

**Alaska Alcohol Safety Action Program  
ICHS Efficacy Study Report**

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## Abstract

Alaska's Alcohol Safety Action Program (ASAP) is based on a national model that seeks to reduce the frequency of alcohol-related traffic accidents through early identification of problem-drinkers and the initiation of appropriate interventions to deter alcohol-related drinking behavior.

The Institute for Circumpolar Health Studies assisted the state of Alaska Division of Alcohol and Drug Abuse to update data which measures the effectiveness of the ASAP program in reducing the number of re-offenses of alcohol-related offenders.

This descriptive study intended to first collect and merge alcohol offender and treatment data from selected ASAP locations throughout Alaska in order to gain an understanding of the arrest, adjudication, intake, and treatment processes across the state. Second, the study evaluated ASAP client characteristics within populated and urban areas and compared the data to the earlier studies of Kelso (1980) and Arajii (1994). Third, the study evaluated the data to determine differences across the selected ASAP sites. Fourth, the study assessed and identified significant determinants for becoming a re-offender. Fifth, the length of time for an ASAP client to re-offend and the variables associated with moderating that time was evaluated. Finally, recommendations were provided regarding intake data protocol enhancement, process improvement strategies, and identification of the "high risk" problem drinker.

The recommendations include:

- Evaluate and redesign (possibly simplify) intake processes and data collection protocols by specifying common practices and identifying required data fields.
- Evaluate the issues and characteristics (e.g. socioeconomic, cultural, judicial, treatment environment, etc) that delineate the differences between the four ASAP sites, and modify intervention and treatment processes that are consistent with the community environments.
- Initiate process improvement activities to evaluate and redesign the ASAP client activities and functions that take place during the times from arrest to conviction and conviction to assignment. Include law enforcement, courts, ASAP, and treatment providers in the process improvement and redesign efforts.
- Establish a *high-risk* ASAP client profile and redesign the identification, adjudication, intake, and treatment processes to target this population and then evaluate the efficacy of the modifications.
- Develop and refine predicative models that can be use by ASAP staff in the field that will facilitate the identification of *high-risk* clients as early in the arrest, conviction, assignment and treatment process as possible.

## I. Introduction

It is the conviction of the Alaska Division of Alcohol and Drug Abuse that “alcoholism and drug addiction constitute a primary, progressive, and fatal disease, but one that can and must be prevented and treated” (Jones, Message from the Director, Division of Alcohol and Drug Abuse, 1998). In the *Guiding Principles* of the division, Director Jones specified that services are most effective when they:

1. Maximize personal choice and individual control;
2. Are in harmony with the needs and desires of those served;
3. Empower individuals and communities to define and meet their responsibilities; and
4. Respect and build upon the unique qualities and strengths of the cultures of the persons served (Message from the Director, 1998, p. 1).

To this end, the department has continued to implement and support the Alcohol Safety Action Program (ASAP) in its communities since 1977. ASAP is based on a national model that seeks to reduce the frequency of alcohol-related traffic accidents through early identification of problem-drinkers and the initiation of appropriate interventions to deter alcohol-related drinking behavior. Its function is to “provide case management, monitoring, and accountability for DWI and other alcohol-related misdemeanor cases in which the defendant is required by the court to complete alcohol education or treatment” (*Anchorage Alcohol Safety Action Program Annual Report Annual Report, 1991-92, p. 1*).

### **Development of National Alcohol Safety Assistance Programs**

Prior to 1970, systems for writing laws related to driving while intoxicated (DWI), and enforcing those laws were solely the responsibility of the states. With foundation of the Department of Transportation (DOT) in 1967, national alcohol-related safety gained national attention. The 1968 *Secretary’s Report to Congress on Alcohol and Highway Safety* “illuminated the extent of the losses due to drunk driving and focused on the role of the problem drinker in these accidents” (*Summary of National Alcohol Safety Action Projects, 1979, p.2*). This report had a major influence on Congress, and galvanized support for a nation-wide effort to assist communities to better deal with enforcement and adjudication of criminal behavior resulting from alcohol and drug abuse.

In 1971, the National Highway Safety Bureau (which later became the National Highway Traffic Safety Administration, NHTSA) sponsored the first nine demonstration sites for the Alcohol Safety Assistance Program. In subsequent years of funding (through 1975), ASAP national sites were expanded to 35 states. The safety programs were unique in that they attempted to integrate the services of the courts, law enforcement, substance abuse treatment facilities, and educational programs.

The communities were supported by federal initiatives in several areas. NHTSA established a special office to work with local governments to ensure uniform programming throughout the pilot project sites. This office also provided resources to help local professionals deal with the increased number of misdemeanor cases arising from the stricter enforcement systems. In addition, the ASAP efforts were directed toward the development of systems for early identification and treatment of “problem drinkers” in order to reduce the recidivism rates of defendants.

### **Efficacy of National Demonstration Efforts**

In the 1979 *Summary of National Alcohol Safety Action Projects*, the 35 project sites were reported to have been “Generally successful in meeting their most immediate goals” (p. 3). The number of arrests for DWI infractions doubled or tripled in most locations. Most communities were successful in developing court-to-treatment liaison systems, although the configuration of the programs varied. The 1979 report showed that “approximately a quarter of a million drunk drivers, of which two-thirds were problem drinkers, were referred to education or treatment programs by the ASAPs” (*Summary of National Alcohol Safety Action Projects*). On another front, mass education campaigns were developed and distributed nationally with the intent to enlist the support of the American public in decreasing the prevalence of alcohol-related accidents.

Independent evaluations determining the success of the initial demonstration sites appeared to be conflicting. Cameron (1979) claimed that several individual programs showed positive trends in reducing both alcohol-related traffic fatalities and DWI recidivism rates. Several studies demonstrated that the emphasis of ASAP on reducing the blood alcohol content (BAC) of drivers was successful in selected communities. Levy, Voas, Johnson and Klein (1977), for example, found a statistically significant reduction in the number of drivers with illegal BACs in random roadside surveys in 19 of the 35 original research sites. On the other hand, Jones and Joscelyn (1978) indicated that, in their review of efficacy studies, there were not conclusive data to demonstrate definitive national success because of the ASAPs.

### **Evolution of National ASAP Projects**

Since 1975, and with the end of funding for national ASAP demonstration projects, both local and national efforts to stem the tide of alcohol-related misdemeanors have continued to evolve. One reason for the demise of many of the original ASAP projects may have been the tendency to “succumb to political pressure to produce quick results, rather than investing in the careful planning and scientific evaluation necessary to determine which countermeasures used in the program were effective” (Moore and Gernstein, 1982).

After the first ASAP projects, innumerable local, state, and national initiatives have attempted to fill the need for appropriate dispensation of cases in which defendants experienced some degree of alcohol or drug intoxication. Crucial to these efforts was

establishment of databases to track ongoing data to monitor alcohol-related accidents. One such system was the Fatality Analysis Reporting System (FARS) sponsored by NHTSA's National Center for Statistics and Analysis.

Among the most recent federal initiatives was President Clinton's 1998 "Impaired Driving Program Directive" (*National Highway Traffic Safety Administration Liaison Report*, March, 1998). Included in the President's message were directives to the Secretary of Transportation, Congress, other federal agencies, the states, and other concerned safety groups to work together to lower legal blood alcohol content levels from .10 BAC to .08.

In addition, NHTSA established the "Partners in Progress" group which assembled a "broad array of partners to identify strategies and action steps toward reaching the President's national goals" (*National Highway Traffic Safety Administration Liaison Report*, March, 1998). This group developed *Partners in Progress: An Impaired Driving Guide for Action*, which outlines actions at the state and local levels to help achieve the national goal of reducing alcohol-related fatalities to 11,000 by the year 2005.

### Current National Statistics and Trends

NHTSA defines a fatal traffic crash as "being alcohol-related if either a driver or a non-occupant (e.g., pedestrian) had a BAC of .10 grams per deciliter or greater in a police-reported traffic crash" (U.S. Department of Transportation, National Highway Traffic Safety Administration, *Traffic Safety Facts*, 1996, p. 1). From data compiled by the Fatality Analysis Reporting System (FARS), it is known that there were 17,126 alcohol-related fatalities in 1996, which is 40.9% of the total traffic fatalities for the year (DOT, NHTSA, p. 1). This figure represents a

**In 1996, 17,126 fatalities in alcohol-related crashes represent an average of one alcohol-related fatality every 31 minutes.**

decrease by one percent from 1995 to 1996. Of greater significance for the prevention efforts is the fact that the 1996 data show a decrease of 29% from 1986. Although research data may not be specific about the exact variables that contributed to the decrease, the numbers do represent a very real savings in terms of human lives. Nonetheless, 17,126 deaths are still far above the national target of 11,000 by the year 2005.

**More than 321,000 persons were injured in crashes where police reported that alcohol was present – An average of 1 person injured approximately every 2 minutes.**

### Implementation of the Alaska Alcohol Safety Action Programs

In 1977, Anchorage became the first pilot site for ASAP in Alaska (*Anchorage Alcohol Safety Action Program Annual Report, 1991-1992*). By 1992, 15 ASAP projects had been started including those in Anchorage, Bethel, Cordova, Dillingham, Fairbanks, Homer, Juneau, Kenai, Ketchikan, Kodiak, Kotzebue, the Mat-Su Valley, Seward,

Sitka and Valdez. By 1993, two sites, Cordova and Sitka, had closed due to lack of funding. The ASAP in Valdez also lost state funding in 1993, but the Municipality of Valdez continued the program until 1997. At that time, the Valdez Counseling Center, which administered ASAP, provided the only screening, assessment, and treatment services in Valdez. Thus, the screening required by ASAP caused a redundancy in services, so the program was essentially integrated into the normal activities of the Counseling Center. This agency continues to accept ASAP referrals, but on an informal and more efficient basis (Jeanne Wilson, Director, Valdez Counseling Center, 6/26/98, personal communication).

The operation and administration of the ASAP sites varies across Alaska. For example, the Anchorage program (Anchorage ASAP Misdemeanor Services) is operated by the state and organized to coordinate and manage services. In other communities, ASAP functions are contracted to existing agencies to provide services. In areas where only one treatment and assessment center exists, ASAP funding may assist to integrate screening and liaison activities into its operation.

The original goals for the Alaska ASAPs were defined in the 1991-92 Annual Report (*Anchorage Alcohol Safety Action Program Annual Report, 1991-1992*).

