



**The Police Alcohol-Related Services Study (PASS):
A Study of the Intersection of Public Alcohol Use
and Routine Police Patrol**

Preliminary report prepared for the
Anchorage Police Department

by

Brad A. Mystrol

Robert H. Langworthy

Justice Center
University of Alaska Anchorage



June 2004
JC 0417

**The Police Alcohol-Related Services Study (PASS):
A Study of the Intersection of Public Alcohol Use
and Routine Police Patrol**

Preliminary report prepared for the
Anchorage Police Department

by

Brad A. Mystrol, Co-Principal Investigator¹

Robert H. Langworthy, Co-Principal Investigator

Justice Center
University of Alaska Anchorage

June 2004
JC 0417

¹ All questions, comments and critiques should be directed to Brad A. Myrstol, Justice Center, University of Alaska Anchorage, 3211 Providence Drive, Anchorage, Alaska 99508. Phone: (907) 786-4885.

DISCLAIMER

This is only a *descriptive* report drafted for the Anchorage Police Department. The paper contains information gathered from the Police Alcohol-related Services Study (PASS), an observational study exploring the intersection of public alcohol consumption and patrol work in Anchorage, Alaska.

This publication presents a first glance at data which Anchorage Police Department administrators expressed interest in before field observations. The report is limited to descriptive statistics (frequency/percentage tables and charts) for all observations pooled together, and is intended to be used as catalyst for further discussion and a roadmap for more detailed analyses of the data. Thus, this report should not be construed as the final word on the impact of public alcohol consumption on police patrol in Anchorage. Rather, it should be seen as a work in progress.

The authors welcome any comments, critiques or suggestions.

CONTENTS

| | |
|--|----|
| Acknowledgements | i |
| Chapter One: Study Overview | 4 |
| Chapter Two: Characteristics of P.A.S.S. Sample | 8 |
| Distribution of observations: time of day | |
| Distribution of observations: day of week | |
| Distribution of observations: beat area | |
| Conclusion | |
| Chapter Three: Patrol Work in Anchorage: A Brief Description of Time-Task Allotment | 16 |
| Activities | |
| Encounters | |
| Chapter Four: Alcohol Involvement in Patrol Work: Number of Discrete Events | 20 |
| Alcohol involvement: percentage of all events | |
| Alcohol involvement: percentage of all activities | |
| Alcohol involvement: percentage of all encounters | |
| Chapter Five: Alcohol Involvement in Patrol Work: Time Spent on Alcohol-related Activities | 23 |
| Alcohol involvement: time spent on alcohol-related events (activities + encounters) | |
| Alcohol involvement: time spent on alcohol-related activities | |
| Alcohol involvement: time spent on alcohol-related encounters | |
| Chapter Six: Estimating the Costs of Public Alcohol Use Incurred by the Anchorage Police Department | 27 |

ACKNOWLEDGEMENTS

The authors hope this research will serve as testimony to what can be achieved when justice professionals and justice scholars join together in a collaborative effort to advance knowledge and understanding within the field.

This study would not have been possible without the commitment and support of the entire Anchorage Police Department, particularly the department's leadership. Special recognition goes to Chief Walt Monegan for granting unprecedented access to the daily operations of the Anchorage Police Department. Without Chief Monegan's unwavering commitment and support, this research could not have been completed. Deputy Chiefs Audie Holloway and Rob Heun each played an essential role in the data collection process in innumerable, though largely unseen, ways. Rest assured, your efforts may have been unseen, but they were not unnoticed or unappreciated by us. Perhaps more "visible" were the tireless efforts of officers Pablo Paiz and Derek Hsieh, who both served as liaisons to our team - graciously answering countless questions, and successfully putting out a number of "fires." This research is as much a product of your hard work as ours.

SPECIAL THANKS go to the men and women of the Anchorage Police Department *Patrol Division!!!* Thank you for your warm welcome and hospitality. Thank you for your willingness to endure the sometimes nerve-racking experience of being watched. Thank you for re-arranging your home-away-from-home to make room for us. Thank you for your patience explaining the complexities and nuances of your profession. Most of all, thank you for allowing us to glimpse the true nature of patrol work (the most visible but least understood aspect of contemporary policing), which is always in high demand but often unappreciated.

PASS RESEARCH TEAM MEMBERS

The authors want to acknowledge the hard work and dedication of the P.A.S.S. research team. All Research Assistants (RAs) had to undergo training and certification prior to conducting ride-alongs as well as collect both qualitative and quantitative data for every observation – a daunting task. All told, P.A.S.S. RAs conducted 65 rides across 28 days, documenting approximately 2,200 events, 416 of which were police-citizen encounters with over 600 individuals. Quantitative data were entered for every ride, activity, event and citizen encounter. In addition, RAs completed detailed textual narratives for each ride, totaling over 700 type-written pages. We would like to make special note of the efforts of Joel Hunt who put in countless hours constructing and refining the P.A.S.S. database.

We would also like to acknowledge those who worked behind the scenes at the Justice Center on this project. Marie Brunner, Justice Center Office Manager, made sure the P.A.S.S. research team had all the tools necessary to make this research happen – from pens and paper to compensation. Alan McKelvie, Director of the *Alaska Statistical Analysis Center*, lent his technical expertise for the construction of the P.A.S.S. database and the map files used in this report.

PASS RESEARCH TEAM MEMBERS {CONTINUED}

Principal Investigators

Brad A. Myrstol, Research Associate
The Justice Center at UAA

Robert H. Langworthy, Director
The Justice Center at UAA

Project Director

Brad A. Myrstol

P.A.S.S. Observers

Joel Hunt
Erin See
Tim Huit
Darin Forth
George (Andy) Benton
Tom Fogarty
Chris Evans
Brad Myrstol

Justice Center Research/Support Staff

Marie Brunner, Office Manager
The Justice Center at UAA

Alan McKelvie, Director
The Alaska Statistical Analysis Center
The Justice Center at UAA

CHAPTER ONE

STUDY OVERVIEW

This study was conducted by the Justice Center at UAA in response to a request by the Anchorage Police Department (APD) for an empirical investigation of the overall impact alcohol use by the public has on APD.

The Police Alcohol-related Services Study (PASS) provides a rare in-depth look at how alcohol use affects one dimension of the police function in Anchorage: *patrol work*. Routine patrol was chosen as the study's focus because it represents the heart of contemporary policing not only in Anchorage, but in the United States as a whole. Data from the Law Enforcement Management and Administrative Statistics program show that, on average, municipal police departments in the U.S. assigned 63 percent of their full-time sworn officers to patrol in 1999. In the spring of 2004, APD employed approximately 312 sworn officers, 73 percent ($n = 229$) of whom were assigned to patrol. But, it is not simply because of numerical domination that patrol represents the heart of contemporary policing. All sworn police officers, from the chief of police on down the chain of command, share the experience of having worked as a patrol officer. Although some officers may later delve into their own specialties, it is *patrol work* that stands as the core integrative experience of nearly all police systems in the Western world. Finally, it is line-level patrol officers who provide police services to most people. It is, in fact, a relatively rare experience for a member of the public to deal with a police administrative staff member, criminal investigator, or tactical team member. In all likelihood, the person most people will interact with when they encounter APD will be a patrol officer and no one else. In other words, in terms of service rendered to the public, patrol work constitutes most of what police departments *do*.

Because the other aspects of police work were not examined in this research, it would be inappropriate to extrapolate the findings presented herein to police work *in general*. However, since the patrol function is so constitutive of any municipal police organization – from the sheer number of patrol officers in a department in comparison to other sworn and non-sworn employees, to the shared experience of all sworn officers, to the fact that patrol work dominates so much of what police departments do – this study makes significant strides in understanding the overall impact alcohol use by the public has on APD.

RESEARCH METHODS

To best investigate the impact public alcohol use has on the APD, a research design was needed that allowed for not only its quantification, but also one that provided for a meaningful interpretation of it. To accomplish both the goals of quantitative and qualitative data analysis, a technique known as systematic social observation (SSO) was adopted whereby trained observers directly witnessed police work in the field, wrote a detailed narrative account of every encounter officers engaged in with members of the public and of the ride as a whole, and then completed a survey questionnaire about each ride. Field observations were complemented by a department-wide survey which tapped some of the subjective dimensions of the impact public alcohol use has on not only patrol officers, but also other sworn and non-sworn personnel as well (preliminary report forthcoming, Summer 2004).

DATA COLLECTION

Data collection in the field lasted 28 days, beginning on January 2 – 29, 2004. Eight observers, each trained and certified in the techniques of systematic social observation, conducted all field observations by riding with members of the APD patrol division. Observers accompanied officers at all times for an entire 10-hour shift, except for brief times when officers

requested that the observer leave them (primarily private phone conversations and restroom breaks). At the conclusion of each shift, observers completed a log sheet enumerating and categorizing every *event*² their assigned officers participated in over the course of the shift. Events were broken down into two conceptual categories: a) *encounters*; and b) *activities*. *Encounters* consisted of an event in which there was significant³ face-to-face communication between a police officer and a member of the public. Activities, on the other hand, included anything an officer did that was not an encounter.

