	Change	1980	1981	Change
1-3 AM/1-7 AM	38%	49%	(+11)	55%	56%	(+ 1)	58%	58%	(0)
3-5 AM/1-7 AM	46%	43%	(- 3)	36%	36%	(0)	25%	34%	(+ 9)
5-7 AM/1-7 AM	15%	8%	(- 7)	9%	9%	(0)	17%	8%	(- 9)
1-7 AM/24 hrs	33%	26%	(- 7)	28%	64%	(+36)	34%	55%	(+21)
Other 18/24 hrs	68%	48%	(-20)	72%	36%	(-36)	66%	45%	(-21)

Time Period Comparisons	Jan 1981-82			Feb 1981-82			March 1981-82		
	1981	1982	Change	1981	1982	Change	1981	1982	Change
1-3 AM/1-7 AM	29%	58%	(+29)	32%	51%	(+19)	54%	54%	(0)
3-5 AM/1-7 AM	50%	32%	(-18)	28%	33%	(+ 5)	46%	30%	(-16)
5-7 AM/1-7 AM	21%	9%	(-12)	40%	16%	(-24)	0	17%	(+17)
1-7 AM/24 hrs	49%	40%	(- 9)	42%	40%	(- 2)	41%	44%	(+ 3)
Other 18/24 hrs	51%	60%	(+ 9)	58%	60%	(+ 2)	59%	56%	(- 3)

rate to determine whether or not the demonstrated trend continues.

Table 3 presents results concerning assaults, disturbances and other alcohol related police activity (e.g., drunk down, drunk in possession of firearm, and open bottle in a public place, etc.). An examination of the monthly percent change scores shows that these types of incidents increased over the nine month study period, but not to the extent or in the same pattern as did DWI's. In addition, there is no apparent trend shift from before to after the bar hour change. Other alcohol related calls did, however, jump from 47 incidents reported in March 1981 to 135 incidents in March 1982 (+187% change).

In regard to assault between 1:00 and 7:00 a.m., Table 4A shows an increase in incidents during the three month period immediately following, which includes the month of the bar hours change (October, November, and December), but this increase diminished for January, February and March 1982. When we examined the incidence of assaults between 1:00 and 7:00 a.m. by two hour time periods, a displacement effect was uncovered. That is, prior to the bar hours change the number of assaults occurring between 5:00 and 7:00 a.m. were about the same. For the same time period after changing the bar hours, we detected that a majority of the monthly percent changes in incidents were substantially lower than the previous year. Although there is some fluctuation distortion, we also noticed that incidence of assaults tended to be higher during the 1:00-3:00 a.m. and

Table 3

POLICE RELATED INCIDENTS BY MONTH AND YEAR

	July 1980-81			Aug 1980-81			Sept 1980-81		
	1980	1981	% Change	1980	1981	% Change	1980	1981	% Change
D.W.I. Total	32	147	+359	31	155	+356	29	143	+393
Assault Total	172	200	+ 16	147	181	+ 23	141	181	+ 28
Disturbance Total	614	704	+ 15	577	766	+ 29	596	649	+ 9
Other Alcohol Related Calls	112	122	+ 9	135	148	+ 10	152	127	+ 17
Total Alcohol Related Calls ¹	930	1173	+ 26	890	1250	+ 40	918	1100	+ 20
	Oct 1980-81			Nov 1980-81			Dec 1980-81		
	1980	1981	% Change	1980	1981	% Change	1980	1981	% Change
D.W.I. Total	40	121	+202	39	110	+182	35	107	+206
Assault Total	140	176	+ 26	126	173	+ 27	121	194	+ 58
Disturbance Total	540	647	+ 20	576	598	+ 4	546	731	+ 34
Other Alcohol Related Calls	119	113	- 5	96	98	+ 2	98	119	+ 21
Total Alcohol Related Calls ¹	839	1057	+ 26	837	979	+ 17	800	1151	+ 44
	Jan 1981-82			Feb 1981-82			March 1981-82		
	1981	1982	% Change	1981	1982	% Change	1981	1982	% Change
D.W.I. Total	57	132	+132	60	113	+ 88	58	122	+110
Assault Total	142	198	+ 47	126	162	+ 29	150	172	+ 15
Disturbance Total	613	669	+ 9	537	568	+ 6	555	647	+ 17
Other Alcohol Related Calls	98	98	0	97	119	+ 23	47	135	+187
Total Alcohol Related Calls ¹	910	1097	+ 21	820	962	+ 17	810	1076	+ 30

¹Computations do not include violations in connection with bar or liquor store businesses.

Table 4A

ASSAULTS BY LOCATION, TIME OF DAY, MONTH AND YEAR

Assaults	July 1980-81			Aug 1980-81			Sept 1980-81		
	<u>1980</u>	<u>1981</u>	<u>% Change</u>	<u>1980</u>	<u>1981</u>	<u>% Change</u>	<u>1980</u>	<u>1981</u>	<u>% Change</u>
<u>1:00-3:00 AM</u>									
away from bars	15	19	+ 27	6	20	+233	14	16	+ 14
at bars	7	5	- 29	3	2	- 33	2	1	- 50
total incidents	22	24	(+ 9)	9	22	(+144)	16	17	(+ 6)
<u>3:00-5:00 AM</u>									
away from bars	6	6	0	5	11	+120	9	10	+ 11
at bars	2	2	0	2	1	- 50	3	1	- 67
total incidents	8	8	(0)	7	12	(+ 71)	12	11	(- 8)
<u>5:00-7:00 AM</u>									
away from bars	11	11	0	9	8	- 11	10	14	+ 40
at bars	1	0	-100	1	1	0	1	0	-100
total incidents	12	11	(- 8)	10	9	(- 10)	11	14	(+ 27)
Incidents 1-7 AM	42	43	(+ 2)	26	43	(+ 65)	39	42	(+ 8)
Other 18 hrs	130	157	(+ 2)	121	138	(+ 14)	102	139	(+ 36)

Table 4A
(continued)