1. Routine court referral of all persons convicted of DWI.
2. Referrals of alcohol-involved defendants for offenses other than DWI.
3. Background investigations on all referrals to screen offenders for the early identification of problem drinkers.
4. Provide alcohol education/treatment recommendations and assignments as possible—additional or alternative conditions of court sentence.
5. Monitor offenders' alcohol education/treatment progress.
6. Monitor offenders' program progress in judicial assignments other than alcohol education and treatment.
7. Provide active and timely follow-up action in cases of noncompliance with alcohol education/treatment condition of sentence.
8. Provide active and timely follow-up action in cases of noncompliance with program assignments ordered to ASAP for case management.
9. Provide monthly management information regarding program activities.
10. Provide overall program management to facilitate cooperation of highway safety, criminal justice, and health care delivery systems.

11. Provide a community resource for DWI and/or criminal justice and information statistics.
12. Provide standardization and coordination of the statewide ASAP network.
13. Provide evaluation and onsite technical assistance to each ASAP throughout Alaska.

### **Description of ASAP Services**

The purpose of Alaska ASAPs is specified by the Director of the Alaska Division of Alcoholism and Drug Abuse (ADA).

Alcohol Safety Action Programs (ASAP) provide alcohol screening and case management of civil and criminal justice cases. The basic ASAP function is accountability and case management for DWI and other alcohol/drug related misdemeanor cases. ASAP operates as a neutral link between the justice and health care delivery systems. This involves screening cases referred from the district court into drinker classification categories, as well as managing and monitoring cases throughout education and/or treatment requirements (ADA, 1998, p.1).

To qualify for the ASAP program in any community, an individual must be involved in a civil or criminal justice case. Most participants in ASAP are assigned as a condition of sentencing; however, some cases may be referred for assessment prior to sentencing. Occasionally, clients with no record of a conviction will self refer for assessment and treatment. Screening procedures to assess attitudes and patterns of drinking include a structured interview and a client completed questionnaire. In addition, documentation of the client's criminal and arrest records, blood alcohol content (BAC) for the current arrest, and other pertinent information is collected. Utilizing the information derived from the interview, survey, and other collected data, ASAP providers classify clients as problem drinkers or non-problem drinkers. If the information is not conclusive for drinker classification, the clients are referred for a more intensive diagnostic evaluation.

Problem drinkers are those who qualify according to the following criteria (Araji, Smoke, Schwartz & Thomas, 1994).

1. The client has two DWI offenses within a five-year period.
2. The screening instrument classifies the client as a problem drinker.
3. The BAC of the client is .20 or above.
4. The client has three or more DWIs in a lifetime.

5. The client is classified through the screening instrument as a presumptive problem drinker and the BAC is .15 - .199.
6. The client states he/she is a problem drinker.
7. The client has had a clinical determination of problem drinking within a five-year period.
8. A score of 85 or more (With no prior DWI arrests) or 50 or more (with prior DWI arrests) on the Mortimer-Filkins Test.

Non-problem drinkers are those who do not meet the criteria listed above, and do not require further evaluation.

After initial screening and classification, offenders are referred for appropriate services by ASAP staff. Clients not considered to be problem drinkers are assigned to alcohol education programs. Others, who may be problem drinkers, are usually assigned to substance abuse treatment programs for required services. In both cases, follow-up occurs and clients are monitored to ensure compliance. Further referral for those who do not comply with recommended services may also occur.

### **Efficacy of ASAP in Alaska**

In an initial study, Kelso (1980) conducted a "limited evaluation of the Anchorage ASAP program efforts" (p.4). The purpose of the study was to evaluate the single outcome measure of criminal re-arrest. The re-arrest rates of clients involved in the Anchorage ASAP screening and treatment activities were compared with the re-arrest rates for a group of offenders who had not been assigned to ASAP (i.e., control group).

Kelso's data generally supported the effectiveness of ASAP in lowering rates of recidivism for both problem drinkers and non-problem drinkers. The study reported data for offenders who "survived" one year without re-arrest. Of those non-problem drinkers who were referred to ASAP, 94.1% who completed the ASAP alcohol education program survived the first year without re-arrest. Only 83.3% of the offenders who were referred and did not complete the training, made it through one year while 89.5% of the non-ASAP group of non-problem drinkers survived one year without a subsequent arrest. Among problem drinkers, approximately 86% of the ASAP clients successfully survived one year whether or not they had completed their recommended treatment programs. In contrast, only 74.6% of the problem drinkers in the control group were not re-arrested within one year.

In 1994, Araj et al. published an evaluation of the Anchorage Alcohol Safety Program for FY 1991-1992. The purpose of the study was to answer three primary questions.

1. Does participation in the Anchorage ASAP have a positive influence on non-recidivism?
2. What factors tend to be the best predictors of recidivism rates (e.g., gender, age, race, and completion of ASAP screening, education, BAC levels, type of offense)?
3. What factors predict problem drinkers from non-problem drinkers?

The evaluation study used a random sample of cases from 1989 ASAP-assigned files. The researchers selected 25% of the 2,111 possible cases for a final selection of 528. Of those cases chosen, 80% of the offenders were male and 20% were female. Approximately two-thirds were Caucasian (66%), 23% were Native Alaskans or American Indians, 7% were classified as “Black,” and 4% were from other racial groups. The largest age group represented was between 20 – 39 years of age (77%), followed by ages 40 – 59 (14%), under 20 years (8%), and over 60 (1%).

Other data of interest indicated that of the 528 cases, 152 offenders had prior DWI cases assigned to the ASAP program. The number of prior DWIs ranged from one to five. Of the cases studied, the BAC levels tended to be greatest among Native offenders compared to other ethnic groups. In addition, clients over 30 years-of-age had the highest average BAC levels at the time of arrest.

The Araji et al. study found the Anchorage ASAP program to be “very effective in deterring offenders” (p.3). Of the files studied, only 175 offenders were arrested and assigned to ASAP a second time within one year. Sixty-nine cases were assigned a third time and 27 a fourth time.

In comparison with the Kelso study, the 1980 study had approximately twice as many non-problem drinkers and 17% fewer problem drinkers. Araji et al. suggested this to be a trend toward more problem-drinker referrals to the ASAP and fewer non-problem drinkers (p.6). Another comparison showed an 8% decrease in male offenders and 4% increase in females. All ethnic groups had a slight increase in the number of arrests.

Both studies concluded that ASAP was successful in reducing recidivism rates for alcohol-related DWIs. Both concluded that decreases were more significant for non-problem drinkers than for problem drinkers, and they felt screening was a critical addition to the adjudication process.

### **Current ASAP Evaluation Project**

**Scope of the Evaluation.** The Institute for Circumpolar Health Studies (ICHS) proposed to assist the state of Alaska Division of Alcohol and Drug Abuse to update data which measures the effectiveness of the ASAP program in reducing the number

of re-offenses of alcohol-related offenders. Specifically, this evaluation was intended to do following:

- 1) Collect a random sample of ASAP admissions for the year 1994 to determine:
  - a) the demographic characteristics
  - b) the extent of the client's alcohol abuse, as measured by the BAC, Mortimer-Filkins or other appropriate measures,
  - c) the characteristics of the referral to alcohol education or treatment, and
  - d) the number of clients who re-offend,
- 2) Determine the timeliness of court actions on non-compliance affidavits
- 3) Compare ICHS results with those from previous studies (Kelso and Araj),
- 4) Assemble information that can be used to target identified groups to the specific programs or strategies shown effective in reducing re-offenses.

ICHS will focus on ASAP clients receiving services in Anchorage, Fairbanks Mat-Su Valley and Juneau.

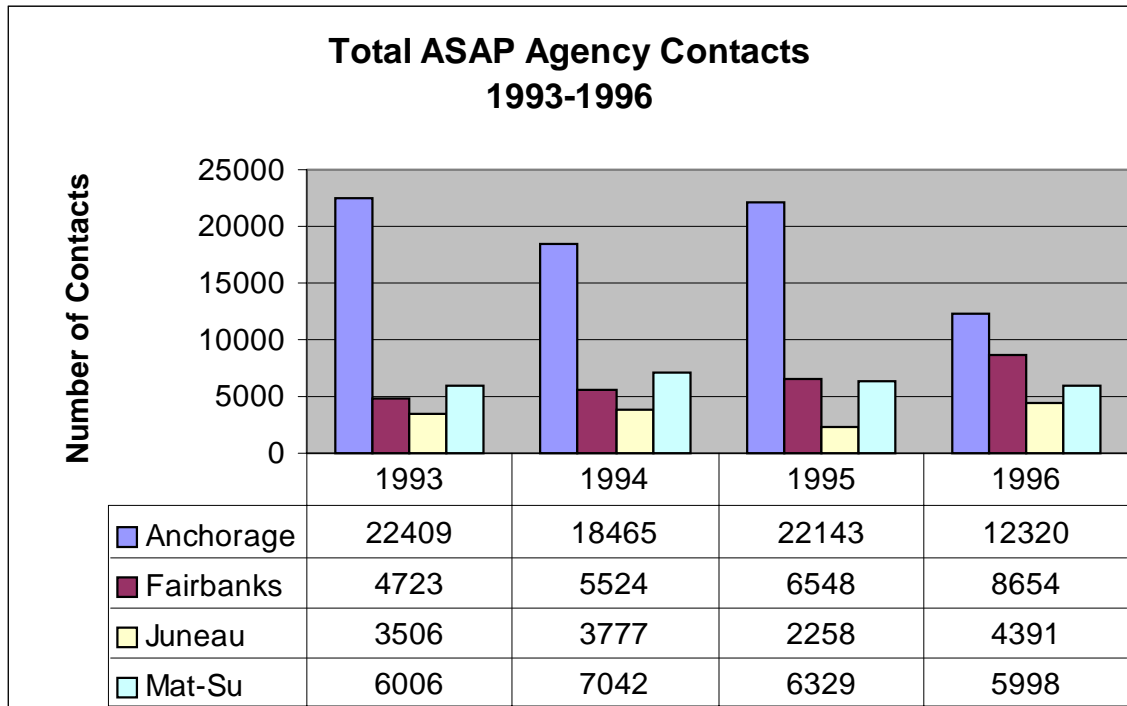
**Agency Contacts.** Figure 1 represents the number of agency contacts for each of the four ASAP programs that participated in this study. Of all of the programs, the Fairbanks ASAP program has shown the most consistent and dramatic growth. It has almost doubled the number of annual contacts between 1993 and 1996.

Also of particular note is the consistency of the services provided by the Mat-Su ASAP program. They have provided between 6,000 and 7,000 annual contacts per year over the four-year period.