The next stage of data collection required observers to complete a detailed written account – a narrative – of the entire observation period, event by event. When completing their narrative descriptions observers used field notes to help recall specific details and nuances of each event so they could accurately and reliably describe events as they occurred. Observer narratives were completed within 24 hours of each observation session.

Only after completing their event log and narrative did observers begin quantitative data entry for a ride. Quantitative data entry consisted of observers completing a detailed questionnaire asking them about various aspects of their ride. The questionnaire was administered by computer and was completed at the Justice Center. It is these quantitative data which are summarized here.

Sampling

This study is an investigation of the impact public alcohol consumption has on one aspect of the Anchorage Police Department: *patrol work*. Although the findings presented here cannot

² An “event” is formally defined in this study as any action, incident or occurrence that an officer participates in intentionally, or by the direction of others. Events are, in sum, what officers *did* during each observation session. Within this broad framework consist two more specific dimensions: a) “encounter”; and b) “activity.”

³ “Significant” for all types of encounters (full, brief, casual) refers to the scope of the police-citizen interaction. To qualify as any kind of encounter the interaction must be more than a wave or a few words of greeting exchanged between the police officer and citizens in passing.

be generalized to police work in its totality because of this specific focus on patrol, it was important that APD leadership at least be able to make sound inferences from these particular data to APD patrol. In order to accomplish this goal of generalizability, a sampling plan was designed whereby patrol *shifts* and patrol *beats* were each randomly selected, thereby substantially reducing the risk of temporal (time of day) or geographic (area of city) bias, as well as other unknown (and thereby unspecified) biases in the data. This was accomplished by creating a sampling frame of all shift-beat combinations, for every day of the study.

The APD patrol division uses a 3-shift rotation (A, B, and C shifts) with one patrol unit assigned to each of 22 geographically distinct patrol beats. For each day there were 66 possible shift-beat combinations (see Table 1). Repeating this enumeration for each day of the study period (28 days) resulted in a final sampling frame of 1,848 unique day-shift-beat combinations. Each day-shift-beat combination was numbered sequentially, beginning with the first day of the study; a random number generator was then used to select a sample of 76 day-shift-beat combinations⁴.

The particular 28-day period of this study was selected to provide a reasonable length of time (4 weeks) to make inferences about patrol work in Anchorage, and also because this period did not contain any significant “special events” that would make the extent or nature of alcohol consumption by the public somehow atypical. That is to say, the period of the study was characterized largely by its ordinariness. There were no national or local party holidays of note during the study period (e.g. New Year’s Eve, the Super Bowl, Fur Rendezvous, St. Patrick’s Day, Independence Day). Another important factor was the availability of PASS observers, most of whom were students at the University of Alaska, Anchorage. University classes were not in

⁴ Because APD assigns only one patrol unit to each beat, once a unique day-shift-beat combination was selected it could not be selected a second time. Replacements for sample duplicates were chosen by repeating the selection procedure, using the entire universe of beat-shift combinations, until a valid (unused) beat-shift number appeared.

session for the first half of the study period because of winter break. This period allowed the PASS research team to undergo intense training, as well as time to get acclimated to the field environment prior to classes beginning again for the spring semester.

In addition to the random selection of day-shift-beat combinations, which helped to ensure the *external* validity of the data, other mechanisms were put in place in an attempt to minimize *internal* bias as well. The APD has a well-established ride-along program whereby citizens and would-be officers can ride with a patrol officer for a shift to witness first-hand what patrol work is like. For the purposes of ensuring internal validity, the fact that the APD had a long-standing ride-along program was good news because it reduced, though it certainly didn't eliminate, concerns that patrol officers would alter their behavior while in the presence of an observer. Presumably, officers would be somewhat used to observers being present. However, it was also known that within the APD patrol division, senior officers are afforded the courtesy by their supervisors to decline the opportunity to have riders along for a shift. Such a practice, while good for officer morale, is a bane to scientific investigation because it systematically introduces bias into an SSO sample by eliminating particular officers from observation. To overcome this, an agreement was reached between the Justice Center and APD in which officers would not be permitted to decline a PASS observer when they were selected for observation.

Finally, PASS observers were randomly assigned to sampled day-shift-beat combinations to reduce the effects of any systematic bias they might introduce. While each observer underwent the same rigorous training and certification process, each observer undoubtedly had his or her own unique influence on the data collection process. While random assignment does not allow us to say observer bias was eliminated, it does mean that any bias that was introduced was equally distributed across all observations.

Table 1. Sampling frame of patrol BEAT-SHIFT (B-S_{i,j}): Day 1

| BEAT DESIGNATION (<i>i</i>) | PATROL SHIFT(<i>j</i>) | | |
|--|--------------------------------------|--------------------------------------|--|
| | “ALPHA” SHIFT (2300-0900) | “BRAVO” SHIFT (0700-1700) | “CHARLIE” SHIFT (1500-0100) |
| 1 | B-S _{1,1} | B-S _{1,2} | B-S _{1,3} |
| 2 | B-S _{2,1} | B-S _{2,2} | B-S _{2,3} |
| 3 | B-S _{3,1} | B-S _{3,2} | B-S _{3,3} |
| 4 | B-S _{4,1} | B-S _{4,2} | B-S _{4,3} |
| 11 | B-S _{5,1} | B-S _{5,2} | B-S _{5,3} |
| 12 | B-S _{6,1} | B-S _{6,2} | B-S _{6,3} |
| 13 | B-S _{7,1} | B-S _{7,2} | B-S _{7,3} |
| 14 | B-S _{8,1} | B-S _{8,2} | B-S _{8,3} |
| 15 | B-S _{9,1} | B-S _{9,2} | B-S _{9,3} |
| 21 | B-S _{10,1} | B-S _{10,2} | B-S _{10,3} |
| 22 | B-S _{11,1} | B-S _{11,2} | B-S _{11,3} |
| 23 | B-S _{12,1} | B-S _{12,2} | B-S _{12,3} |
| 24 | B-S _{13,1} | B-S _{13,2} | B-S _{13,3} |
| 25 | B-S _{14,1} | B-S _{14,2} | B-S _{14,3} |
| 41 | B-S _{15,1} | B-S _{15,2} | B-S _{15,3} |
| 42 | B-S _{16,1} | B-S _{16,2} | B-S _{16,3} |
| 43 | B-S _{17,1} | B-S _{17,2} | B-S _{17,3} |
| 45 | B-S _{18,1} | B-S _{18,2} | B-S _{18,3} |
| 46 | B-S _{19,1} | B-S _{19,2} | B-S _{19,3} |
| 51 | B-S _{20,1} | B-S _{20,2} | B-S _{20,3} |
| 52 | B-S _{21,1} | B-S _{21,2} | B-S _{21,3} |
| 53 | B-S _{22,1} | B-S _{22,2} | B-S _{22,3} |

CHAPTER TWO

CHARACTERISTICS OF PASS SAMPLE

Resource and time limitations limited the initial sample to 76 total observation sessions across the 28-day period. Of the 76 day-beat-shift combinations sampled, only 65 were subsequently completed – a sample attrition rate of about 15 percent. In most instances sampled rides were not completed because of observer illness or unforeseen schedule conflicts that precluded observation during the scheduled time. Despite eleven of the scheduled observation sessions not happening as planned, examination of the final sample shows that the realized sample was not unduly biased. This chapter presents a detailed description of how the observations which *were* conducted were distributed across time (time of day; day of week) and space (police beat).

Distribution of observations: time of day

| Shift | DESIGNED SAMPLE | | REALIZED SAMPLE | | % Difference |
|--------------|------------------------|----------------|------------------------|----------------|---------------------|
| | Number | Percent | Number | Percent | |
| “A” | 21 | 27.6 | 19 | 29.2 | +1.6 |
| “B” | 32 | 42.1 | 25 | 38.5 | -3.6 |
| “C” | 23 | 30.3 | 21 | 32.3 | +2.0 |
| Total | 76 | 100.0 | 65 | 100.0 | --- |

Examination of the distribution of observed shifts shows that the randomized selection of day-shift-beat combinations was quite successful in producing a final sample which was not biased by time of day. Because APD deploys patrol units equally across all shifts – that is, there was not an increase or decrease in the volume of patrol units according to time of day – it was important that the final sample be as evenly distributed as possible. A “perfect” sample would have had one-third of all observations assigned to each shift. The distribution of observations for

both the designed⁵ and realized⁶ samples was indeed close to the ideal of one-third representation within each shift, although there was some deviation. If the final sample had demonstrated a marked concentration of observations during a particular shift, the final results would be limited in their generalizability.