ASSAULTS BY LOCATION, TIME OF DAY, MONTH AND YEAR

	<u>Oct 1980-81</u>			<u>Nov 1980-81</u>			<u>Dec 1980-81</u>		
	<u>1980</u>	<u>1981</u>	<u>% Change</u>	<u>1980</u>	<u>1981</u>	<u>% Change</u>	<u>1980</u>	<u>1981</u>	<u>% Change</u>
Assaults									
<u>1:00-3:00 AM</u>									
away from bars	7	23	+229	16	20	+ 25	11	21	+ 90
at bars	3	4	+ 33	3	2	- 33	1	5	+400
total incidents	10	27	(+170)	19	22	(+ 16)	12	26	(+117)
<u>3:00-5:00 AM</u>									
away from bars	9	18	+100	5	17	+240	7	14	+100
at bars	4	3	- 25	3	1	- 67	2	1	- 50
total incidents	13	21	(+ 62)	8	18	(+125)	9	15	(+ 67)
<u>5:00-7:00 AM</u>									
away from bars	10	4	- 60	6	6	0	11	6	- 46
at bars	1	0	-100	0	0	0	1	0	-100
total incidents	11	4	(- 64)	6	6	(0)	12	6	(- 50)
Incidents 1-7 AM	34	52	(+ 53)	33	46	(+ 39)	33	47	(+ 42)
Other 18 hrs	106	124	(+ 17)	93	127	(+ 37)	88	147	(+ 67)

Table 4A
(continued)

ASSAULTS BY LOCATION, TIME OF DAY, MONTH AND YEAR

Assaults	Jan 1981-82			Feb 1981-82			March 1981-82		
	<u>1981</u>	<u>1982</u>	<u>% Change</u>	<u>1981</u>	<u>1982</u>	<u>% Change</u>	<u>1981</u>	<u>1982</u>	<u>% Change</u>
<u>1:00-3:00 AM</u>									
away from bars	12	17	+ 42	6	12	+100	8	18	+125
at bars	6	3	- 50	3	3	0	2	1	- 50
total incidents	18	20	(+ 11)	9	15	(+ 67)	10	19	(+ 90)
<u>3:00-5:00 AM</u>									
away from bars	14	21	+ 50	9	20	+122	11	11	0
at bars	2	3	+ 50	2	0	-100	2	1	- 50
total incidents	16	24	(+ 50)	11	20	(+ 83)	13	12	(- 8)
<u>5:00-7:00 AM</u>									
away from bars	7	7	0	6	4	- 33	8	5	- 38
at bars	0	0	0	2	0	-100	0	0	0
total incidents	7	7	(0)	8	4	(- 50)	8	5	(- 38)
Incidents 1-7 AM	41	51	(+ 24)	28	39	(+ 39)	31	36	(+ 16)
Other 18 hrs	101	147	(+ 46)	98	123	(+ 26)	119	136	(+ 14)

3:00-5:00 a.m. time periods after the bar hours change. This temporal displacement can also be seen when the proportion of incidents per two hour period was compared with the total 1:00-7:00 a.m. period (Table 4B).

An interpretation of these findings concerning assaults is that this type of incident appears to be connected with the bar hours change. However, unlike DWI's, for assault incidents there was no indication of a diminishing trend.

We also examined disturbances occurring during the 1:00-7:00 a.m. time period (Tables 5A and B). Due to the fluctuation in monthly percent change scores before and after the bar hours change during this period, we concluded that there was no trend which could be detected by visual inspection.

There appears, however, to be a decrease in incidence of disturbance during the 5:00-7:00 a.m. time period after the bar hours change. Conversely, an increase was observed in incidence between 1:00 and 5:00 a.m., particularly incidents occurring away from bars. This temporal displacement pattern is similar to the pattern of assault incidents in Table 5B. When we inspected in Table 5B the proportion of incidence of disturbances occurring between 1:00 and 7:00 a.m. as compared with the 24 hour period, it appeared that there is a slight reduction in incidents after the bar hours change, but not enough difference from before the bar hours change pattern to note a definite trend. However, the displacement effect that was observed in Table 5A was substantiated in the results reported in Table 5B.

Table 4B

ASSAULT INCIDENTS BY TIME OF DAY COMPARISONS, MONTH AND YEAR

Time Period Comparisons	July 1980-81			Aug 1980-81			Sept 1980-81		
	1980	1981	Change	1980	1981	Change	1980	1981	Change
1-3 AM/1-7 AM	52%	56%	(+ 4)	35%	51%	(+16)	41%	40%	(- 1)
3-5 AM/1-7 AM	19%	19%	(0)	27%	28%	(+ 1)	31%	26%	(- 5)
5-7 AM/1-7 AM	29%	26%	(- 3)	38%	21%	(-17)	28%	33%	(+ 5)
1-7 AM/24 hrs	24%	22%	(- 2)	18%	24%	(+ 6)	28%	23%	(- 5)
Other 18/24 hrs	76%	79%	(+ 3)	82%	76%	(- 6)	72%	77%	(+ 5)

Time Period Comparisons	Oct 1980-81			Nov 1980-81			Dec 1980-81		
	1980	1981	Change	1980	1981	Change	1980	1981	Change
1-3 AM/1-7 AM	29%	52%	(+23)	58%	48%	(-10)	36%	55%	(+19)
3-5 AM/1-7 AM	38%	40%	(+ 2)	24%	39%	(+15)	27%	32%	(+ 5)
5-7 AM/1-7 AM	32%	8%	(-24)	18%	13%	(- 5)	36%	13%	(-23)
1-7 AM/24 hrs	24%	30%	(+ 6)	26%	27%	(+ 1)	27%	24%	(- 3)
Other 18/24 hrs	76%	70%	(- 6)	74%	73%	(- 1)	73%	76%	(+ 3)

Time Period Comparisons	Jan 1981-82			Feb 1981-82			March 1981-82		
	1981	1982	Change	1981	1982	Change	1981	1982	Change
1-3 AM/1-7 AM	44%	39%	(- 5)	32%	38%	(+ 6)	32%	53%	(+21)
3-5 AM/1-7 AM	39%	47%	(+ 8)	39%	51%	(+12)	42%	33%	(- 9)
5-7 AM/1-7 AM	17%	14%	(- 3)	28%	10%	(-18)	26%	14%	(-12)
1-7 AM/24 hrs	29%	26%	(- 3)	22%	24%	(+ 2)	21%	21%	(0)
Other 18/24 hrs	71%	74%	(+ 3)	78%	76%	(- 2)	79%	79%	(0)