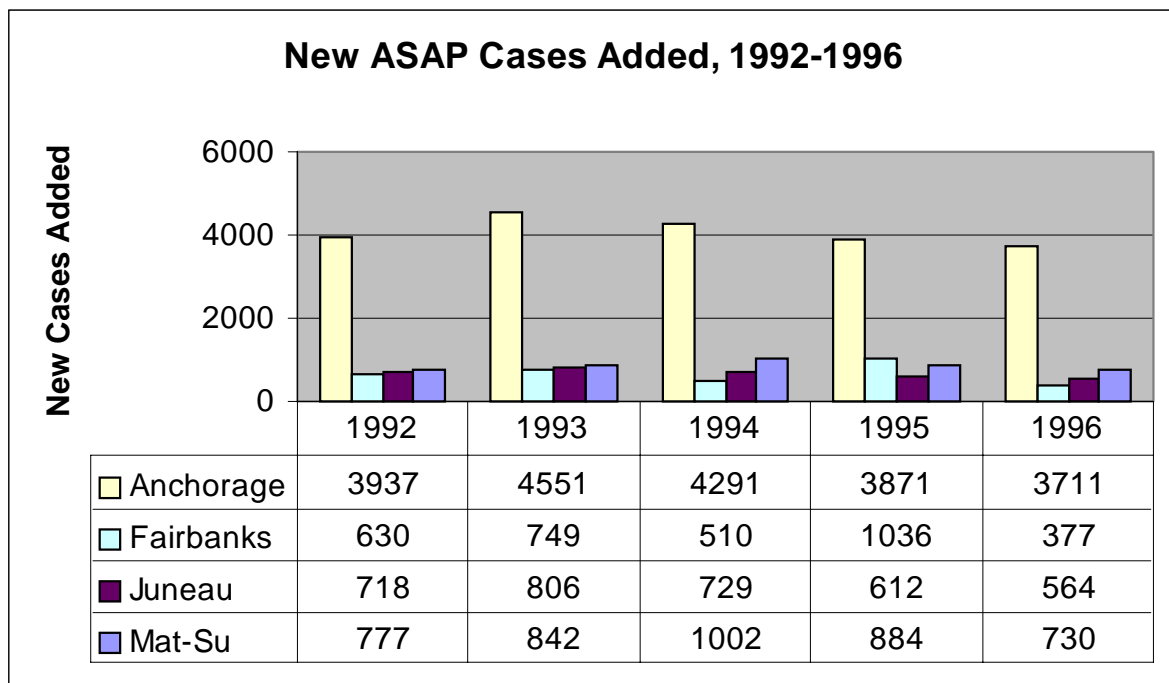
**New Cases.** Figure 2 shows the change in the number of new ASAP cases added to the client files in the four participating programs between 1992 and 1996. Regardless of catchment area size, all programs showed approximately the same number of new clients in 1992 and 1993. In 1994 (the period for this study), the number of new ASAP cases added to the caseload began to show far more variation. In 1994, for example, there was almost a two-fold difference between the Fairbanks and the Mat-Su programs.

However, in 1995, the Fairbanks program more than doubled the number of new cases added, then fell off dramatically in the following year. Other programs have been more stable in the number of cases added to their caseload.

**Figure 1. Total Agency Contacts**



**Figure 2. New Cases**



## II. METHOD

### The ASAP Process Flow

A review of the arrest, conviction, and treatment assignment processes was completed to determine intake, decision making, and data entry points for ASAP clients. Listed below is a component descriptor listing and a flow chart depicting the ASAP process.

1. **Arrest** – The client is arrested for a DWI or other alcohol or drug-related misdemeanor offense.
2. **Arraignment** – The client is arraigned and brought before the magistrate, whereby the magistrate establishes a trial or hearing date. If the offender pleads or is found guilty, he or she proceeds to sentencing.
3. **Sentencing** – Sentencing invokes different penalties, depending on whether the case is a DWI or some other alcohol-related offense that doesn't involve driving. Regardless of the offense, the sentence for all alcohol-related convictions includes an order to ASAP.
4. **Screening at ASAP Program Site** – After sentencing, the client reports to the ASAP program site to receive either a screening or a recommendation to another agency for evaluation. Once the onsite screening or offsite evaluation is complete, the client's drinking pattern is classified.
5. **Classification** – An ASAP counselor classifies the client's drinking status based on earlier screenings or evaluations. The classification may fall into one of four categories of varying seriousness with regard to the client's drinking patterns. The levels include non-problem drinker, pending, presumptive, or problem drinker. The majority of clients are classified into the non-problem or problem categories.
6. **Client Referral** – After classification, the ASAP counselor refers the client to appropriate treatment options based on the client's needs. It is the goal of ASAP counselors to recommend specific types of treatment assignments but not advocate any particular agency for that treatment. The counselors discuss and clarify what treatment options are available depending on the individual's situation and background. A client may then choose from any one of three general categories of treatment. The categories include non-profit treatment programs, for-profit programs, and military treatment programs. There may be a number of providers to choose from within each of these general categories as well.

Specific Type of Treatment – Although clients may choose from a variety of providers, they are required to complete the type of treatment assigned by the ASAP office. There are five categories of treatment assignment.

- a) Alcohol Information School (AIS) only – This is an assignment that could be made at any site and should only be assigned to clients classified as non-problem drinkers. However, it is possible for an outside agency providing an evaluation to recommend this treatment for clients classified as problem drinkers.
  - b) AIS and Victim's Panel – This is an assignment given primarily to the non-problem drinker. It includes an additional assignment to the victim's panel in Anchorage. Anchorage is the only site in the state that has a Victim's Panel. For the most part, Anchorage (and some Mat-Su) clients receive the Victim's Panel assignment.
  - c) Outpatient/Intensive Outpatient with Aftercare – This outpatient treatment program is generally assigned to client's classified as pending, presumptive or problem drinkers, but occasionally is also assigned to non-problem drinkers.
  - d) Inpatient with Aftercare – This assignment involves residential treatment and is only provide to problem drinkers.
  - e) Self-Help and Other – This assignment includes Alcoholics Anonymous, Narcotics Anonymous, and a number of other treatments used throughout the state. It is usually given as an additional assignment to any of the four standard treatments discussed earlier. At the discretion of the ASAP counselor, "other treatments" may be assigned in lieu of the standard approaches listed above.
7. **Reports to ASAP and Completes Assigned Treatment** – Once clients have been through the court system and received an order to report to ASAP for their assignments, they may or may not report and or complete any assigned treatments.
  8. **Recidivism** – Represents all 1994 offense cases that have a documented re-offense within three years of the clients' first conviction date. Recidivism is also an outcome variable for this study.
  9. **Non-compliance** – A client falls into non-compliance when he or she does not report to ASAP and or complete the treatment assignment (s).
  10. **Affidavit filed** – ASAP files an affidavit with the Prosecutor's Office or directly with the courts when acting on a non-compliance case. This provides a

sanction to act and follow-up with clients who have failed to observe court orders or complete ASAP treatment assignments.

Possible actions include:

- Petitions to revoke probation
- Bench warrants issued
- Orders to show cause issued
- Summons or Demand letters sent.
- Other

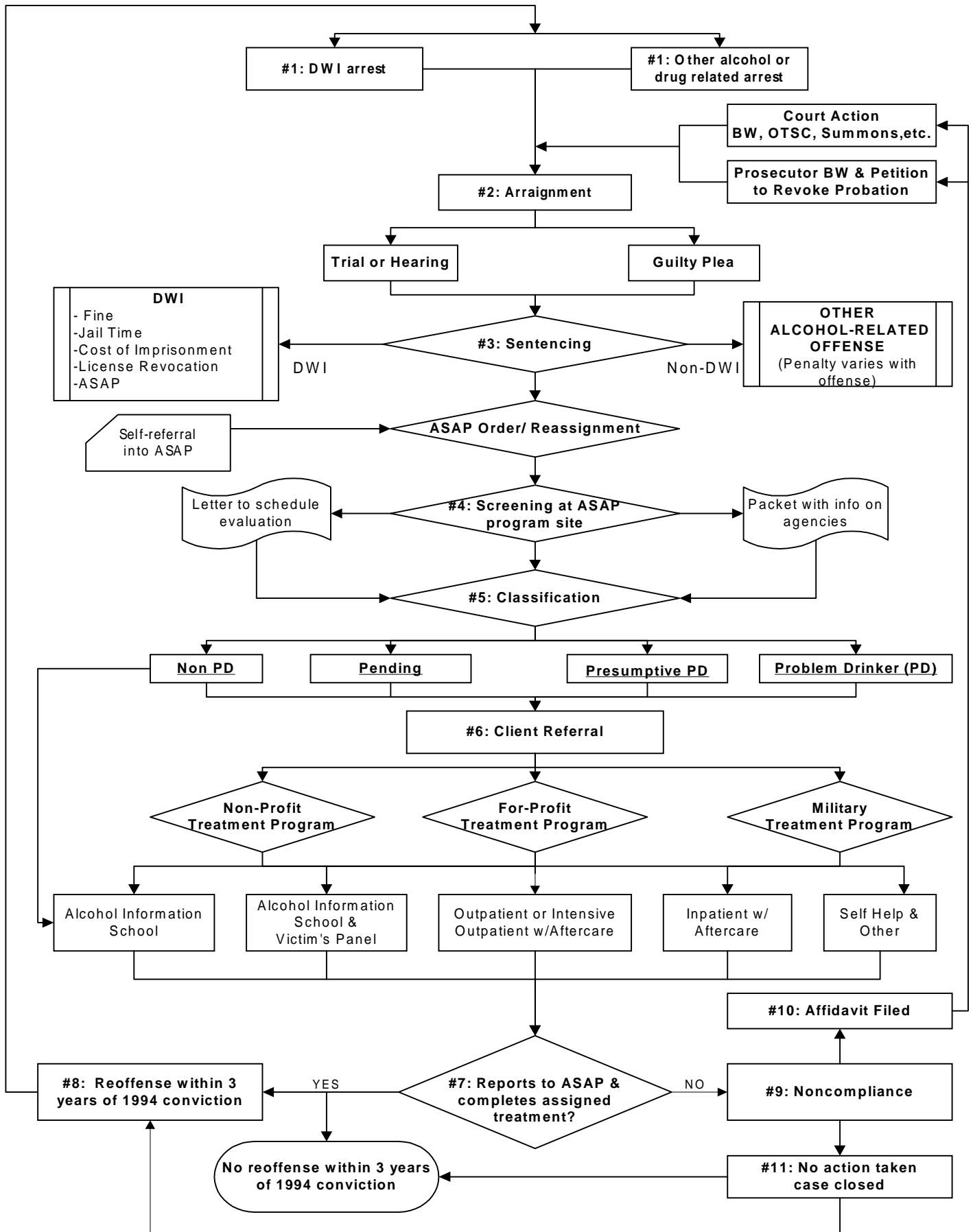
When the courts are successful with the affidavit, the client is brought back into the system for a new arraignment and re-enters the process for an additional treatment assignment.