Values in the “% Difference” column indicated the degree to which the realized sample differed from the designed sample. The values presented in this column make clear two points. First, there is little difference between the two sample distributions; in other words, the realized sample did not differ significantly from the designed sample. Secondly, the magnitude and direction of the values illustrate the randomness of the attrition process itself. If a discernable pattern of missed rides was detected (meaning it was not random) this could mean there was some observer bias introduced into the realized sample. Fortunately, there is no evidence this occurred. In sum, there is good evidence to suggest that the final sample of 65 PASS observations is representative of APD patrol in terms of shift deployment.

Distribution of observations: day of week

It was also necessary to explore the distribution of the final sample of 65 PASS observations in order to check for a second type of temporal bias: day of week. Police, criminal justice scholars and the non-expert walking down the street all know (even if they are not conscious of it) that daily life is structured by day of week. The terms “weekday” and “weekend” serve to demonstrate this fact quite clearly by denoting that certain activity is performed on certain days, and not on others.

⁵ The *designed* sample of day-shift-beat combinations consisted of the 76 *initial selections* enumerated in the sampling protocol.

⁶ The *realized* sample of day-shift-beat combinations consisted of the 65 *actual observation sessions* conducted by PASS researchers in the field.

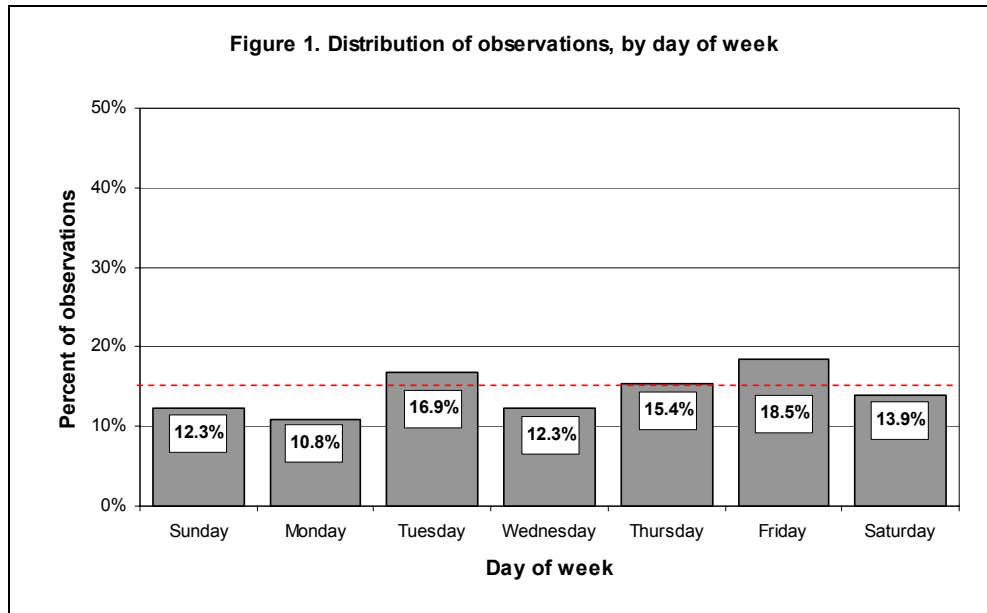
Just as the APD maintains a constant deployment of patrol units by shift, it also maintains a constant patrol presence each day of the week. Therefore, each day of the week should have equal proportional representation in a “perfect” sample of cases. Numerically speaking, each day should have 14.3 percent of all observations in such a sample.

**Table 3. Distribution of sampled observations, by day of week:
designed v. realized**

| Day of Week | DESIGNED SAMPLE | | REALIZED SAMPLE | | % Difference |
|--------------------|------------------------|--------------------------|------------------------|--------------------------|---------------------|
| | Number | Percent | Number | Percent | |
| Sunday | 10 | 13.2 | 8 | 12.3 | -0.9 |
| Monday | 10 | 13.2 | 7 | 10.8 | -2.4 |
| Tuesday | 12 | 15.8 | 11 | 16.9 | +1.1 |
| Wednesday | 11 | 14.5 | 8 | 12.3 | -2.2 |
| Thursday | 10 | 13.2 | 10 | 15.4 | +2.2 |
| Friday | 13 | 17.1 | 12 | 18.5 | +1.4 |
| Saturday | 10 | 13.2 | 9 | 13.9 | +0.7 |
| Total | 76 | 100.0¹ | 65 | 100.0¹ | --- |

¹ May sum to over 100 percent due to rounding.

As with time of day, examination of the distribution of observations across day of week suggests that the sampling design was successful in producing a representative sample in terms of the day of week that observations took place. The dashed line in Figure 1 (next page) illustrates the optimal percentage distribution of observations for each day of the week (14.3%). Typically, observations were slightly more likely to occur late in the week (Thursday, Friday, Saturday) rather than early- (Sunday, Monday) or mid-week (Tuesday, Wednesday). But, there is no evidence that observations were overly concentrated on any particular day in comparison to all rest. What differences there were in the distribution failed to meet the threshold for statistical significance, which is to say there was no systematic bias detected in the final sample of PASS observations by day of week.



Distribution of observations: beat area

Table 4 (below) presents data comparing the distribution of APD beats within each patrol district with the proportion of PASS observation sessions within each patrol district as specified in the original study sample. At first glance, the most notable thing about APD’s beat distribution is that the East, West and South districts each contain an equal proportion of all APD patrol beats (22.7% respectively). These are followed by the Central district which contains 18.2 percent of all APD beats, and finally the North district which has the smallest percentage of APD beats (13.6%). Under the “Designed Sample” heading is the number and percentage of PASS observations which were intended to occur within each patrol district. The final column presents the difference between the actual percentage of APD beats within each district, and the percent of all observations intended to occur within each district for the PASS study.

| PATROL DISTRICT | APD BEAT DISTRIBUTION | | DESIGNED SAMPLE DISTRIBUTION | | % Difference |
|------------------------|------------------------------|--------------------------|-------------------------------------|--------------------------|---------------------|
| | Number | Percent | Number | Percent | |
| Central | 4 | 18.2 | 16 | 21.1 | +2.9 |
| North | 3 | 13.6 | 10 | 13.2 | -0.4 |
| East | 5 | 22.7 | 18 | 23.7 | +1.0 |
| South | 5 | 22.7 | 15 | 19.7 | -3.0 |
| West | 5 | 22.7 | 17 | 22.4 | -0.3 |
| Total | 22 | 100.0¹ | 76 | 100.0¹ | --- |

¹ May sum to over 100 percent due to rounding.

We can see that the randomized sampling design produced an sample that closely (though not perfectly) mirrored the true geographic distribution of police patrol in Anchorage. The largest observed differences came in the Central (+2.9%) and South (-3.0%) districts, followed by the East (+1.0%), North (-0.4%) and West (-0.3%) districts. None of these observed differences was found to be statistically significant.

The same cannot be said for the observed differences between the designed and realized samples, however. The sample attrition experienced during the study’s administration was not evenly distributed across patrol districts (see Table 5, next page). In particular, the Central district is proportionally over-represented in the sample, and the North and South districts were under-represented. The percentage of PASS observations which occurred in the East and West districts was not appreciably different from their overall presence within APD patrol. The consequence of this outcome is that to the extent that alcohol-related events were more likely to occur in the North and South districts, the sample may under-estimate the impact of public alcohol consumption. Conversely, if the Central district was more likely to produce alcohol-related events then these data may exaggerate the impact of alcohol on police patrol in