Table 5A

DISTURBANCES BY LOCATION, TIME OF DAY, MONTH AND YEAR

Disturbances	July 1980-81			Aug 1980-81			Sept 1980-81		
	<u>1980</u>	<u>1981</u>	<u>% Change</u>	<u>1980</u>	<u>1981</u>	<u>% Change</u>	<u>1980</u>	<u>1981</u>	<u>% Change</u>
<u>1:00-3:00 AM</u>									
away from bars	74	77	+ 4	77	90	+ 17	73	69	- 5
at bars	12	13	+ 8	14	16	+ 14	19	10	- 47
total incidents	86	90	(+ 5)	91	106	(+ 16)	92	79	(- 14)
<u>3:00-5:00 AM</u>									
away from bars	52	60	+ 15	55	61	+ 11	46	41	- 11
at bars	10	18	+ 80	19	11	- 42	13	9	- 31
total incidents	62	78	(+ 26)	74	72	(- 3)	59	50	(- 15)
<u>5:00-7:00 AM</u>									
away from bars	61	53	- 13	39	57	+ 46	29	44	+ 52
at bars	3	5	+ 67	3	2	- 33	3	2	- 33
total incidents	64	58	(- 9)	42	59	(+ 40)	32	46	(+ 44)
Incidents 1-7 AM	212	226	(+ 6)	207	237	(+ 14)	183	175	(- 5)
Other 18 hrs	402	478	(+ 19)	370	529	(+ 43)	413	474	(+ 15)

Table 5A
(continued)

DISTURBANCES BY LOCATION, TIME OF DAY, MONTH AND YEAR

	Oct 1980-81			Nov 1980-81			Dec 1980-81		
	<u>1980</u>	<u>1981</u>	<u>% Change</u>	<u>1980</u>	<u>1981</u>	<u>% Change</u>	<u>1980</u>	<u>1981</u>	<u>% Change</u>
Disturbances									
<u>1:00-3:00 AM</u>									
away from bars	55	91	+ 65	77	98	+ 27	66	95	+ 44
at bars	18	13	- 28	23	18	- 22	9	6	- 33
total incidents	73	104	(+ 42)	100	116	(+ 16)	75	101	(+ 35)
<u>3:00-5:00 AM</u>									
away from bars	45	62	+ 38	48	67	+ 40	52	86	+ 65
at bars	19	5	- 74	17	3	- 82	15	2	- 87
total incidents	64	67	(+ 5)	65	70	(- 8)	67	88	(+ 31)
<u>5:00-7:00 AM</u>									
away from bars	31	36	+ 16	118	23	- 52	42	48	+ 14
at bars	1	2	+100	2	0	-100	3	1	- 67
total incidents	32	38	(+ 18)	50	23	(- 54)	45	49	(+ 9)
Incidents 1-7 AM	169	209	(+ 24)	215	209	(- 3)	187	238	(+ 27)
Other 18 hrs	371	438	(+ 18)	361	389	(+ 8)	359	493	(+ 37)

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Table 5A
(continued)

DISTURBANCES BY LOCATION, TIME OF DAY, MONTH AND YEAR

	Jan 1981-82			Feb 1981-82			March 1981-82		
	1981	1982	% Change	1981	1982	% Change	1981	1982	% Change
Disturbances									
<u>1:00-3:00 AM</u>									
away from bars	82	95	+ 16	69	68	- 1	76	91	+ 20
at bars	15	24	+ 60	10	8	- 20	12	17	+ 42
total incidents	97	119	(+ 23)	79	76	(- 4)	88	108	(+ 23)
<u>3:00-5:00 AM</u>									
away from bars	60	73	+ 22	44	79	+ 80	47	72	+ 53
at bars	23	5	- 78	11	1	- 91	13	1	- 92
total incidents	83	78	(- 6)	55	80	(+ 45)	60	73	(+ 22)
<u>5:00-7:00 AM</u>									
away from bars	54	36	- 33	44	20	- 55	48	25	- 48
at bars	6	0	-100	2	0	-100	1	0	-100
total incidents	60	36	(- 40)	46	20	(- 57)	49	25	(- 49)
Incidents 1-7 AM	240	233	(- 3)	180	176	(- 3)	197	206	(+ 5)
Other 18 hrs	373	436	(+ 17)	397	392	(- 1)	358	441	(+ 23)

Table 5B

DISTURBANCE INCIDENTS BY TIME OF DAY COMPARISONS, MONTH AND YEAR

Time Period Comparisons	July 1980-81			Aug 1980-81			Sept 1980-81		
	1980	1981	Change	1980	1981	Change	1980	1981	Change
1-3 AM/1-7 AM	41%	40%	(- 1)	44%	45%	(+ 1)	50%	45%	(- 5)
3-5 AM/1-7 AM	29%	35%	(+ 6)	36%	30%	(- 6)	32%	29%	(- 3)
5-7 AM/1-7 AM	30%	26%	(- 4)	20%	25%	(+ 5)	17%	26%	(+ 9)
1-7 AM/24 hrs	35%	32%	(- 3)	36%	31%	(- 5)	31%	27%	(- 4)
Other 18/24 hrs	66%	68%	(+ 2)	64%	69%	(+ 5)	69%	73%	(+ 4)

Time Period Comparisons	Oct 1980-81			Nov 1980-81			Dec 1980-81		
	1980	1981	Change	1980	1981	Change	1980	1981	Change
1-3 AM/1-7 AM	43%	50%	(+ 7)	47%	56%	(+ 9)	40%	42%	(+ 2)
3-5 AM/1-7 AM	38%	32%	(- 6)	30%	33%	(+ 3)	36%	37%	(+ 1)
5-7 AM/1-7 AM	19%	18%	(- 1)	23%	11%	(-12)	24%	21%	(- 3)
1-7 AM/24 hrs	31%	32%	(+ 1)	37%	35%	(- 2)	34%	33%	(- 1)
Other 18/24 hrs	69%	68%	(- 1)	63%	65%	(+ 2)	66%	67%	(+ 1)

Time Period Comparisons	Jan 1981-82			Feb 1981-82			March 1981-82		
	1981	1982	Change	1981	1982	Change	1981	1982	Change
1-3 AM/1-7 AM	40%	51%	(+11)	44%	43%	(- 1)	45%	52%	(+ 7)
3-5 AM/1-7 AM	35%	33%	(- 2)	31%	45%	(+14)	30%	35%	(+ 5)
5-7 AM/1-7 AM	25%	15%	(-10)	26%	11%	(-15)	25%	12%	(-13)
1-7 AM/24 hrs	39%	35%	(- 4)	34%	31%	(- 3)	35%	32%	(- 3)
Other 18/24 hrs	61%	65%	(+ 4)	74%	69%	(- 5)	65%	68%	(+ 3)

Our interpretation of these results regarding disturbances is similar to what can be concluded about assaults. That is, the pattern of disturbances incidence appears to be connected with the bar hours change, but it is unclear whether the bar hours change is related to any decrease in incidence of disturbances. More data are needed on monthly incidents prior to and after the bar hours change before definite statements can be made about a trend concerning incidence of assaults and disturbances.