11. **No action taken** - Action is not always taken in cases of noncompliance. This can happen for any one of the following reasons:

- The client is deceased.
- The client's probation runs out.
- The client may choose to take jail time instead of completing an ASAP assignment.
- A judge may close the case based on client's "substantial completion" of treatment.
- The DA or Prosecutor's office may not wish to pursue the noncompliance case.
- Some cases just "slip through the cracks."

In any case, clients may or may not commit a new offense in the 3 years following their 1994 conviction.

**Figure 3. ASAP Process Flow Chart**



**Sample Methodology.** The study database consists of data collected from various sources related to the ASAP program that is administered by the state of Alaska. The data were collected over a twelve-month period beginning in April of 1998. The database contains demographic, arrest and adjudication, and treatment information for persons arrested in 1994 and subsequently convicted of alcohol-related misdemeanors. It also includes recidivism data for the three-year period following their 1994 convictions. Data were collected for the ASAP sites located in Anchorage, Mat-Su, Fairbanks, and Juneau. The following is a discussion of the data collection methodology as well as the data integrity and quality issues that arose throughout the ICHS study.

A unique file number is assigned to each person who enters the ASAP monitoring program at each agency. Clients may accumulate multiple case numbers because of multiple offenses. All four sites utilize some method for listing and tracking the new files and cases as they occur. This information is contained within the "Norcom" computerized system at the Anchorage site and logbooks and Rolodex filing systems at the remaining three sites.

The sampling frames were established from the computerized client listings for Anchorage and the logbooks for Mat-Su and Juneau. The frames included all possible files that contained any 1994 case numbers for alcohol-related offenses. Even at the publication of this report, not all 1994 cases have entered the court system, and, consequently, the sampling frames were not 100 percent inclusive. It is estimated that the sampling frames for the Anchorage, Juneau, and Mat-Su sites contain approximately 95% of all available 1994 files.

Systematic random sampling was utilized to select file numbers from each of the three sampling frames. Every fifth file number was collected after an initial file number was randomly selected. If the sampling proceeded through more than one cycle of the frame, then the initial sample of the next cycle was also randomly selected. There were 424 file numbers pulled from a possible 2855 (15%) at the Anchorage site. The Mat-Su sample totaled 289 taken from 987 files numbers (29%). The Juneau sample consisted of 275 file numbers taken from 629 possible files (44%).

An appropriate sampling frame for Fairbanks could not be developed since the logbook for that year did not contain the actual case numbers that differentiated the 1994 cases from earlier cases. Therefore, the Fairbanks sample could not be randomly selected. A census count was attempted instead to collect data for files containing 1994 alcohol-related offenses. Due to time constraints and data quality issues however, the Fairbanks data collection effort was restricted to 1994 cases that received ASAP assignments before the end of 1994. It is estimated that this sample frame represents approximately 70% of the file population. The Fairbanks data may not be representative since the census could not be completed resulting in the sample not being randomly selected. The Fairbanks sample contains 311 files. The exact total number of files for this population is unknown.

Sample sizes for the selected sites varied according to data quality and availability. Larger samples were collected where data quality and record keeping were more questionable. The largest samples were obtained at the Fairbanks and Juneau sites.

## **Data Sources**

**Site Hardfiles.** The individual site hardfiles were the primary source of demographic, arrest, adjudication, and treatment data. There were a total of three file researchers involved in the interpretation and recording of information gleaned from these files. Hence, some of the data collected in this manner was of a subjective nature.

**Norcom files.** Electronic data files established by Norcom in Juneau provide some of the demographic, arrest, adjudication and treatment information for the Anchorage site only. Originally programmed in COBOL these files were converted to Excel flat files and e-mailed to ICHS in February of 1998. The Norcom files had a significantly higher amount of missing data in the ethnicity and gender variables than the data sources of the other three sites.

**APSIN files.** Files pulled from the Alaska Public Safety Information Network (APSIN) were obtained electronically through a computer connection established with permission of the State of Alaska Public Health and Safety Department (APHSD). These files were utilized as a source of demographic, arrest and conviction information. Again, this information was subject to the interpretations of ICHS researchers. In addition, staff members at the APHSD indicated that data quality issues exist for any information taken from the APSIN. Inaccurate data may exist in the system due to data entry errors and or the reporting of misinformation by the offenders themselves.

## **Data Quality**

**Missing Data.** There is a high degree of missing information in all data sources. This is especially true for the Fairbanks and Juneau data. These two sites in particular had serious record keeping discrepancies for the year 1994. The Norcom and APSIN files also had high degrees of missing data. The issue of missing data is important to consider because of the potential impacts it may have on the final analyses.

These impacts may include:

- 1) Increased variability in the data as sample size decreases.
- 2) Less sensitivity in the detection of significance differences between variables.
- 3) Increased risk of bias (non-representative data) when conducting statistical analyses.

**Incorrect Data.** A high degree of incorrect data was found throughout all data sources. The demographic, arrest, and conviction data often did not match between the hard files, Norcom, and APSIN files. When there were discrepancies, values from the APSIN data were selected for the final database. The most serious problems with data accuracy occurred at the Fairbanks and Juneau sites.

**Subjective Interpretation.** A significant amount of the data collected from the ASAP sites was subject to the interpretation of the researchers reviewing the case files. Therefore, an undetermined amount of data variation may exist as a result of interpretations made by different researchers. In order to minimize that variation, the same two researchers were utilized throughout the data collection process. A third researcher was involved for a short period during the data collection at the Fairbanks site.

**Other Issues.** Personnel issues at both the Juneau and Fairbanks sites during 1994 may have affected the accuracy of file and case data. Also, poor quality handwritten records also affected data accuracy at all four sites.

**Final Database.** The final database contains case information for 1,275 file numbers (or clients) with 81 data variables (excluding modified variables). The database was extensively edited to mitigate missing and poor quality data and formatted and stored in Microsoft - EXCEL spread sheet and SPSS analytic files.

### **Comparison of ASAP Sites and Data**

Staff from ICHS visited the ASAP programs in Anchorage, Fairbanks, Juneau and Mat-Su to review files and collect data for the current ASAP evaluation project. The client information available from the four ASAP sites contained similar data but, at times, was ordered differently in the clinical records and presented in a variety of formats.

The Mat-Su, Juneau, and Fairbanks ASAP programs are not computerized, and they currently utilize manual data input, storage, retrieval and tracking systems. In addition, Juneau and Fairbanks have experienced extreme personnel changes that may have affected the accuracy of data input as well as the consistency of treatment assignments and follow-up during the study period.

Table 1 provides a summary of the observed similarities and differences found at the four ASAP sites included in this study.

### III. Results

#### Population Characteristics of the ICHS, Araji, and Kelso ASAP Studies

**Problem and Non-Problem Drinkers Across Studies.** Table 2 presents the available population characteristic distributions across the ICHS, Araji, and Kelso ASAP studies. General population estimates for the four sites are also provided.

**Demographic Characteristics Across Alaska ASAP Studies.** Graphic representations were constructed of the population characteristics for the current ICHS and previous studies (Araji, et al. 1994 and Kelso, 1980) aggregated by problem and non-problem drinker classifications. Comparisons included the set of variables that were common across all the three studies. The population characteristics in which there were comparable data included gender (Figures 4), ethnicity (Figure 5), marital status (Figure 6), age category (Figure 7), education category (Figure 8), and employment status (Figure 9). There are remarkable population similarities across the three ASAP studies.

**Table 1. Data Characteristics by ASAP Site**

Category	Juneau	Fairbanks	Mat-Su	Anchorage
<b>Agency Management</b>	<p>Administered through the parent agency, National Council on Alcoholism and Drug Dependence, with funding provided through grants from the Dept. of Health and Social Services.</p> <p>The client fee in 1994 was \$50.00. The current client fee is \$100.00.</p>	<p>Administered through the parent agency, Fairbanks Native Association, with funding provided through grants from the Dept. of Health and Social Services.</p> <p>The client fee in 1994 was \$80.00. The current client fee is \$100.00.</p>	<p>Administered through the parent agency, Mat-Su Recovery Center, with funding provided through grants from the Dept. of Health and Social Services.</p> <p>The client fee in 1994 was \$75.00. The current client fee is \$100.00.</p>	<p>Administered directly through the Dept. of Health and Social Services, Division of Alcoholism and Drug Abuse.</p> <p>The client fee in 1994 was \$100.00. The current client fee is \$100.00.</p>
<b>Client tracking</b>	<p>Client records began anew each year with a typical client record format being Client No. xxx-year (91, 92, 93, 94, etc). Modified in 1997 to match the continuous tracking methods of the other three sites.</p> <p>Non-automation of system created difficulties in tracking non-compliant clients.</p>	<p>Client records continuous from the time of program start-up.</p> <p>Non-automation of system created difficulties in tracking non-compliant clients. Current effort being made to automate data collection and tracking at this site utilizing an Access database management system.</p>	<p>Client records continuous from the time of program start-up.</p> <p>System not automated but tracking and record keeping is better accomplished than in Fairbanks or Juneau. Probably due to more consistent and adequate staffing levels at Mat-Su office.</p>	<p>Client records continuous from the time of program start-up</p> <p>An automated system developed by Norcom is utilized for tracking and record keeping. System goes down often which creates long client backlogs because needed background info. is unavailable for treatment assessments.</p>
<b>Record keeping</b>	<p>The court often assigns different court case numbers to each charge on a multiple offense incident. This creates extra paperwork for the ASAP unit and the number of new cases contained in the ASAP Annual report may be inflated.</p> <p>The court actions are difficult to track in Juneau hard file records.</p>	<p>The same court case number is assigned to each of the charges on a multiple offense incident. Simplifies record keeping and minimizes paperwork</p> <p>The court action checklist in Fairbanks hard files makes court actions easier to track. Of special note is the "no action taken" category on the court action checklist</p>	<p>The same court case number is assigned to each of the charges on a multiple offense incident. Simplifies record keeping and minimizes paperwork</p> <p>Clients seem to have higher transfer rates between Mat-Su and Anchorage communities. If both agencies are including these "transfer" cases in their open case counts then their annual counts may be inflated.</p> <p>Court actions are not always clearly noted in hard file records.</p>	<p>The same court case number is assigned to each of the charges on a multiple offense incident. Simplifies record keeping and minimizes paperwork</p> <p>Clients seem to have higher transfer rates between Mat-Su and Anchorage communities. If both agencies are including these "transfer" cases in their open case counts then their annual counts may be inflated.</p> <p>Court actions are not always clearly noted in hard file records.</p>