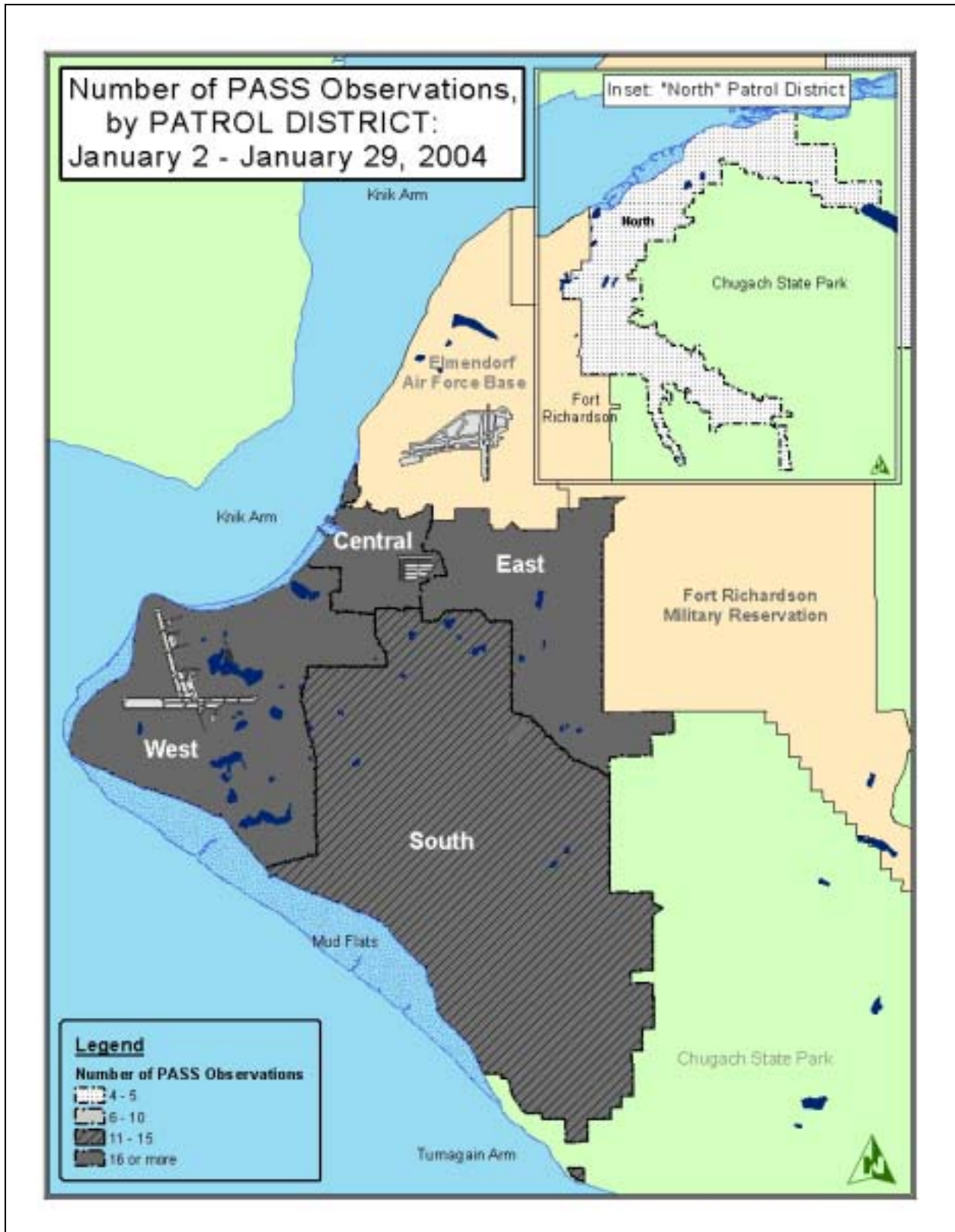
Anchorage. Further analyses will be conducted to produce precise estimates of this sampling error.

| Day of Week | DESIGNED SAMPLE | | REALIZED SAMPLE | | % Difference |
|--------------------|------------------------|--------------------------|------------------------|--------------------------|---------------------|
| | Number | Percent | Number | Percent | |
| Central | 16 | 21.1 | 17 ² | 26.2 | +5.1 |
| North | 10 | 13.2 | 4 | 6.2 | -7.0 |
| East | 18 | 23.7 | 17 | 26.2 | +2.5 |
| South | 15 | 19.7 | 11 | 16.9 | -2.8 |
| West | 17 | 22.4 | 16 | 24.6 | +2.2 |
| Total | 76 | 100.0¹ | 65 | 100.0¹ | --- |

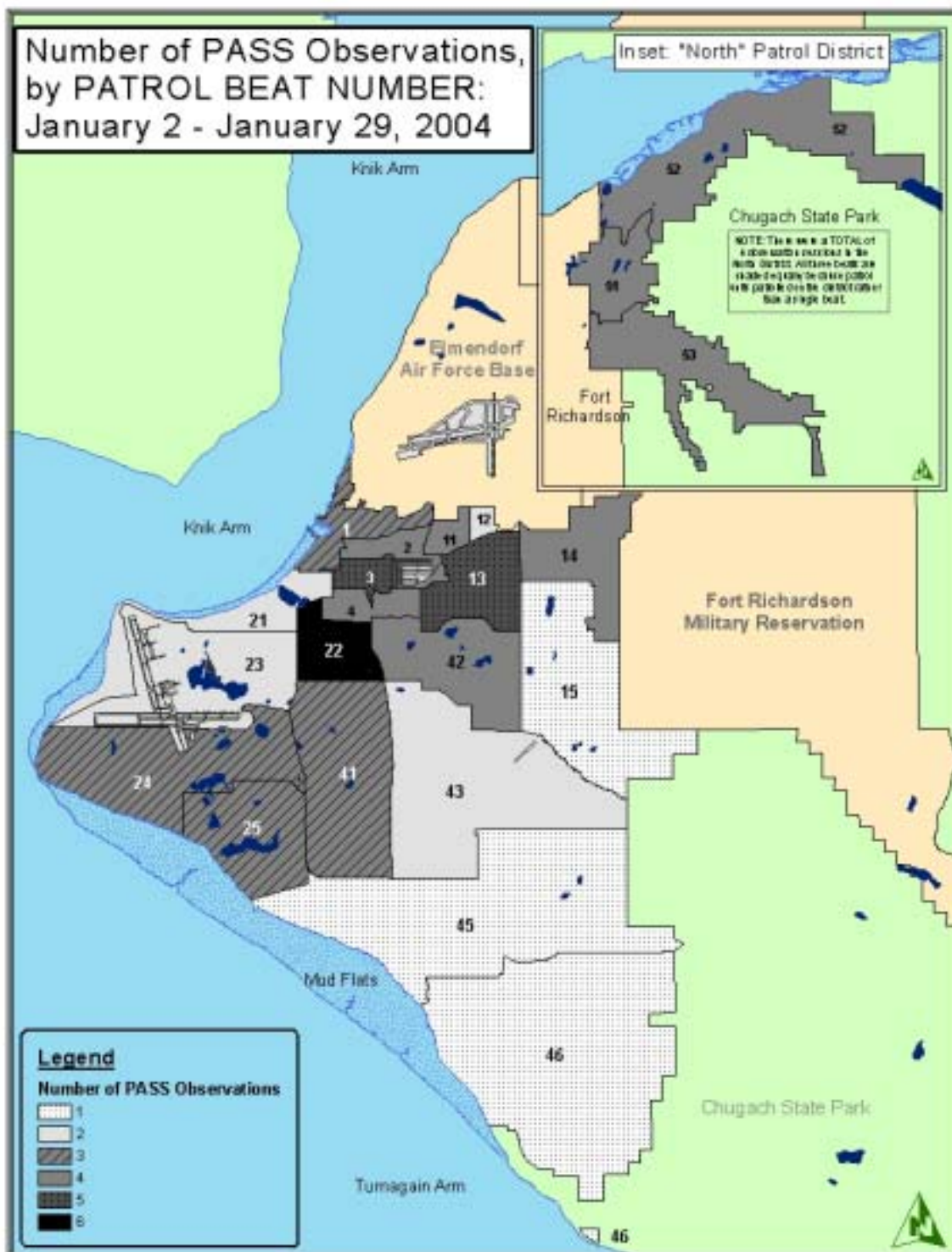
1 May sum to over 100 percent due to rounding.
2 A PASS observer was mistakenly assigned to ride with a Central District unit by a shift sergeant.

Pictorial descriptions of the geographic distribution of PASS observations are provided in Map 1 and Map 2 on the following pages. In terms of specific patrol beats (as compared to patrol districts), one beat stood out from the rest. PASS researchers conducted observations in Beat 22, commonly known as “Spenard,” on six separate occasions (see Map 2), which was more than in any other patrol beat. Most beats were observed three or more times, although several had only one or two observations during the study. There were a total of four observations in beats 51, 52 and 53⁷.

⁷ Review of observer logs showed that officers assigned to “North” district beats spent nearly as much time in adjacent beats as in their assigned beat, so each of these has been coded as having 4 observations.



Map 1. Number of PASS observations, by patrol district.



Map 2. Number of PASS observations, by patrol beat.

Conclusion

Unlike other studies utilizing systematic social observation techniques (SSO), the PASS study did not set out to sample areas that would maximize exposure to the phenomenon of interest – in our case, alcohol-related events. Instead, the sampling protocol employed for the PASS study was designed to produce a representative sample of Anchorage police patrol.

Preliminary analysis of the temporal and spatial distribution of PASS observations suggests that in its totality the sampling design was successful in producing a representative sample of patrol observations which were not unduly biased in terms of when (time of day, day of week) or where (beat) they took place. Moreover, close examination of the realized sample showed that despite the attrition of initially sampled rides, the final sample of PASS observations did not differ appreciably from APD police patrol in general. While there were some nominal differences, they were not large enough to suggest that the attrition process was anything other than random.