Alcohol Related Community Service Patrol Activity

Trend analysis results are reported below which pertain to total community service patrol activity (CSP) contacts and CSP contacts minus detoxification transports. Table 6 presents a comparison of CSP total contacts for July 1980 through March 1981 with July 81 through March 1982. An examination of the percent change in total monthly contacts for the months prior to the bar hours change reveals that CSP's level of activity dropped consistently from July 1981 through October 1981. In regard to the post bar hours change period, the level of CSP activity fluctuated with the lowest activity level being January 1982 and the highest in February of the same year.

A subsequent trend analysis focused on eliminating factors that may distort the pattern involving total CSP contacts. In Table 7, results are reported after Detox transport contacts are deleted from the analysis. This reduced CSP level of activity consisted mainly of contacts with intoxicated individuals. An inspection of the percent change in the reduced level of CSP

Table 6

COMMUNITY SERVICE PATROL TOTAL CONTACTSBY MONTH AND YEAR

<u>Month</u>	<u>Total Contacts</u>		<u>Average Contacts</u>		<u>% Change In Total Contacts</u>	<u>Average Change</u>
	<u>1980</u>	<u>1981/82</u>	<u>1980</u>	<u>1981/82</u>		
July	1556	1887	50	61	+21	+11
August	1497	1700	48	55	+14	+ 7
September	1153	1270	38	42	+10	+ 4
October	1294	1301	42	42	+ 1	0
November	1319	1118	44	37	-15	- 7
December	1118	1291	36	42	+15	+ 6
January	1292	975	42	31	-25	-11
February	1063	1326	38	47	+25	+ 9
March	1169	1398	38	45	+20	+ 7

Table 7

COMMUNITY SERVICE PATROL CONTACTS (minus DX Transports)BY MONTH AND YEAR

<u>Month</u>	<u>Total Contacts</u>		<u>Average Contacts</u>		<u>% Change In Contacts</u>	<u>Average Change</u>
	<u>1980</u>	<u>1981/82</u>	<u>1980</u>	<u>1981/82</u>		
July	1462	1666	47	54	+14	+ 7
August	1405	1497	45	48	+ 7	+ 3
September	1052	1127	35	38	+ 7	+ 3
October	1085	1141	35	37	+ 5	+ 2
November	1088	920	36	31	-15	- 5
December	923	1105	30	36	+20	+ 6
January	1075	773	35	25	-28	+10
February	905	1077	32	38	+19	+ 6
March	993	1137	32	37	+15	+ 5

activity shows that the pattern for total contacts minus DX transports is similar to the previously described pattern of total contacts.

The final trend analysis examined patterns of CSP total activity during 1:00 a.m. to 7:00 a.m. (Table 8). It was assumed that the CSP level of activity may shift according to time of day involving the bar hours change. Contrary to our expectations, these results show no clear shift in CSP level of activity occurred during the 6 hour period surrounding the bar hours change.

The results that describe the CSP activity over the study period reflect no increasing or decreasing trends. Further, there appears to be no evidence of a temporal displacement. As such, CSP activity does not seem to be connected with how long the bars are open. This is a logical deduction since the CSP's clients are the public inebriates who are possibly a group distinctly different from individuals who are the bar patrons particularly in the downtown area of Anchorage.

Summary and Implications for Future Research

Phase I of the bar hours preliminary study entailed conducting a trend analysis of available record data on alcohol related activity in Anchorage. First, with few exceptions, the monthly alcohol distribution for the Third Judicial District increased in July 1981 through February 1982 when the volume was compared with the parallel month one year earlier. The magnitude of this increase, however, fluctuated randomly from month to

Table 8

COMMUNITY SERVICE PATROL CONTACT
BY MONTH, YEAR AND TIME OF DAY

Month	<u>1 - 2 A.M.</u>			<u>2 - 3 A.M.</u>			<u>3 - 4 A.M.</u>		
	1980	1981/82	% Change	1980	1981/82	% Change	1980	1981/82	% Change
July	57	80	+40	72	96	+33	65	70	+ 8
August	61	75	+23	69	57	-17	49	53	+ 8
September	53	60	+13	49	31	-37	66	55	-17
October	46	57	+24	69	53	-23	53	41	-23
November	62	54	-13	50	61	+22	50	48	- 4
December	57	53	- 7	64	77	+20	47	62	+32
January	66	56	-15	70	51	-27	54	44	-19
February	46	68	+48	46	56	+22	57	40	-30
March	58	67	+16	63	50	-21	55	49	-11

Table 8
(continued)

COMMUNITY SERVICE PATROL CONTACT
BY MONTH, YEAR AND TIME OF DAY

Month	4 - 5 A.M.			5 - 6 A.M.			6 - 7 A.M.		
	1980	1981/82	% Change	1980	1981/82	% Change	1980	1981/82	% Change
July	71	37	- 48	85	58	- 32	24	41	+ 71
August	56	42	- 25	89	78	- 12	24	42	+ 75
September	47	34	- 28	62	50	- 19	25	25	0
October	40	25	- 38	59	28	- 53	26	31	+ 19
November	51	28	- 45	49	27	- 45	24	17	- 29
December	52	42	- 19	54	28	- 48	27	15	- 44
January	52	16	- 69	36	25	- 31	17	18	+ 6
February	47	34	- 28	31	49	+ 58	17	27	+ 59
March	30	34	+ 13	24	50	+ 9	14	20	+ 43

month before and after the bar hours change.

Second, there was evidence of a diminishing increase in DWI's several months after the bar hours change when incidents of these post-bar hours change months were compared with incidents of the parallel month one year earlier. A displacement effect was also detected that paralleled moving the bar hours from 5:00 a.m. back to 2:30 a.m.

In discussions of this finding with police department officials, it was said that because the DWI statistic is a measure of DWI's apprehended, systematic bias may have been introduced by personnel change, supervisory and officer bias. The finding does indicate, however, that incidence of DWI may be connected with how long bars are open, thus warranting close scrutiny in future months.

A third finding was that, unlike DWI, incident shifts in the number of assaults and disturbances were random and did not correspond to the bar hours.

A fourth and final finding worth noting concerns our analysis of Community Service Patrol activity. We found that there was no shift in the level of CSP activity which paralleled the bar hours change. One plausible explanation for this result is that public inebriates, who are the CSP's primary clients, are a group distinctly different from individuals who are the bar patrons. Therefore, their activity level would logically not be affected by the bar hours change. Phase II of the study addresses the

public inebriate phenomenon more closely.