<b>Relationship with the Courts</b>	Strong relationship with the courts but occasionally the Agency must deal directly with the court instead of the DA on noncompliance issues due to periodic heavy workloads that occur.	<p>Poor relationship with the courts until recently. Steady improvement has occurred since 1997.</p> <p>Until 1997, the court assigned ASAP to DWI cases primarily. Only after 1997 were ASAP assignments made on all types of alcohol-related offenses.</p> <p>Prior to 1998, the District Attorney would not pursue non-compliance cases.</p>	Strong relationship with the courts. New Court response plan put into place June of 1998 for handling noncompliance cases. Mimics the Anchorage "remand for suspended sentence" approach.	<p>Relationship is variable depending on which Judge is sitting on the case.</p> <p>First court system to establish the "remand for suspended sentence" approach. If the court enforces it, this allows only 6 mos. for treatment completion after an initial failure to complete treatment.</p>
<b>Other court factors</b>	<p>One-year probationary period typically assigned to first time DUI cases.</p> <p>Two to three judges hear the Juneau cases.</p>	<p>One-year probationary period typically assigned to first time DUI cases.</p> <p>Five to six judges hear The Fairbanks cases.</p> <p>ASAP assignments were made of all other Alcohol-related misdemeanor offenses, in addition to DWIs, only after 1997.</p>	<p>Three to five year probationary period typically assigned to first time DWI cases.</p> <p>One judge and one magistrate hear the Mat-Su cases</p>	<p>Three to five year probationary period typically assigned to first time DWI cases.</p> <p>Ten judges and five magistrates hear the Anchorage cases.</p>
<b>Treatment Options</b>	<p>Military programs do not apply to the Juneau area, and no military treatment programs exist.</p> <p>The Juneau ASAP program includes no victims panel.</p> <p>In January 1998, Juneau started an 18-hour program at the Tongass treatment center that falls somewhere in between an AIS program and an outpatient program.</p>	The Fairbanks ASAP program includes no victims panel.		

**Table 2: Comparisons to Earlier ASAP Studies**

<b>SAMPLE SIZE</b>	<b>Kelso (1980)</b> 1978 Data N=1154	<b>Araji (1994)</b> 1989 Data N=528	<b>ICHS (1998)</b> 1994 Data N=1514
<b>TYPE OF CASE</b>			
Non-DWI	X (X%)	178 (34%)	481 (38%)
DWI	<u>X (X%)</u>	<u>330 (63%)</u>	<u>794 (62%)</u>
Total	X (X%)	508 (97%)	1275 (100%)
<b>DRINKER CLASS</b>			
Non-Problem	530 (46%)	134 (25%)	332 (26%)
Problem	<u>624 (54%)</u>	<u>374 (71%)</u>	<u>605 (48%)</u>
Total	1154 (100%)	508 (96%)	937 (74%)
<b>GENDER</b>			
Male	963 (83%)	398 (75%)	1030 (81%)
Female	<u>158 (14%)</u>	<u>97 (18%)</u>	<u>245 (19%)</u>
Total	1121 (97%)	495 (93%)	1275 (100%)
<b>ETHNICITY</b>			
Black	25 (2%)	30 (6%)	53 (4%)
Caucasian	610 (53%)	316 (60%)	894 (70%)
Native	97 (8%)	110 (21%)	312 (25%)
Other	<u>15 (1%)</u>	<u>21 (4%)</u>	<u>13 (1%)</u>
Total	747 (64%)	477 (91%)	1275 (100%)
<b>MARITAL STATUS</b>			
Divorced/Separated	197 (17%)	101 (19%)	241 (19%)
Married	320 (28%)	113 (21%)	239 (19%)
Single	385 (33%)	239 (45%)	538 (42%)
Widowed	<u>14 (1%)</u>	<u>2 (&lt;1%)</u>	<u>11 (&lt;1%)</u>
Total	916 (79%)	455 (85%)	1029 (81%)
<b>AGE</b>			
19 and Younger	78 (7%)	42 (8%)	81 (6%)
20-39	725 (63%)	403 (76%)	867 (68%)
40-59	305 (26%)	75 (14%)	305 (24%)
60 and Older	<u>39 (3%)</u>	<u>7 (1%)</u>	<u>21 (2%)</u>
Total	1147 (98%)	527 (99%)	1274 (100%)
<b>EMPLOYMENT</b>			
Unemployed	300 (26%)	145 (27%)	369 (29%)
Employed	<u>622 (54%)</u>	<u>301 (57%)</u>	<u>588 (46%)</u>
Total	922 (80%)	446 (84%)	975 (75%)
<b>EDUCATION</b>			
<12 Years	207 (18%)	75 (14%)	269 (21%)
12 Years	435 (38%)	228 (43%)	576 (45%)
>12 Years	<u>215 (19%)</u>	<u>148 (28%)</u>	<u>261 (24%)</u>
Total	857 (75%)	451 (85%)	1106 (87%)
<b>ASAP SITE</b>			
Anchorage	1154 (100%)	528 (100%)	424 (33%)
Fairbanks	X	X	302 (24%)
Juneau	X	X	272 (21%)
Mat-Su	X	X	277 (22%)
<b>Total</b>	1154 (100%)	528 (100%)	1275 (100%)

X = Data not available

**Table 2 (Cont.): Comparisons to Earlier ASAP Studies**

<b>ICHS (1998)</b>	<b>ICHS-Anchorage</b> 1994 Population Estimates	<b>ICHS-Fairbanks</b> 1994 Population Estimates	<b>ICHS-Juneau</b> 1994 Population Estimates	<b>ICHS-MatSu</b> 1994 Population Estimates
<b>TYPE OF CASE</b>				
Non-DWI	X (X%)	X (X%)	X (X%)	X (X%)
DWI	<u>X (X%)</u>	<u>X (X%)</u>	<u>X (X%)</u>	<u>X (X%)</u>
Total	X (X%)	X (X%)	X (X%)	X (X%)
<b>DRINKER CLASS</b>				
Non-Problem	X (X%)	X (X%)	X (X%)	X (X%)
Problem	<u>X (X%)</u>	<u>X (X%)</u>	<u>X (X%)</u>	<u>X (X%)</u>
Total	X (X%)	X (X%)	X (X%)	X (X%)
<b>GENDER*</b>				
Male	130,979 (52%)	43,103 (53%)	14,492 (51%)	24,873 (52%)
Female	<u>122,581 (48%)</u>	<u>38,735 (47%)</u>	<u>13,970 (49%)</u>	<u>22,775 (48%)</u>
Total	253,560 (100%)	81,838 (100%)	28,462 (100%)	47,648 (100%)
<b>ETHNICITY**</b>				
Black	16,938 (6%)	6,050 (7%)	333 (1%)	443 (1%)
Caucasian	204,454 (78%)	69,782 (80%)	23,186 (79%)	45,227 (91%)
Native	16,171 (6%)	5,982 (7%)	3,792 (13%)	2,439 (5%)
Other	<u>25,067 (10%)</u>	<u>5,928 (7%)</u>	<u>2,226 (8%)</u>	<u>1,474 (3%)</u>
Total	262,630 (100%)	87,742 (100%)	29,537 (100%)	49,583 (100%)
<b>MARITAL STATUS</b>				
Divorced/Separated	X (X%)	X (X%)	X (X%)	X (X%)
Married	X (X%)	X (X%)	X (X%)	X (X%)
Single	X (X%)	X (X%)	X (X%)	X (X%)
Widowed	<u>X (X%)</u>	<u>X (X%)</u>	<u>X (X%)</u>	<u>X (X%)</u>
Total	X (X%)	X (X%)	X (X%)	X (X%)
<b>AGE*</b>				
19 and Younger	82,773 (33%)	28,517 (35%)	9,551 (34%)	17,118 (36%)
20-39	92,640 (37%)	30,597 (37%)	8,473 (30%)	14,264 (30%)
40-59	61,904 (24%)	18,082 (22%)	8,197 (30%)	12,563 (26%)
60 and Older	<u>16,243 (6%)</u>	<u>4,642 (6%)</u>	<u>2,241 (8%)</u>	<u>3,703 (8%)</u>
Total	253,560 (100%)	81,838 (100%)	28,462 (100%)	47,648 (100%)
<b>EMPLOYMENT*</b>				
Unemployed	7,611 (6%)	3,402 (8%)	985 (6%)	2,582 (10%)
Employed	<u>127,617 (94%)</u>	<u>37,893 (92%)</u>	<u>15,419 (94%)</u>	<u>22,875 (90%)</u>
Total	135,228 (100%)	41,295 (100%)	16,404 (100%)	25,457 (100%)
<b>EDUCATION***</b>				
<12 Years	13,139 (10%)	4,412 (10%)	1,701 (10%)	2,861 (12%)
12 Years	34,504 (25%)	12,251 (28%)	4,137 (25%)	7,855 (34%)
>12 Years	<u>89,012 (65%)</u>	<u>26,625 (62%)</u>	<u>10,931 (65%)</u>	<u>12,724 (54%)</u>
Total	136,655 (100%)	43,288 (100%)	16,769 (100%)	23,440 (100%)