CHAPTER THREE

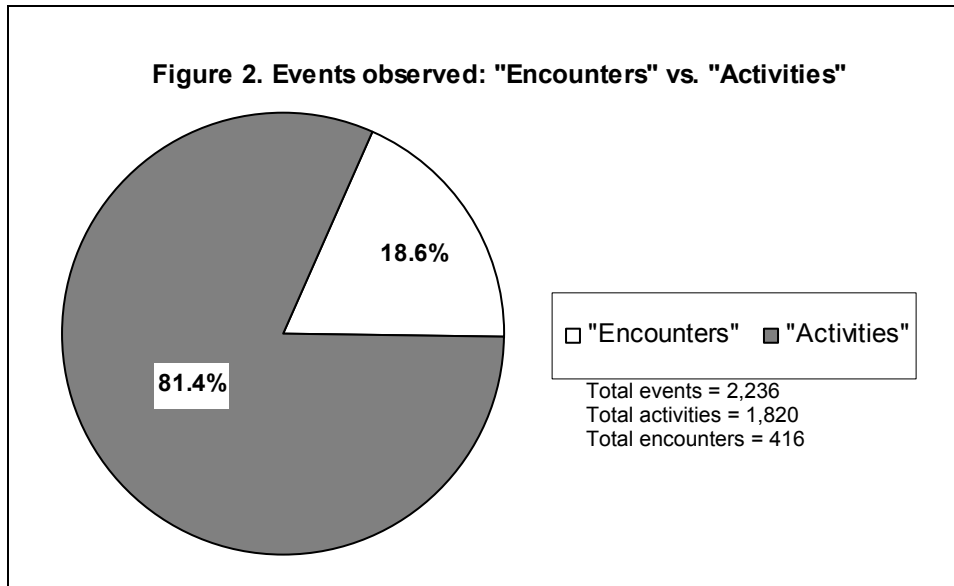
PATROL WORK IN ANCHORAGE: A BRIEF DESCRIPTION OF TIME-TASK ALLOTMENT

Before getting started, it will be necessary to go over some initial definitions of the key concepts used in the PASS study. An *event* is formally defined as any action, incident or occurrence participated in by the officer observed, either of their own volition or at the direction of others. That is, *event* is a term used to conceptually describe what officers did while on duty during an observation session. Two more specific definitions are provided within the event rubric: a) an *encounter*; and b) an *activity*. An *encounter* is defined as a significant inter-personal interaction between the observed officer and a member of the public. For this study, a significant interaction was defined as more than a wave or a few words of greeting exchanged between the observed officer and citizens⁸. All remaining events were defined as *activities*.

Figure 2, presents the overall percentage of both types of events observed by PASS researchers. Preliminary analyses⁹ show PASS researchers to have observed 2,236 events during the 28-day study period, totaling approximately 650 observation hours. Only a minority of these events (18.6%) were police-citizen encounters where officers engaged in significant face-to-face interaction with members of the public. The remainder of all patrol officer workload did not involve interaction with the public; of the 2,236 documented work actions by PASS observers, 1,820 of them (81.4%) were miscellaneous activities. This should not be construed to mean officers were doing nothing. Quite the contrary, in fact. A listing of the different types of activities officers engaged in during the study, which PASS researchers observed, is provided in Table 5.

⁸ For a more detailed operational definition of this term see the full study description detailing the operational definitions of all terms and concepts used in data collection.

⁹ At the time of this writing approximately 50% of all quantitative data had been “cleaned.”



Activities

Data from PASS show the activity APD officers are engaged in most frequently is traveling to other activities and encounters (37% of all officer activities), followed by motorized patrol (23.8%), administrative tasks (12.4%), personal business (5.8%), meetings with other police (5.1%), problem-focused activity (4.7%) and then all other miscellaneous activities (10.4%). However, these frequency percentages do not translate directly into time usage, as an examination of en-route activity clearly demonstrates. While en-route activity accounted for over a third of all discrete activities, it accounted for just over one-fifth of the *time* spent by patrol officers on all activities. In contrast, administrative tasks (report writing, vehicle maintenance, and so on) represented only 12.4 percent of discrete activities, but more than 20 percent of total activity *time*. APD patrol officers spent the largest proportion of their time (25.2%) conducting motorized patrol.

| ACTIVITY TYPE | NUMBER OF EVENTS | PERCENT | TOTAL MINUTES | PERCENT |
|--------------------------|-------------------------|----------------|----------------------|----------------|
| En-route activity | 674 | 37.0 | 5,536 | 21.3 |
| Motorized patrol | 433 | 23.8 | 6,554 | 25.2 |
| Administrative tasks | 225 | 12.4 | 5,294 | 20.4 |
| Personal business | 105 | 5.8 | 3,623 | 13.9 |
| Meet w/ other police | 93 | 5.1 | 1,185 | 4.6 |
| Problem-focused activity | 85 | 4.7 | 927 | 3.6 |
| All other | 191 | 10.4 | 2,662 | 10.2 |
| ----- | | | | |
| Missing/Unknown | 14 | 0.8 | 215 | 0.8 |
| ----- | | | | |
| Total | 1,820 | 100.0 | 25,996 | 100.0 |

These data make clear two important points. First, they show that APD patrol officers do not “goof off” on shift. In fact, these data suggest that APD patrol officers may have less down time than professionals in other sectors. Consider the finding that APD officers use 13.9 percent of their total activity time engaged in personal business (meals, breaks, and other personal errands). When viewed from the vantage point of *total shift time*, APD patrol officers spend only 9.8 percent on unofficial activities. As a proportion of time spent at work, APD patrol officers actually tend to personal matters less often than people in other lines of work. To illustrate this point, consider that a significant number of workers enjoy a one-hour lunch break and two 15-minute breaks, one in the morning and one in the afternoon, each workday. For an 8-hour shift this amount of personal time comprises 18.7 percent of total work time; for a 10-hour shift it amounts to 15 percent of total work time. Using either scenario, findings from PASS show that APD patrol officers do not spend an inordinate amount of time tending to personal business – in fact, they may well spend less time on such activity than people in other lines of work. The

second point to be made is that APD patrol officers engage in a variety of job tasks, not just patrol. This is even more evident when separate activities and encounters are each considered.

Encounters

Table 6 presents a summary of the types of problems associated with encounters between APD patrol officers and members of the public. PASS observers recorded problem codes at three stages of every police-citizen encounter: 1) the problem *as communicated by dispatch*; 2) the two most-serious problems at the *beginning of the encounter*; and 3) the two most-serious problems at the *conclusion of the encounter*. Table 6 presents the most common encounter types using only one of these measures: the most-serious problem at the conclusion of the each encounter.

| ENCOUNTER TYPE | NUMBER OF EVENTS | PERCENT | TOTAL MINUTES | PERCENT |
|---------------------------|-------------------------|----------------|----------------------|----------------|
| Traffic enforcement | 127 | 30.5 | 3,072 | 33.7 |
| Offenses against persons | 35 | 8.4 | 1,269 | 13.9 |
| Offenses against property | 31 | 7.5 | 923 | 10.1 |
| Order maintenance | 27 | 6.5 | 441 | 4.8 |
| Legal services/processing | 22 | 5.3 | 707 | 7.8 |
| Domestic/family problems | 14 | 3.4 | 259 | 2.8 |
| Informational encounter | 12 | 2.9 | 76 | 0.8 |
| Medical assistance | 6 | 1.4 | 143 | 1.6 |
| Drug/alcohol violation | 5 | 1.2 | 66 | 0.7 |
| Misc. Civil problems | 5 | 1.2 | 89 | 1.0 |
| ----- | | | | |
| All other problems | 52 | 12.5 | 1,043 | 11.4 |
| No problem | 64 | 15.4 | 607 | 6.7 |
| Missing/Unknown | 14 | 3.4 | 424 | 4.7 |
| Total | 416 | 100.0 | 9,119 | 100.0 |

APD patrol officers were most likely to interact with members of the public while tending to traffic-related problems such as equipment and moving violations, and accidents.