The findings reported above are tenuous in and of themselves. However, there are important implications for future research which can be derived from Phase I that is more definitive.

The most important recommendation from the preliminary study is to plan for a rigorous evaluation of the bar hours change. Several requirements of this future evaluation are as follows. First, valid and reliable outcome measures are needed. For example, while alcohol distribution may be an important measure to consider in assessing the impact of the bar hours change, it is necessary to obtain reliable data on alcohol distribution specifically in the Municipality of Anchorage. Currently, the state requires distributors to report the volume of sales only by judicial districts. It is recommended that legislation or policies be adopted, at either the state or municipal level, to require additional statistics on the sale and distribution of alcohol in Anchorage and other subdivisions of the state.

Additional outcome measures which should be considered in a future intensive evaluation are alcohol related traffic accidents and alcohol related emergency services. Traffic information is maintained by the police and the emergency service data are kept by the fire department. In our review of these data, as well as other police and fire records for the preliminary study, we found a wealth of information dating back several years. The problem, however, is that funds have to be provided for these data to be

coded and processed for analysis. An extensive amount of time is needed to complete these tasks and the agencies have limited personnel for data processing and analysis.

Another requisite of an impact evaluation is a longitudinal design that takes into consideration the effects of events other than those being evaluated. In the evaluation of the bar hours change, a multiple interrupted time series design would be appropriate. The basic elements of this design include the following: two to three years of weekly or monthly statistics on each alcohol related outcome measure, e.g., DWI incidence prior to the bar hours change; at least one year of data on the same outcome measures after the change; and statistics over the same time period on one or more nonalcohol outcome measures. The additional data prior to the bar hours change is necessary to statistically predict what would happen if there was no change in the bar hours. At least one year of data after the bar hours change is necessary in order to determine whether or not the change in incidence is temporary or long lasting. Data on nonalcohol outcome measures is needed as a control in cases where a control group is not available. If we found, for example, that alcohol related accidents dropped significantly after the bar hours change and the nonalcohol related did not, this would increase the analyst's confidence regarding the effects of bar hours change, particularly if the reductions occurred during the 1:00-7:00 a.m. time period.

A third requisite of a rigorous impact evaluation is an

appropriate statistical analysis. In the preliminary study, a visual inspection method was used which must be interpreted with extreme caution. A time series analysis that uses computerized statistical procedures is preferable. The University of Alaska has several computer packages that contain such statistical analysis capabilities.

A final requirement is that an intensive evaluation should be conducted in concert with qualitative research which can amplify the understanding of the statistical results. For example, a community survey that centers on eliciting information about alcohol distribution, traffic patterns; drinking patterns, etc., is needed to interpret findings of an impact study. In addition, case studies should also focus on policy relevant facets of controlling alcohol consumption, e.g., the drinking phenomenon on Fourth Avenue.

In conclusion, if an evaluation is conducted as is described above, then more definitive statements about the impact of bar hours change can be assured. Results will be available that not only address impact, but also aid in understanding more about the bar hours phenomenon.

SECTION III

Bar Hours Change and Life on Fourth Avenue

Introduction

Although the municipal ordinance concerning the reduced bar hours covers without exception all bars and liquor stores where food is not served, we were impressed during the weeks of debate over passage of such a measure by the frequent referral by advocates to problems in the downtown area. There a cluster of bars, pawn shops, hotels and restaurants evoke what Alaskans once revered as a Sourdough image but now castigate as an eyesore. Attracted to these bars, liquor stores and the surrounding environments are those persons who engage in public conduct that may offend the middle class consumers of shops in the area.

What types of activity occur on an evening immediately following the closing of the bars on Fourth Avenue? The following is an account of one such evening which illustrates patterns of behavior in connection with the bar hour closure phenomenon.

As the bars clustered together between C and D on Fourth Avenue closed their doors at 2:15 a.m. on a week night in March, 1982, the sidewalk in front of the bars was crowded in a way that is not typical of Anchorage, unless one observes the crush of deplaning passengers from a Jumbo Jet at Anchorage International Airport. It was more typical of a Broadway opening.

More than seventy-five men and women, Native and non-Native, most apparently in stages of mild intoxication, took up posts near the walls of the three bars which front the Avenue or began to seek out friends or strangers with whom to depart.

Parties of two and three persons peeled off to catch one of fifteen cabs lined up to receive clients. They spoke of "clubs" or "parties." Others proceeded

down the street to a restaurant frequented by bar patrons. Others set off for the 24 hour Quick Stop. We followed and observed three incidents of clumsy shoplifting.

Back on the sidewalk we watched a pair of sober young men sweep into the crowd to steal a pocketbook from one heavily intoxicated middle-aged woman. Moments later we observed the same pair work with streetwise precision to jostle and cut the pocket out of a heavily intoxicated man who complained to no avail.

One young woman, her blouse unbuttoned, refused to join a girl friend in a taxi and paced aimlessly, quickly accosted by several bar patrons as well as persons who apparently had arrived to see who was available for a pick-up. Several car and truck loads of young men cruised by the scene, looking for single females.

Police were not visible although the pair of thieves had parked a car without license plates on the curb in front of the bars. A community patrol vehicle stood nearby.

By 2:45 a.m., the sidewalk was empty of all but three bar patrons and two researchers.

Rightly or wrongly, the two block section of Fourth Avenue has become a symbol of Anchorage's alcohol problem. Since by no stretch of the imagination could we assess the impact on all drinking establishments and neighboring businesses, we chose to focus our attention on this area of apparent high public interest. It is fair to assume that there has been sufficient public interest expressed regarding the connection between the bar hours change and Fourth Avenue to warrant the attention given in this study.

Data Collection

This phase of our research employed the methodology of urban microethnography and drew heavily upon experiences gleaned through participant observation in a two square block area of

downtown Anchorage known as Fourth Avenue. We spent many hours observing life on Fourth Avenue, its bars, its sidewalks, alleys and parking lots and its business establishments. Conversations (open-ended questions) with informants (clienteles and employees) were coupled with semi-structured interviews of employees of designated businesses, social control agents and emergency service personnel.

Three members of our research team collected the participant observation data in March of 1982. Observation dates were March 11, 13, 20, 24, 30, and 31 during evening and early morning hours and March 12, 13, and 14 during daytime hours. This entailed observing activity in the bars, street, alleys and parking lots. We also observed activity during late morning hours as businesses were opening.