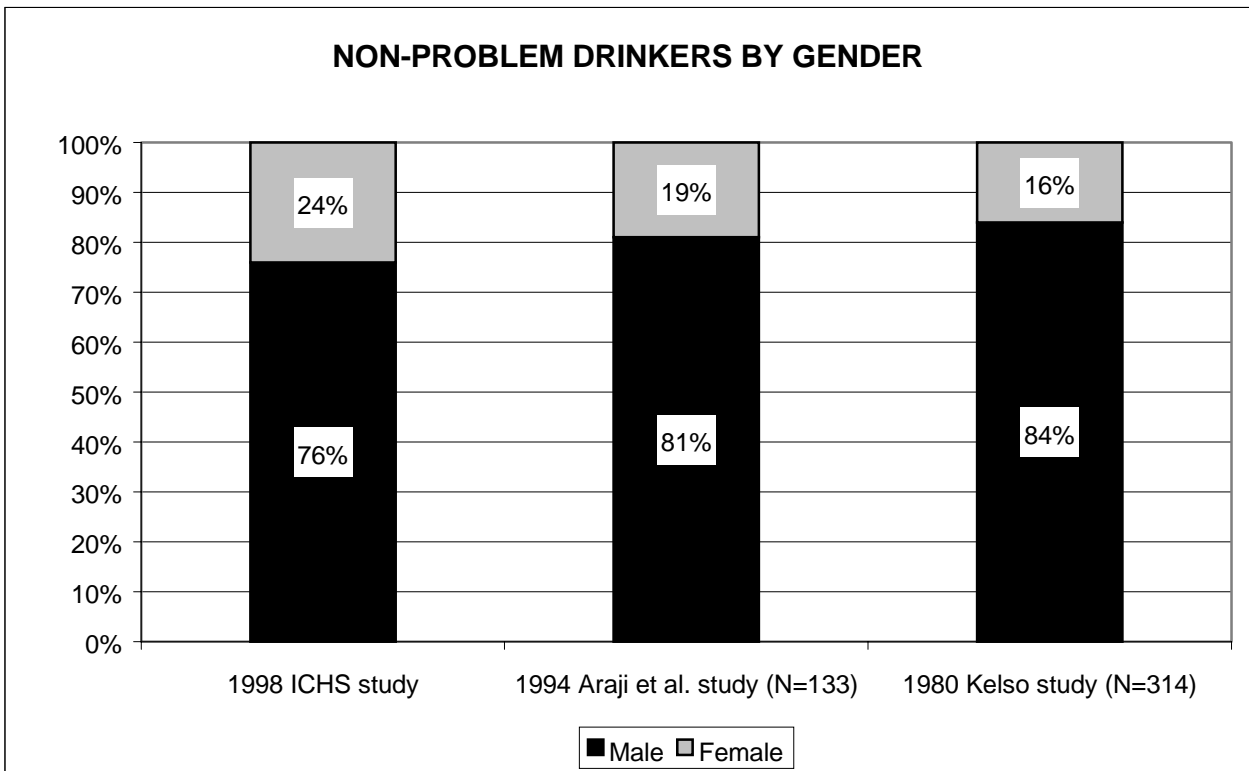
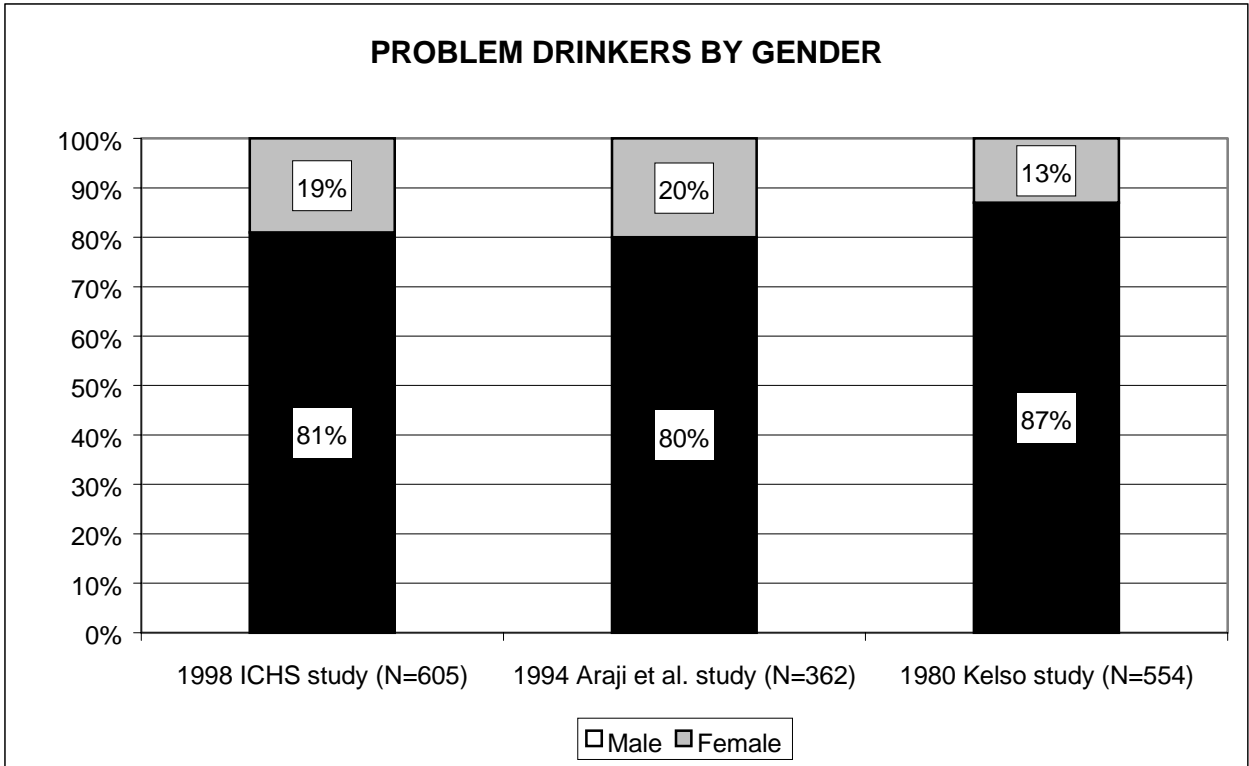
\* Dept of Labor, Research and Analysis Data Base, 1994.

\*\* Oregon State University, Government Information Sharing Project, 1999.

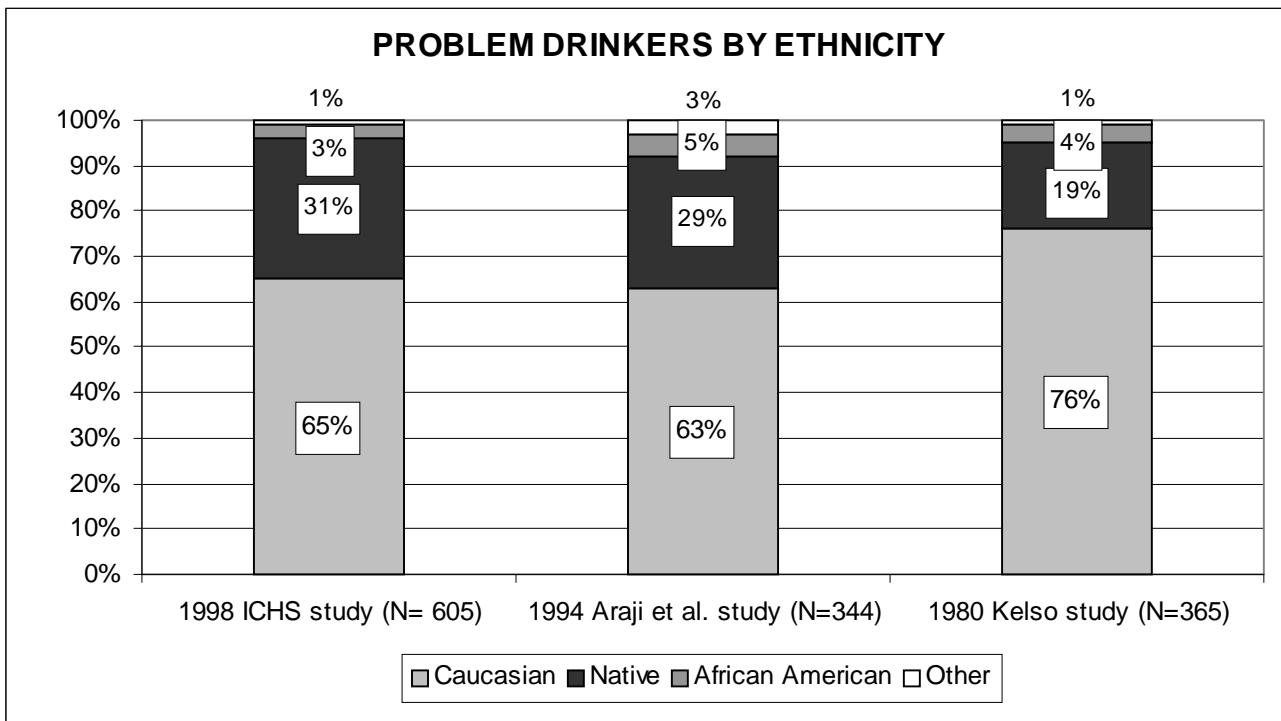
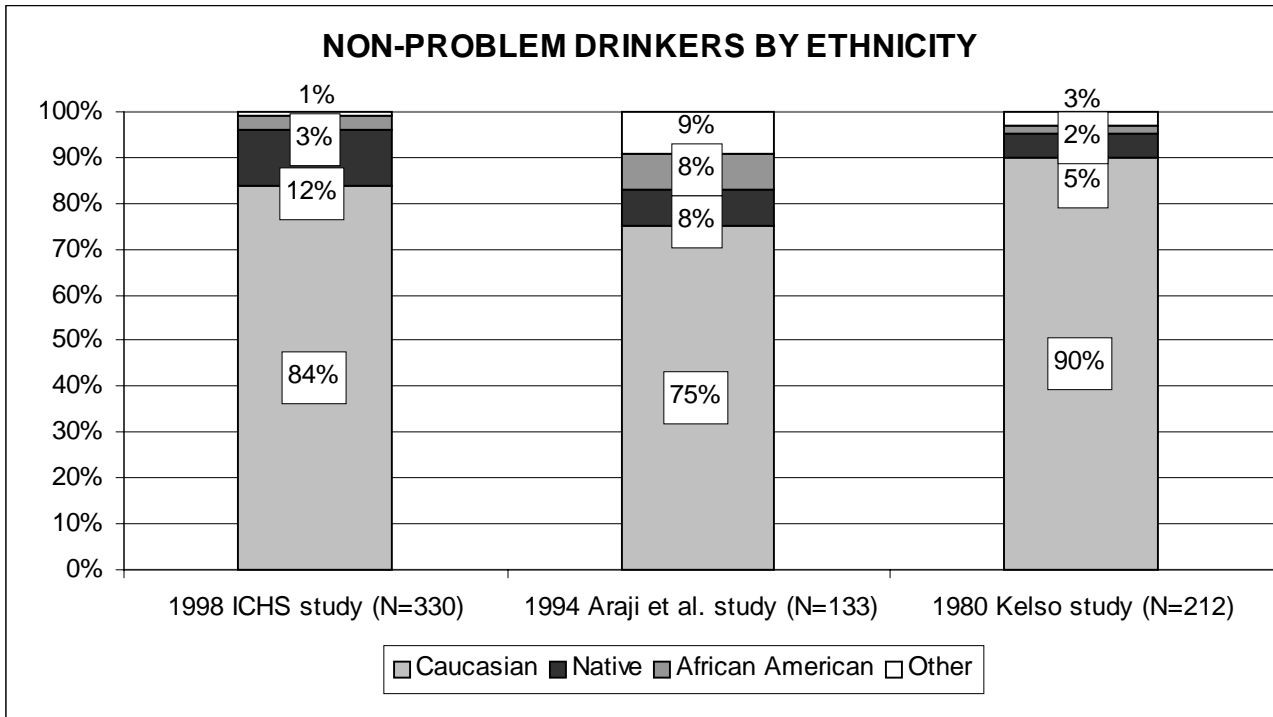
\*\*\* United States Census Data, 1990.