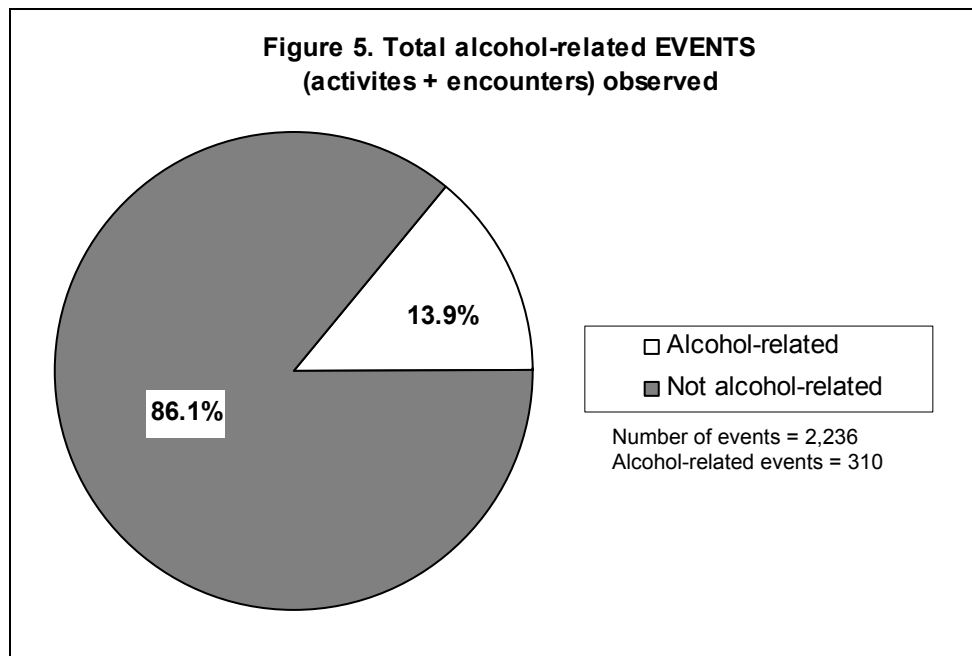
Nearly a third (30.7%) of all police-public encounters, and precisely a third (33.7%) of all encounter time, arose in the context of traffic enforcement duties. Potential criminal acts – offenses against persons and property – constituted the second-most frequent situational context bringing the citizenry and the police together, comprising 15.9 percent of all encounters between patrol division officers and the public, totaling nearly one-quarter (24%) of all encounter time. Coming in third in frequency and fourth in terms of time allocation were order maintenance activities with 6.5 percent of all encounters and 4.8 percent of total encounter time. Of significant interest is the relatively large percentage (15.4%) of encounters that ended up being no problem at all by the end of the encounter.

CHAPTER FOUR:

ALCOHOL INVOLVEMENT IN PATROL WORK: NUMBER OF DISCRETE OF EVENTS

Alcohol involvement: percentage of all events

Roughly one out of every 7 events experienced by an APD patrol officer is connected to public alcohol consumption in some way. Figure 5 (below) provides a visual depiction of the extent of alcohol involvement in police patrol in the municipality of Anchorage. Of the more than 2,200 events observed for PASS, 310 of them (13.9%) were determined to be alcohol-related.

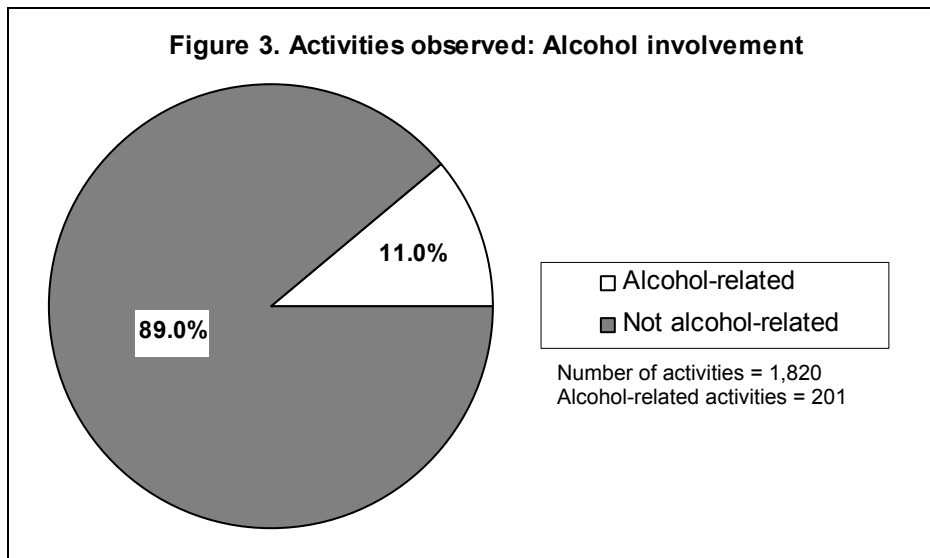


While this finding helps to shine light on the extent of alcohol involvement on APD patrol workload in general, it does little to help generate a nuanced understanding. For example, how does this 13.9 percent break out across the two event dimensions of *activity* and *encounter*? What is the nature of those events (particularly encounters) that are, in fact, alcohol-related? How are alcohol-related events spatially distributed throughout the city? The next two sections provide more detail in an effort to answer the first question of these questions.

Alcohol involvement: percentage of all activities

Alcohol involvement was coded by PASS observers any time an activity engaged in by the officer observed was linked with alcohol use by a member of the public in some way. Some examples of the most common alcohol-related activities observed during the study were (but are not limited to):

- An officer completing *paperwork* for an alcohol-involved incident
- An officer *en-route* to an alcohol-involved incident
- An officer visiting a *court or magistrate* in connection with an alcohol-related incident



When the totality of patrol *activities* was examined, those which were connected to alcohol use by a member of the public in any way were found to comprise only a small minority. Of the 1,820 activities documented by PASS researchers, 11 percent ($n = 201$) were found to be alcohol-related. Thus, even when patrol officers are not dealing directly with alcohol-related incidents (i.e., in police-public encounters), relatively little time is dedicated to “downstream” activities that would be considered alcohol-related. Despite what might be construed as a low percentage of activity time dedicated to alcohol-related tasks, readers should keep in mind that a low percentage of a large volume can still end up being quite large. At the time of this writing

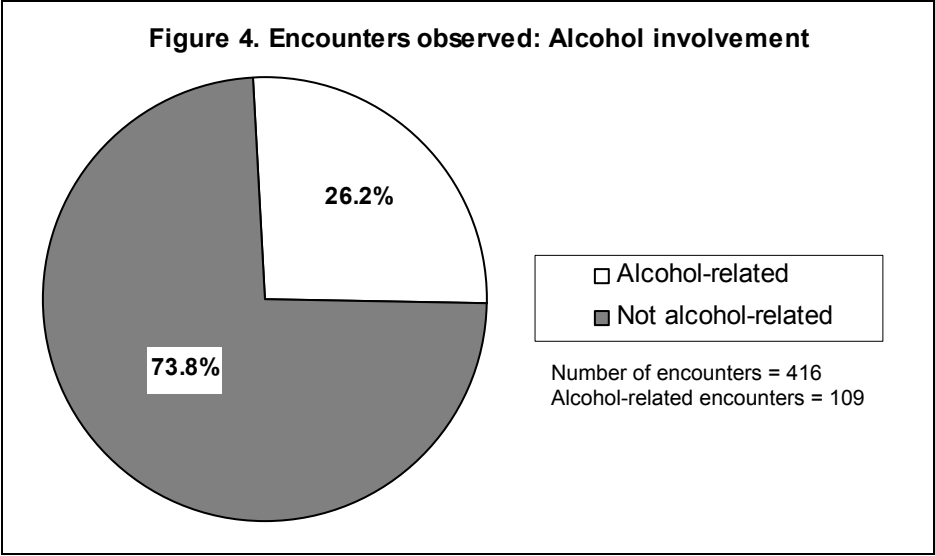
there were 2,448 minutes of confirmed alcohol-related activity time across the study period. This translates into over 40 hours – a full work week for one person – of officer time dedicated to nothing other than alcohol-related activities.

Alcohol involvement: percentage of all encounters

Alcohol involvement was more prevalent in police-citizen *encounters* than in activities, although alcohol-related encounters still represented a relatively small proportion of all encounters. Of the 416 police-citizen encounters observed over the course of the study, 26 percent ($n = 109$) were determined to be alcohol-related. For encounters, PASS observers coded alcohol involvement if there was directly observable evidence that a person with whom the observed officer interacted had been drinking such as:

- Member of public in possession of alcohol;
- Admission of alcohol use by member of public;
- Corroboration of alcohol use by 3rd party;
- Detectable odor of alcohol emanated from member of the public (breath; clothing);
- Behavioral indicators (difficulty walking; slurred speech); and
- Objective measures of alcohol use (field sobriety test; breathalyzer).

If any of these indicators were present, PASS observers recorded the encounter as alcohol-related. An encounter was not coded as alcohol-related if evidence of alcohol use was not present in the immediate instance. That is, if an encounter stemmed from previous alcohol use (perhaps the day before), the encounter was not coded as alcohol related unless there was objective evidence of alcohol use which could be corroborated. An example of such an instance was when an officer met with a victim of intimate partner violence who had been assaulted by her drunken spouse the day before. The batterer was arrested the previous night and his alcohol use was a matter of factual evidence. This encounter with the victim, and all activities associated with it (see above for discussion of alcohol-related activities) were coded as “alcohol-related.”