Members of the investigative team rode along with police officers and Community Service Patrols. On six occasions (three during week days and three during weekends) they spent evenings and early mornings in the Fourth Avenue bars and street observing first hand the impact of early closing. We were also able to analyze a log of incidents that occurred in and around the Post Office Mall during the study period. The log was recorded by the security patrol.

In regard to the unstructured interviews, the female member of the team interviewed female bar patrons and the male members interviewed male bar patrons. In addition, unstructured inter-

views were conducted with bar employees, cab drivers, and shop and hotel employees.

Using information gained from earlier observations and unstructured interviews, four members of our research team conducted semi-structured interviews directed at members of three relevant groups potentially impacted by the change in bar (and liquor store) closing hours. These informants were drawn from businesses interspersed in the same bar area characterized as a skid row district by Kelso, Hobfoll and Peterson (1978) as well as businesses within a half block of this district. The only exceptions were cab companies that send taxis into the Fourth Avenue zone at bar closing hours.

One category of businesses was those which actively solicited clients from among bar and liquor store patrons. It included bars, restaurants, variety stores and taxicab companies. Another category of businesses, although similarly situated within the Fourth Avenue zone, do not actively solicit bar and liquor store patrons. It includes businesses that discourage or eject inebriated persons who enter their establishments. This division among businesses was based then on the policies which establishments themselves articulated and were always confirmed by observation.⁴

Along with businesses impacted, a variety of social control agents and emergency service personnel were interviewed. These included security personnel at hotels and shopping centers, Anchorage Police Department officers, paramedics of the Anchorage

Fire Department, and members of the Community Service Patrol (CSP). The CSP, as a contractual service, responds to requests to remove drunken persons from public and private areas.

Those participating in semi-structured interviews were persons who had been on the job a year previously (or longer) and who were able to compare the impact of changed bar closing and opening hours with those that had existed during the previous winter. In all, 46 interviews were conducted, 8 of social control agents, 11 emergency service persons, 10 of businesses which seek out Fourth Avenue patrons and 14 of businesses which dissuade or actually repel Fourth Avenue patrons. This was a purposive sample, therefore no generalization can be made to the other individuals who may be placed in the groups sampled.

Analysis Strategy

The analytical framework which was used to direct the focus of the study takes into consideration three important dimensions. Figure 1 presents these dimensions in a cube configuration.

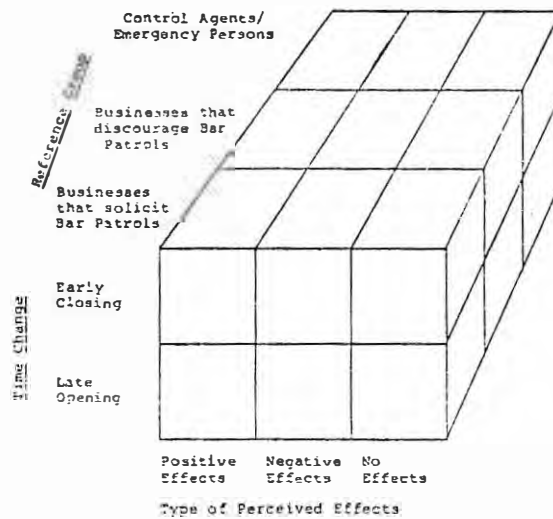


Figure 1: Analytical Framework for Studying Bar Hour Changes

In analyzing the data and based on a small purposive sample, we classified the response by type of perceived effects of the bar hours closing. We also attempted to determine whether the effects were related to the earlier closing time or to the late opening time. This classification scheme was used for businesses that solicited bar patrons, those that discourage bar patrons, and for control agents and emergency personnel.

The analysis is qualitative rather than quantitative. Numbers and percentages relating to Figure 1 are not presented because of the possibility of giving a misleading picture of reality on Fourth Avenue.

Results

Our purpose was to determine whether changes had occurred in the events most relevant to social control agents, emergency services personnel and businesses which stemmed from their proximity to Fourth Avenue bars and liquor stores and the persons attracted to Fourth Avenue. As will be seen, for some study participants, change or lack of change was related to problems on Fourth Avenue created by bar patrons and by public inebriates. These problems ranged from harassment, theft, littering and vandalism, to disorderly conduct. For others, changes were defined as gains or losses in business revenue and employment opportunities. When early closing of bars is considered and, most especially, when the congregation and dispersal of bar patrons at closing time (described in the introduction) occurs, both positive and negative changes were recorded by our informants.

Early Closing and The Perceived Positive Effects

On the positive side (as noted by social control agents, emergency service personnel and businesses) the bar hours change allows for a gap in time of at least seven hours between bar closing and the opening of most but not all business establishments on the avenue.

"It has cleaned up Fourth Avenue a little. Not as many drunks lying round," observed one police officer, noting however, that the bar closing scheme had not been tested during the summer months. Positive comments by other police that "It allowed more DWI's to be detected," and activity "dies down earlier than before."

The emphasis in these comments is not on a change in the situation so much as a shift in tone of the pre-existent situation.

As one control agent put it, "People do not hang around because there are too many hours between when the bars close and when they open again. Before people would hang around for hours in the cold and wait for the bars to reopen. (T)he time difference of when people flop used to be one hour when the street was clear. Now there are three to four hours when the streets are clear."

A small majority of emergency service personnel interviewed seemed to think that there had been a slight change in the situation on Fourth Avenue after the bar hours closure change. There has been a drop in emergency calls in the Fourth Avenue

area since the bar hours have been changed," claimed several paramedics. In particular, paramedics said that there had been some decrease in calls, they thought, regarding the number of auto-pedestrian injuries and incidence of violence.

We also found evidence that drinking people presumably leave the Fourth Avenue area because the gap between closing and opening time is too long to wait on the Avenue. This seems to lie at the heart of positive comments, not only of social control agents, but of merchants who saw the early closing as positive.

The manager of a fast food restaurant which opens at 6 a.m., an hour after the bars closed in 1981, and now opens four hours after bar closure, has noticed a sharp decrease in the number of drunks who use his restaurant as a place to wait for bars to open.

The employee of a furrier and a security guard in a motel-hotel restaurant remarked on the relative absence of waiting or sleeping inebriates at 9:00 a.m. The waitress of another street-side cafe that opens at 6:00 a.m. and does not cater to bar patrons remarked that she and customers were apt to be less harassed by drunks. The employee of a surplus store said she no longer had to dart across Fourth Avenue on her way to work at 8:30 a.m.

Also, the positive side of early bar closing was felt by certain businesses which cater to bar patrons. The cab business has benefited mightily as patrons seek parties elsewhere or at

(exempt) afterhour clubs. Police participating in the study stated that it is possible that these latter clubs have also increased in number. However, they had no direct knowledge of such clubs.