X = Data not available

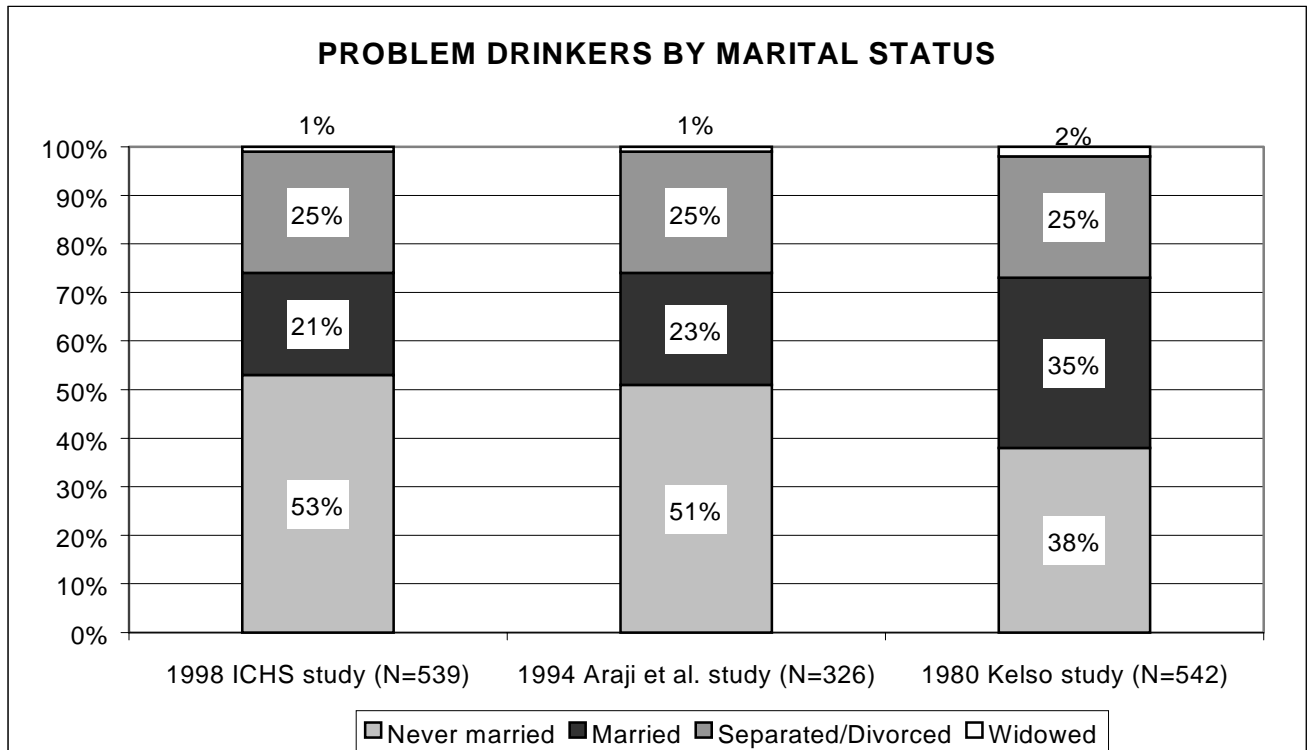
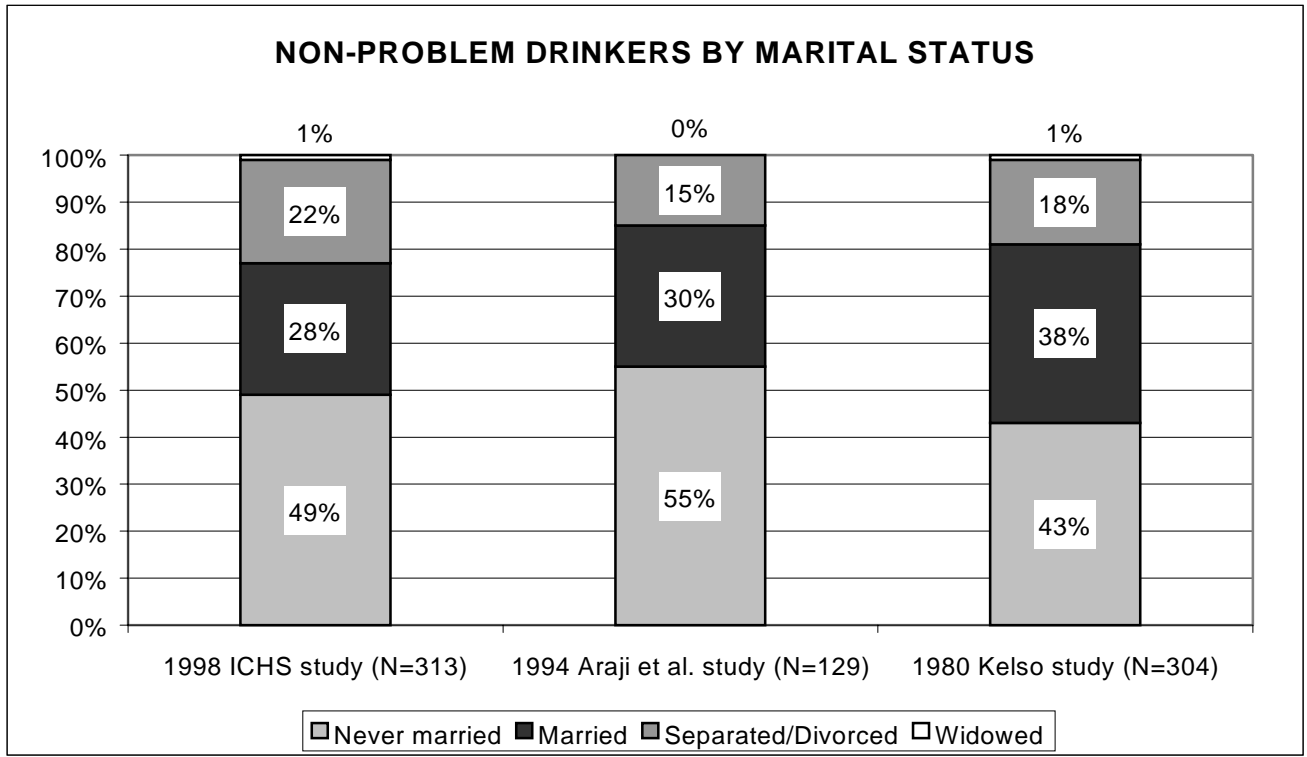
**Figure 4. Prior ASAP Study Distributions of Problem and Non-Problem Drinkers by Gender**