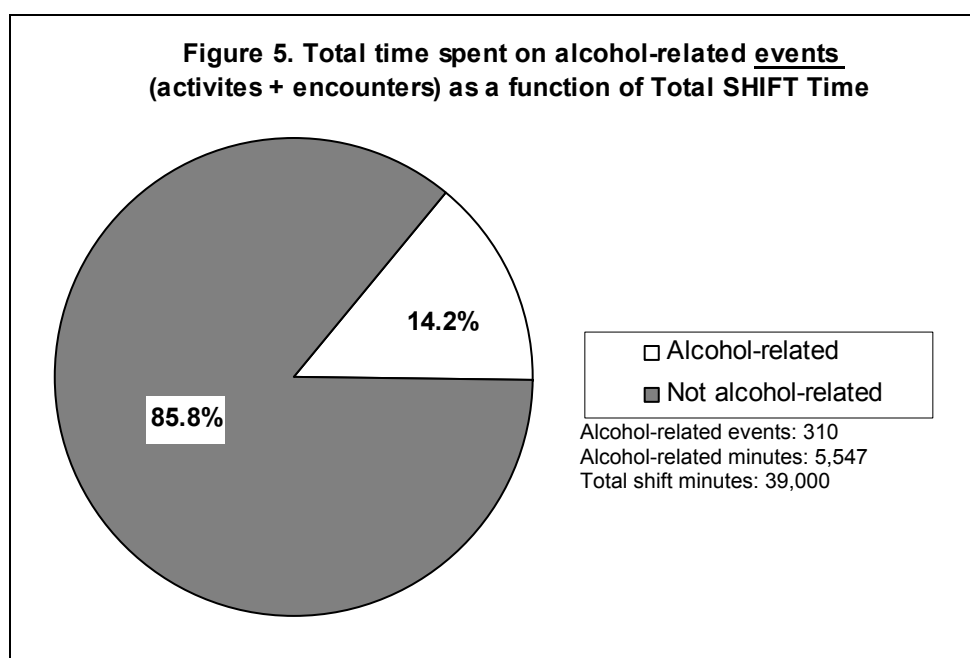
Once again it is clear that public alcohol use does not overwhelm patrol officer workload in Anchorage, even when only police-public encounters are considered. Nevertheless, these data do suggest the extent to which public alcohol consumption penetrates police-citizen encounters.

CHAPTER FIVE:

ALCOHOL INVOLVEMENT IN PATROL WORK: TIME SPENT ON ALCOHOL-RELATED EVENTS

Alcohol involvement: time spent on alcohol-related events (activities + encounters)

In order to provide a more complete assessment of the impact public alcohol use has on APD patrol, PASS observers meticulously documented officer time usage for every observation session. Observers were required to record the beginning and end time for every event (activities and encounters), for each shift. PASS researchers observed 65 10-hour shifts over the course of the study, for a total of approximately¹⁰ 650 hours (39,000 minutes).



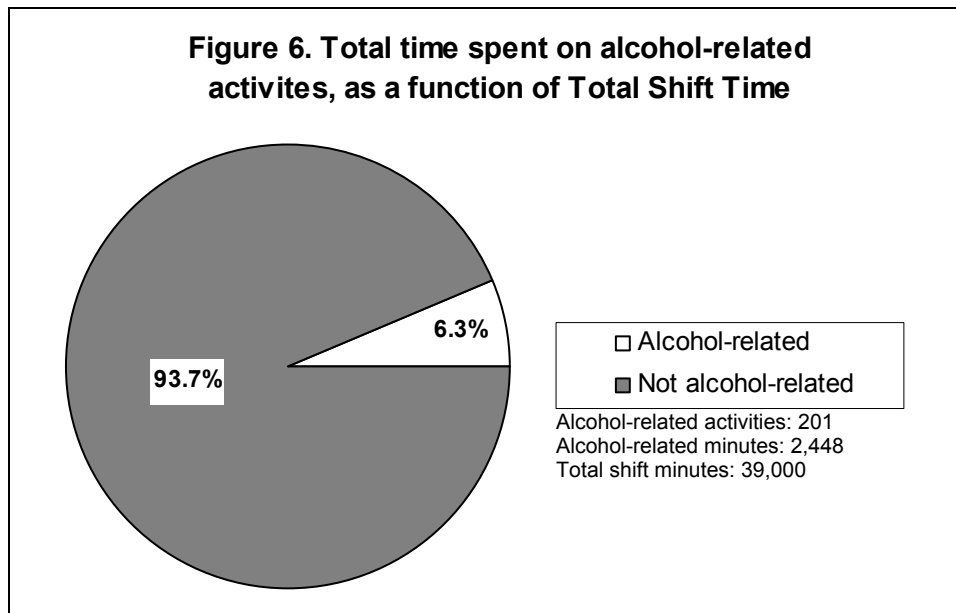
To help address one specific question of impact - personnel costs - the total amount of time officers spent on alcohol-related activities was estimated. Time analyses were conducted across two dimensions. The first dimension examined was the total amount of time officers spent on alcohol-related activities as a percentage of *total observed shift time* (see Figures 5, 6 and 8). The second dimension examined was the amount of time APD patrol officers spent on alcohol-related activities as a percentage of *total event (activity v. encounter) time* (see Figures 7 and 9).

¹⁰ The actual total shift time is slightly less than 650 hours because some shifts ended early. As of the time of this writing, a precise estimate of the total time lost due to early shift termination was not available.

Across 65 observation sessions, PASS researchers observed more than 430 hours (25,996 minutes) of miscellaneous officer activity (all non-encounter events), and over 150 hours (9,119 minutes) of encounters between APD patrol officers and members the public. (Because all of the PASS data were not fully compiled at the time of this writing, the calculations presented in Figures 5, 6 and 8 are based on a denominator of 39,000 minutes, thereby making these alcohol-related percentages conservative estimates.) There were a total of 310 alcohol-related events during the 28-day study period, constituting about 92 hours (5,547 minutes) of direct observation. These alcohol-related activities and encounters comprised about one-seventh (14.2%) of the total time patrol officers were on shift.

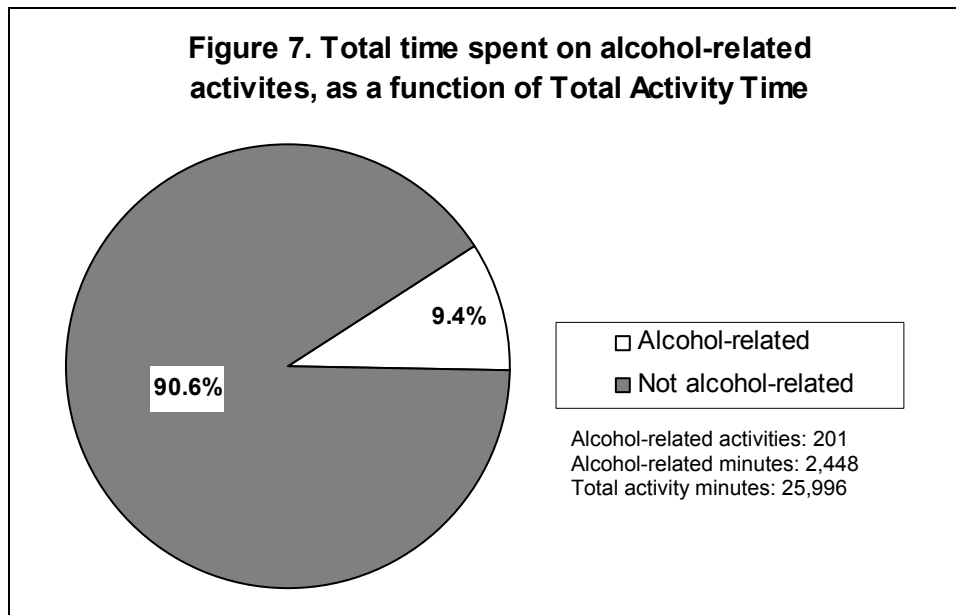
Alcohol involvement: time spent on alcohol-related activities

When only the amount of time officers dedicated to alcohol-related *activities* is viewed as a percentage of *total observed shift time*, the degree of alcohol involvement is significantly less than when both activities and encounters are combined. The percentage of alcohol-related involvement decreases from 14.2 percent (Figure 5) to 6.3 percent (Figure 6, below).