Taxi drivers speak of driving patrons to Palmer or Wasilla to either stock up on liquor for the return trip or to continue their drinking in those establishments.

One member of the research team who traveled to Palmer to confirm this found that there was a significant shift of bar patronage among white middle class persons to bars in Palmer and Wasilla. Cab drivers also noted, however, that there are now insufficient cabs for other patrons during daytime hours.

Finally, a restaurant that caters to bar patrons confirmed that it was able to shift its hours of operation and close earlier while serving essentially the same clientele.

The Negative Side of Early Closing

The negative side of early bar closing was voiced by bar employees who have lost what they view as significant earning power. Employees have been laid off in all bars visited, employees who frequented other non-liquor related businesses in the vicinity. They have felt the monetary loss.

"Innocent people have lost their livelihood," said one such businessman on the Avenue who said that some bars were off as much as \$3,000 a month. A young manager of a sundry and video

game shop that caters to bar patrons said that he was forced to close early. He noted that persons who work late and young people were generally denied a good time on weekends in other areas of the city by the early bar hours closure ordinance.

This same young manager confirmed the observation of researchers when he noted that the early closing tended to throw persons on the street en masse. The result, he said, was more street crime with people preying on those who were especially inebriated.

As stated, we observed this phenomenon. Especially impacted negatively are single women who do not readily link up with friends and companions. These women (often intoxicated and deserted by friends) cannot merely remain in the bar until early morning, but are now cast on the sidewalk. There, cruising vehicles of young men accost them. Unlike their middle class counterparts in other bars in the city, these females do not have private vehicles. The result is a higher possibility of violent crime against these bar patrons.

One security person noted that prior to bar closing, the stream of persons who left the bars was steady from midnight until early morning. Now the pressure to drink to excess until the the bar closes and then depart is extreme.

Late Opening and Perceived Positive Effects

Obviously both early closing and late opening work together to create the eight hour time gap between the hours of bar and

liquor store operation.⁵

We received no comments from social control agents or from businesses which dealt explicitly with the positive effects of late opening. However, since the time gap is a single gap, it is fair to say that those comments which reflected positively on effects of early closing and which came from merchants who open early in the mornin were also, indirectly, positive comments on the late opening of bars and liquor stores. This is because informants cannot really determine whether early closing or late opening influences the conduct of Fourth Avenue patrons; the hour changes work together.

The Negative Side of Late Opening

While positive comments on late opening were not volunteered, negative effects of late opening were offered up. They suggest that for early opening businesses (prior to 10:00 a.m.), who look to bar patrons for trade, the results of late opening (not early closing) have been serious.

While there is strong support for early closing to allow the streets to be cleared of inebriates and to give a disincentive to persons who had previously waited from 5:00 a.m. to 8:00 a.m. in the morning for the bars to reopen, there are complaints surrounding the late opening of the bars by businesses which continue to open before 10:00 a.m. and seek early morning bar patrons and employees of bars as customers.

A barber in the Fourth Avenue zone who opens at 8:00 a.m.

said that the absence of business traffic caused him to lose many early morning shaves. He pointed out that a restaurant located in a Fourth Avenue bar had lost its breakfast business entirely. According to the informant, it had changed hands in anticipation of this negative impact.

Businesses that did not desire bar or liquor store patrons remarked that clients of bars and liquor stores tended to wait in their stores or doorways to warm up until bars opened. For example, employees of a furrier and kitchen utensil concern for the middle class remarked that the net effect of late opening was that drunks were hanging around outside instead of inside during the early morning hours. A restaurant situated next to the Fourth Avenue bars that opens at 6:00 a.m. said it was persistently harassed by persons waiting for bars and liquor stores to open.

We examined records kept on an hourly basis, by a security guard of the Post Office Mall, from March 9 to April 2, 1982. He records incidents of intoxication both within the Mall and on the street adjacent to the Mall. In this period the guard recorded separate occasions before 10:00 a.m. on ten days when he ejected intoxicated men and women, Native and non-Native, from the shopping center.

For example, on March 10 at 9:30 a.m., he took two bottles of alcohol away from four intoxicated persons on the corner of Fourth Avenue and D. On March 11 at 9:15 a.m. he found an intoxicated woman sleeping in the women's room on the first floor. On

March 13 at 9:45 a.m. he found an intoxicated male asleep on the toilet of the first floor and asked two intoxicated males to move on from the corner of Fourth and C. On March 18, he removed three intoxicated males from the Mall at 9:30 a.m. What seems apparent then is that there is liquor to be found among so-called "street people" even before the liquor stores and bars open.

Who are the street people? Street people constitute, according to Kelso, et al, (1978:27) a "small sub-group of Fourth Avenue patrons which sleeps in alleys, dumpsters and hallways, lives off whatever means it can find, and constitutes what is referred to in Yiddish as luftmenche (air people) those who live with no visible means of support." As Kelso notes, members of other groups of patrons join the street people and vice versa. However, street people are usually not bar patrons.

How the bar hours have affected the composition of this group or the problems they create is impossible for us to determine with any accuracy. Their presence in back alleys and parking lots seems to have been little affected. Put another way, those who hoped to see this group impacted by shortening the hours of operation of bars and liquor stores have not been impressed with the results.

This may explain why nearly half of the business people interviewed who do not cater to bar and liquor store patrons suggested that the late opening had a negative impact. Another third saw no impact on problems associated with Fourth Avenue

patrons that they had experienced from either early closing or late opening. The source of the problems may not be patrons of bars but "street people."

No Effect

Neither early closing nor late opening was said to affect the problems confronted by four businesses on or near Fourth Avenue that do not cater to bar patrons when they are intoxicated. These businesses described persons sitting in the alleys as well as litter and vandalism to windows as ongoing early morning problems. Their focus also may have been on the street people, the so-called winos, persons who were invariably ejected from bars as well as persons who enter bars infrequently.

Liquor stores close one hour before bars and open with bars at 10:00 a.m. Thus persons dependent on bottles and not bars have usually left the Fourth Avenue area before bars close. Exactly when these persons reappear is subject to controversy but does not seem to be affected by the new hours of operation.

Bar and liquor store closing hours may have very little to do with the comings and goings of street people in the early morning even as it influences the comings and goings of bar patrons. Because these groups are intermingled in the public's image of Fourth Avenue and, in fact, according to Kelso, et al, somewhat overlapping, it may be impossible to gauge the impact of bar closing and bar opening upon patrons if street people account for most of the discernible problems which merchants encounter.

Thus, while sober customers have been discouraged from getting shaves or buying breakfast, as well as liquor before liquor stores or bars open for business, in the period from 8:00 a.m. to 10:00 a.m., inebriates have been somewhat discouraged from the Avenue but find havens in sidestreets, alleys, parking lots and public restrooms.

Summary and Implications for Future Research

Phase II results of this study show that individuals who work on Fourth Avenue have definite opinions about how the bar hours change has altered patterns of behavior in this area. Business persons who discourage the business of bar patrons were divided in terms of no effects and positive effects of the early bar closing. In regard to late opening, some indicated no effect, others reported positive effect, but the largest number vocalized negative effects. As discussed earlier, we concluded that some of these business persons were categorizing bar patrons and street people as one and the same.

A majority of the businesses that actively seek out bar patrons recorded negative effects of the early closing and late opening. This group included not only bar employees, but also other service-related businesses. Some indicated positive effects in cases where business increased, and several stated there had been no effect.

A small majority of the social control agents and emergency service personnel saw a positive effect of the bar hours change, while the others reported either negative or no effects. Several

indicated both the positive and negative side of the change. It appears that the bar hours change has impacted individuals working on Fourth Avenue, but this impact varies considerably.

There are several conclusions and implications for future research which can be offered.

1. Our conclusion that bar closing hour modifications have worked a change on the patterns of movement to and from Fourth Avenue confirms the need to study the interrelationship between Fourth Avenue and its participants and other realms of urban (and rural) life in order to gauge with accuracy what the real impact of bar closing changes has been for patrons and the community.

This holistic analysis could not be accomplished within the time and person power constraints of our project. Until it is done, Fourth Avenue will neither be understood nor changed.

Kelso, Hobfoll and Peterson in their descriptive analysis of the downtown Anchorage Skid Row Population found that the Fourth Avenue district did not match in the composition of its patronage those urban zones usually characterized as Skid Row. The district's bars have a substantial population of young Native women along with a nearly even number of Native and white men seeking their company. Traditional skid row populations are aged white alcoholics. Although there is a minority of "winos" or street people in the alleys and parking lots of Fourth Avenue, the predominant number of patrons are young, employed or employable.

We were struck by the similarity of the bar scene on Fourth Avenue to other recreative bar scenes in Fairbanks, Petersburg, Nome and many other smaller rural communities. We suggest that the Fourth Avenue scene may be better compared with drinking scenes in other rural places around the state.

The problem of characterization of this area is that an extensive baseline study is needed which describes the networks relating to the urban Native populations in Anchorage, both permanent and transient. The connection between Fourth Avenue and skid row situations persists, this largely because downtown merchants, the press and middle class consumers view this area of Fourth Avenue with revulsion and experience persistent problems from street people.

This characterization of Fourth Avenue as a big city Skid Row may say something about Anchorage's desire to disassociate itself from the inherent rurality of the state. It may also be reflected in responses of social control agents who have had little or no rural experience.

2. While businesses who cater to bar patrons can describe with some certainty what impact early closing and late opening have had on their situation, businesses who seek to avoid problems associated with drinking on and around Fourth Avenue cannot distinguish bar patrons from "street people." The latter rarely drink in bars and appear to be less affected by changes in closing and opening hours (even though liquor store hours were also affected.) These separate, but par-

tially overlapping groups are viewed as one by these businesses.

"Street people," who are not significant bar patrons, but who are very visible participants in the Fourth Avenue zone, cannot be separated from bar patrons with ease by persons who deal with neither group as customers or clients when problems associated with drinking behavior are recounted. It is critical that researchers divide both groups. This cannot be accomplished without research similar to that of Spradley (1970) who conducted an in-depth study of Skid Row in Seattle, Washington. In addition, public policy designed to deal with street people and public policy designed to deal with bar patrons must be separately structured, implemented and evaluated.

3. Early bar closing does in fact create the displacement and dispersal of bar patrons who may have continued to drink and that minority who may have waited for bars to reopen when the gap between closing and opening was three hours rather than eight hours. This displacement phenomenon may result in the dispersal of problems normally associated with Fourth Avenue to other places. Future studies should examine this phenomenon more closely.
4. We urge some close exploration of the possible link between early bar closing and violence to women. We urge some examination of incidence of drunk driving before and after the closing hour changes were instituted, especially as they

occur on the Glenn Highway between Anchorage and Palmer. We urge that the economic loss to bars and to businesses in their vicinity be explored. Finally, attention should be given in future research to Fourth Avenue as it serves as a recreation area for visitors and citizens from the entire Anchorage area.

FOOTNOTES

¹ Due to the importance of producing baseline information on the bar hour phenomenon, the Justice Center provided additional services to produce this product. These resources supplemented the original \$3,000 contract.

² Additional agencies that were contacted for record data included the following:

- Anchorage Fire Department (emergency medical service data;
- Alaska Native Hospital, Alaska Hospital, Providence Hospital (alcohol related emergency treatment data);
- Suicide Prevention and Crisis Center (alcohol related data).

Data available from these sources were only indirectly relevant to understanding the problem or required additional resources to code a voluminous amount of records.

³ Because of differences in the percentage of alcohol in beer, wine and liquor, total gallons distributed by month would be misleading.

⁴ Initial impressions were often inaccurate. For example, a corner cafe situated in a prime Fourth Avenue bar location had changed ownership with a change in the closing hours. The policy of the new owner-operator was to eject drunks. Since bar patrons were his most frequent clientele, his operation suffered severe business losses. By his own definition, he became then a business that did not attract but actively repelled drunks. A

drug store that is a longterm landmark near the Fourth Avenue zone repelled drunks by closing its restrooms. On the other hand, it sought business from bar employees. This division in interests was reflected in its concern for the potential loss of trade when the bar and liquor store hours were shortened.

5 As we began our study, we focused on early closing hours without realizing that for businesses in the Fourth Avenue area (leaving the opinions of bar employees aside) the delay in opening bars from 8:00 a.m. to 10:00 a.m. would cause greater controversy and be a greater focus of attention than the early closing hours.

REFERENCES

Kelso, D, S.E. Hobfoll, W.J. Peterson. A Descriptive Analysis of the Downtown Anchorage Skid Row Population. Center for Alcohol and Addictions Studies, University of Alaska, Anchorage: Altam Associates, 1970.

Spradley, J.P. You Owe Yourself A Drunk: An Ethnography of Urban Nomads. Boston, MA: Little Brown, 1970.