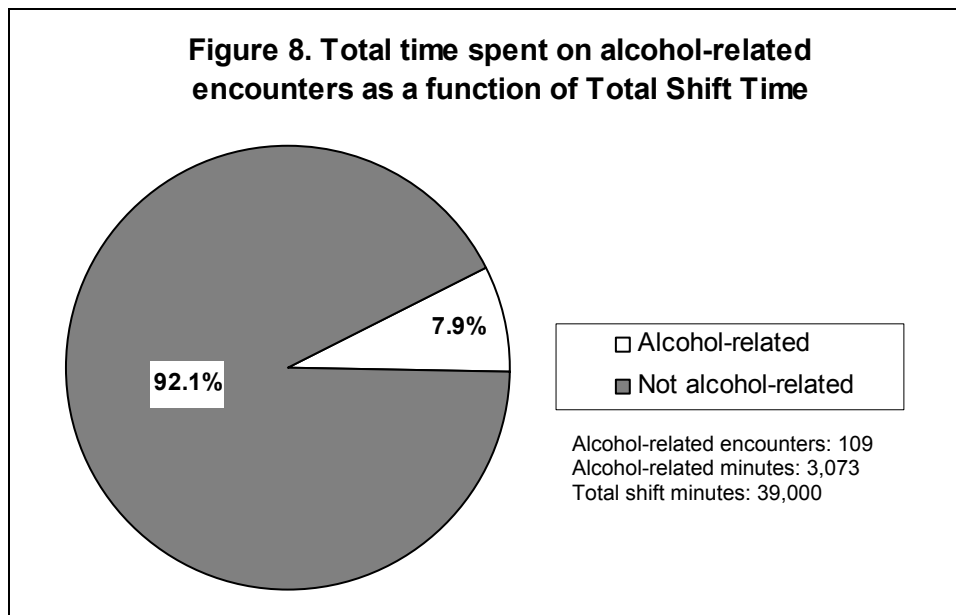
Even when alcohol-related activities are examined in the context of other activities, rather than all events, the sum total of time spent on them fails to reach 10 percent. Using only *total activity*

time as the percentage base, rather than total shift time, the percentage of alcohol involvement increases by about 3 points to 9.4 percent (see Figure 7, below).

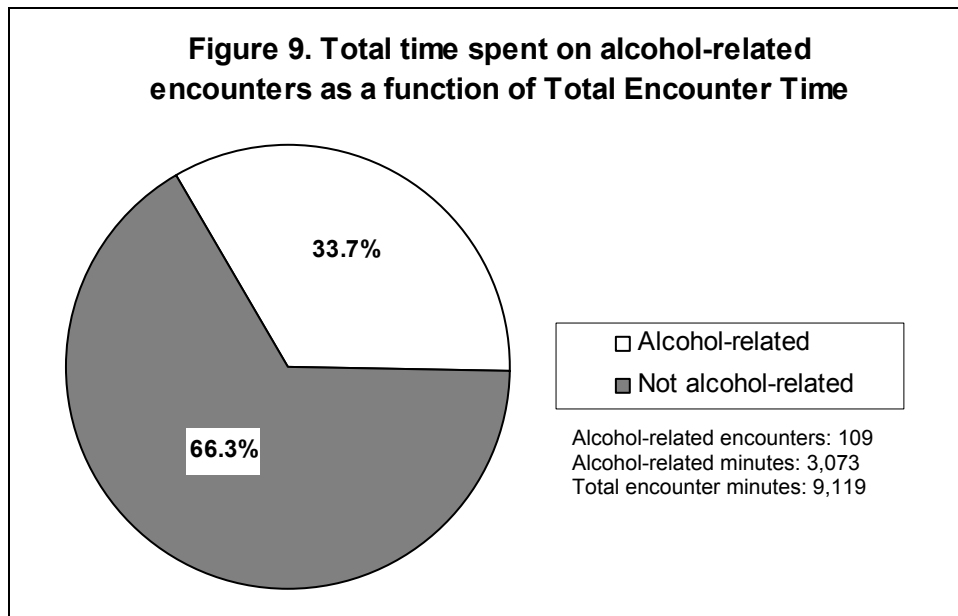


Alcohol involvement: time spent on alcohol-related encounters.

APD patrol officers spent about 25 percent more time dealing with alcohol-related encounters (51.2 hours; 3,073 minutes) than they did attending to alcohol-related activities (40.8 hours; 2,448 minutes). Even so, this still represents less than 8 percent of all observed shift time during the study period (see Figure 8, below).



But, when the focus is narrowed, the picture of alcohol involvement changes dramatically. By using only the *total time spent on encounters* as the percentage base, the amount of time spent on alcohol increases to just over 30 percent (see Figure 9, below). In practical terms, this means that alcohol will be implicated in one out of every three minutes patrol officers spend with the public. Considering the limited amount of time patrol officers spend with the public to begin with (see Figure 2), future research should concentrate on the consequences of such “intense” alcohol involvement in police-public interactions.



CHAPTER SIX:

ESTIMATING THE IMPACT OF ALCOHOL USE ON THE ANCHORAGE POLICE DEPARTMENT

Financial costs

When discussing the impact public alcohol consumption has on the APD, one indicator of great interest is *financial cost*. Like other human service organizations that rely almost exclusively on human capital to perform their organizational functions, a large portion of the APD's budget is dedicated to direct personnel costs and indirect personnel support expenditures, such as equipment, training and supervision. Commitment of these finite resources to policing alcohol involved incidents is a direct monetary outlay. This section focuses on these direct costs and also notes other costs beyond the scope of the present report.

Recent budget estimates provided by the Anchorage Police Department show that it costs the city of Anchorage approximately \$91 per hour to maintain a line-level patrol officer on the street. This figure includes in-service training, supervision, and support staff costs, as well as all capital expenditures (patrol cars, communication equipment, weaponry, and so on) to place an officer in the field. If this \$91/hr estimate is calculated for a typical American work year of 2,000 hours, the total financial cost is approximately \$182,000 per officer, per year. With an estimated 202 sworn patrol officers (excluding sergeants and lieutenants) currently working in the APD Patrol Division, the total line-level personnel budget comes to \$36,764,000 annually. With these figures in hand, a preliminary estimate of the budgetary costs of public alcohol use on the APD can be produced using data from PASS.

Since 14.2 percent¹¹ of all patrol officer time is dedicated to alcohol-related events (activities + encounters), the simplest cost estimate to produce is to calculate 14.2 percent of all

¹¹ This finding of 14.2% of officer time dedicated to alcohol-related events represents an almost exact replication of previous research on this question. A previous study investigating alcohol and drug involvement in APD patrol work

patrol expenditures. Combining current budget estimates and time use data from the PASS study, the financial costs of public alcohol consumption for line-level personnel come to more than \$5.2 million annually.

While the PASS study was able to document direct costs for police patrol, two other costs warrant mention. The first is the amount of time lost through accidents and injuries resulting from policing public alcohol consumption. Budget lines generally are not dedicated for the amount of time that has to be made up when an officer has to miss work because of an injury attributable to an alcohol-related (or non alcohol-related) incident. Not only does the organization temporarily lose its capital investment in the officer for the period they are out of work, but it will also have to either hire a new officer to replace the injured one, or pay other officers overtime to make-up the lost time. The financial costs of the former may be as high as \$250,000 for the recruitment, training and certification of every new patrol officer hired, while the fiscal burden for overtime is roughly a 50 – 100 percent cost increase for every hour of lost time, depending on what type of overtime the department has to compensate (time-and-a-half vs. double-time).

A second set of important costs are what might be called “opportunity costs.” Opportunity costs are not directly connected to fiscal concerns; rather, they are the entire range of functional tasks patrol officers cannot engage in because they are occupied with alcohol-related incidents. Because time is a zero-sum entity, time spent policing public alcohol consumption is lost to other priority activities. And there is little the APD can do to alter the current allocation of officer time to alcohol-related tasks because it is, like most every municipal

conducted in the summer of 2002 (Myrstol, Giblin and Schafer 2003), which used modified officer logs to document officer activities and time allocation rather than outside observers, found that alcohol-related tasks consumed between 14% and 15% of patrol officer time. The convergence of findings demonstrated between these two methodologically distinct studies not only provides evidence of the accuracy of both studies, but it also suggests that alcohol-related time allocation does not vary seasonally for APD patrol.

police agency in the United States, structured to *respond* to service demands generated by the public. Therefore, the only way the effects of time commitments to policing alcohol consumption on other priorities can be overcome is to increase the size of the “pie” – purchase more time.

Finally, in addition to the hard, cold money issues surrounding the policing of public alcohol use are the “softer” issue of its subjective human impacts¹². As absurd as it may sound, it is easy for non-police to forget (or not realize at all) that police officers are people too. Just like the rest of us, they are influenced by the sociological and psychological experiences they encounter while on the job. Patrol officers’ attitudes, perceptions, beliefs and values are shaped by, among other things, their experiences and interactions working the street. To the extent that frequent exposure to alcohol-related encounters contributes to negative attitude orientations among patrol officers, there is the risk that the quality of police-citizen interactions, and thus the quality of policing, will suffer. The potential for this sort of negative consequence (“cost”) would seem to be relatively high considering the frequency of alcohol-related encounters between Anchorage patrol officers and members of the public, in a local institutional context of limited police-public interaction.

¹² *These issues will be examined in some detail in the second phase of PASS and published in a Phase II report (expected publication date: Summer 2004).*