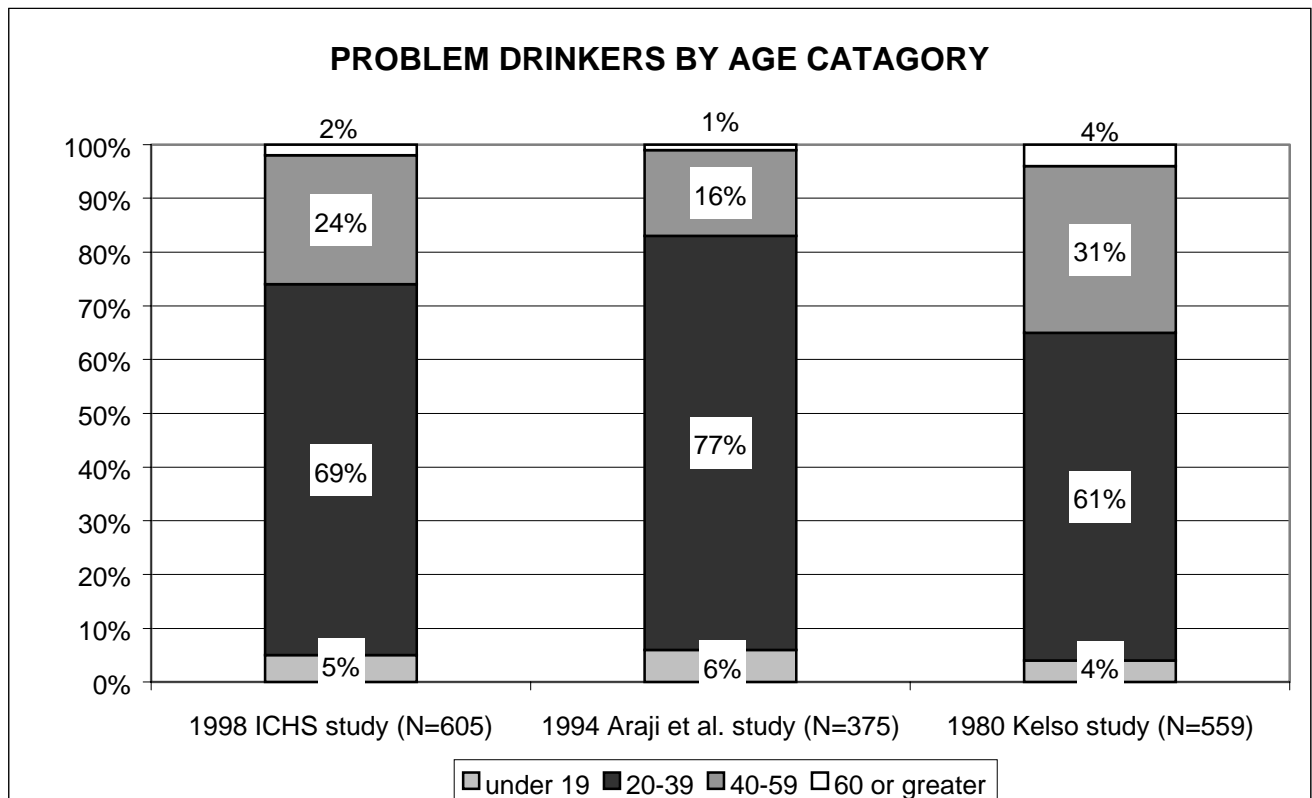
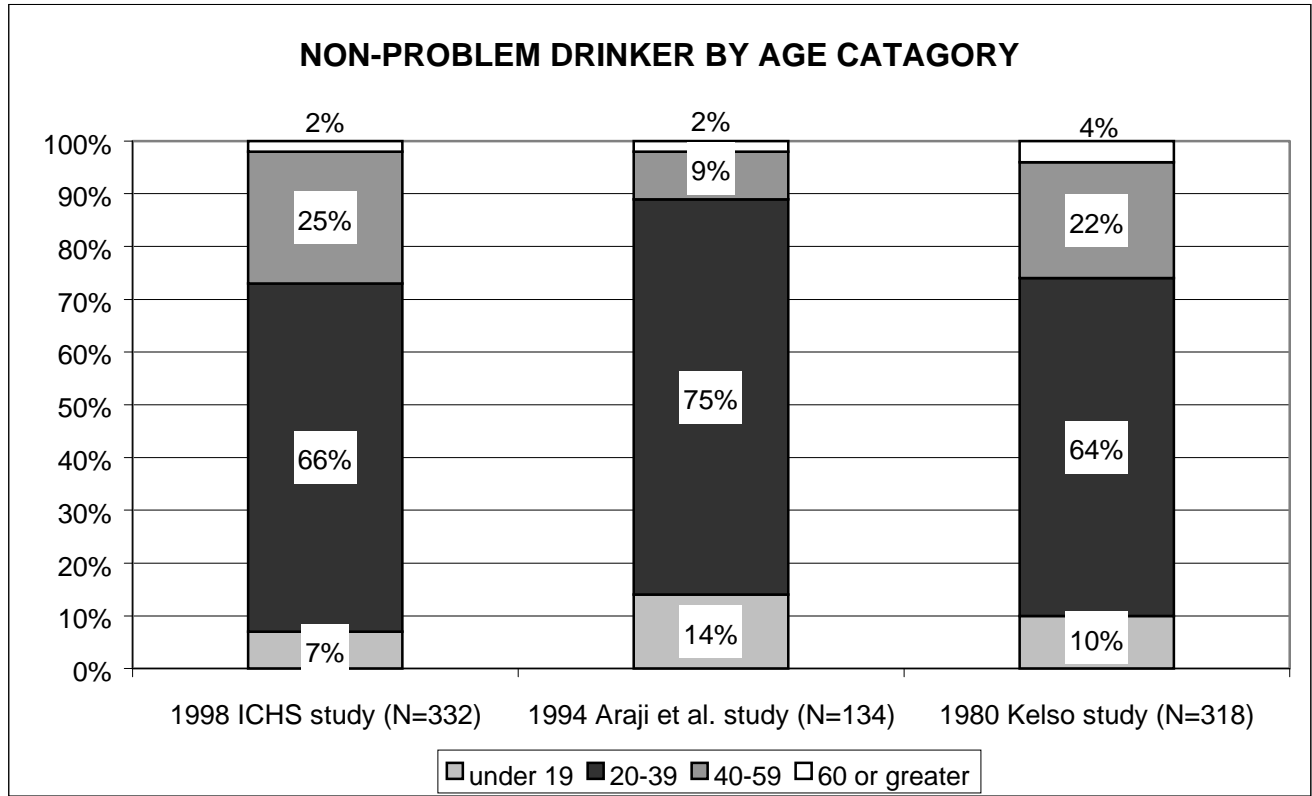
**Figure 5. Prior ASAP Study Distributions of Problem and Non-Problem Drinkers by Ethnicity**



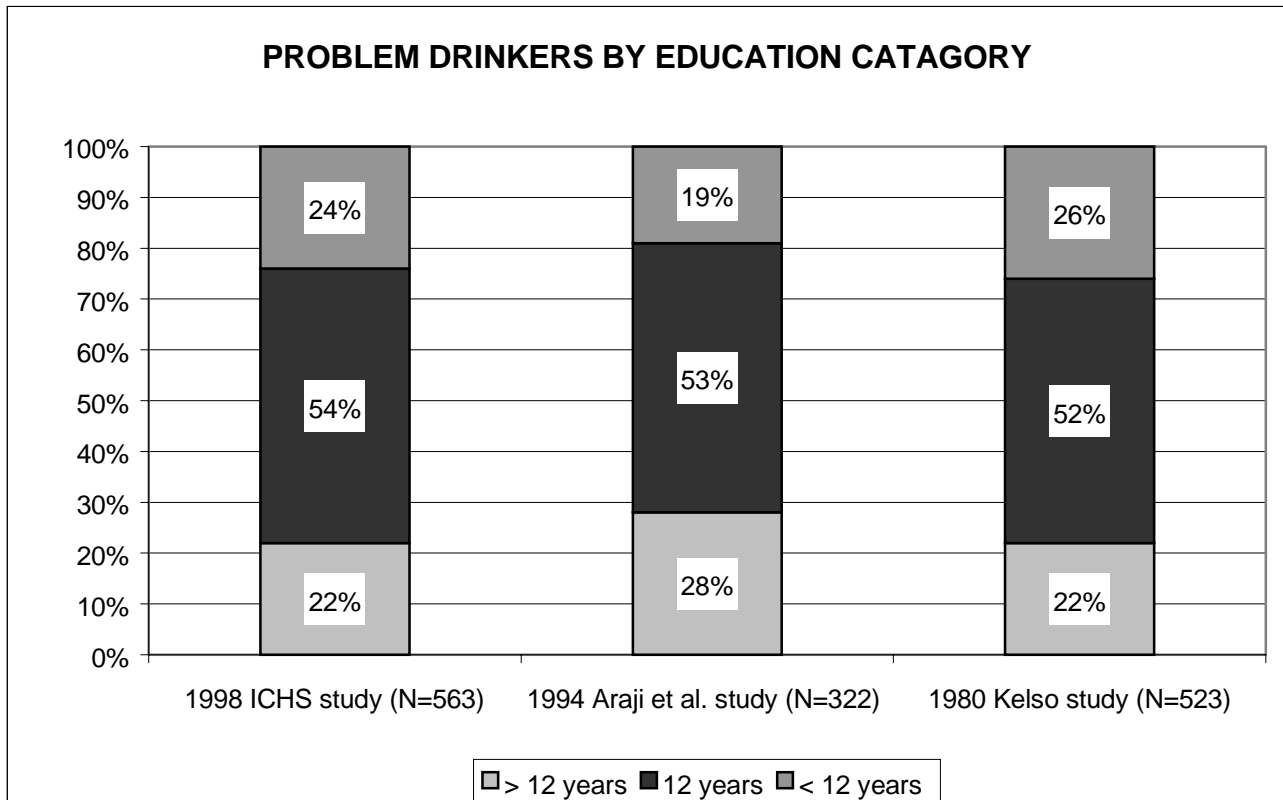
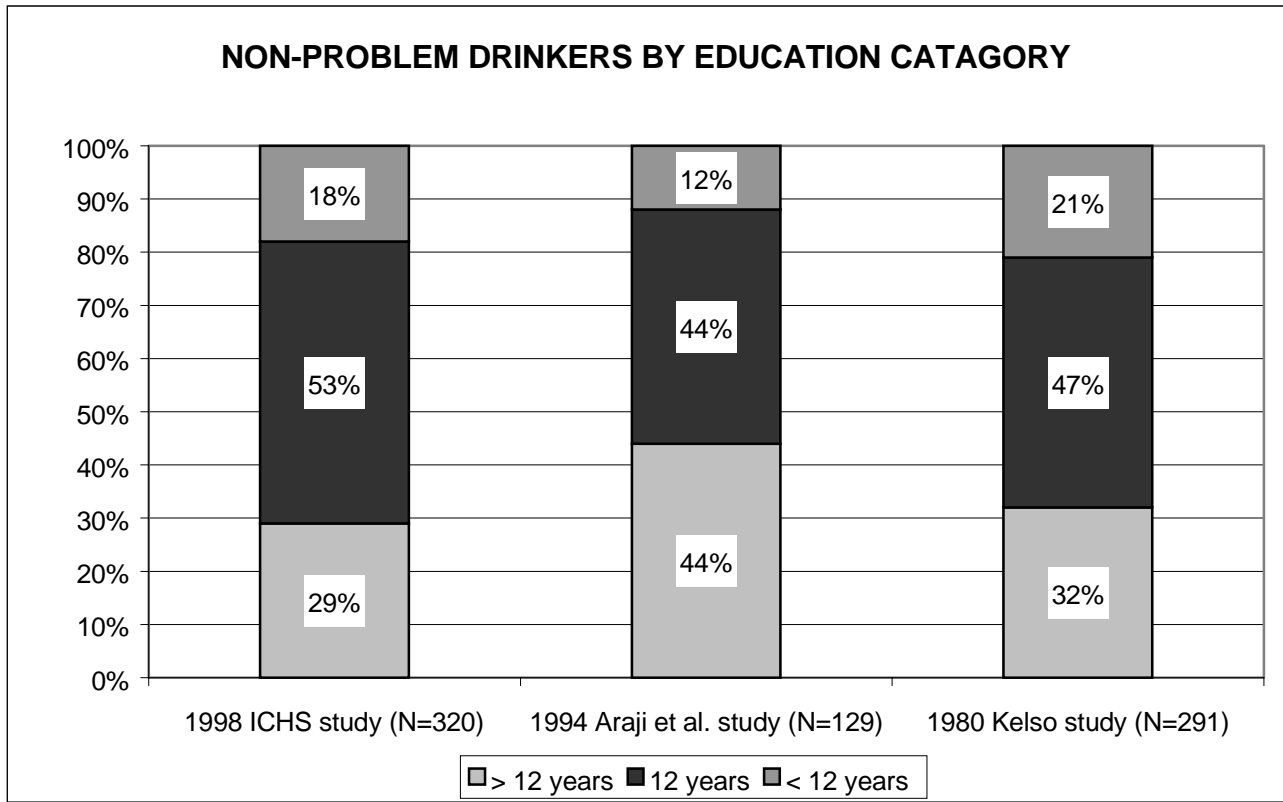
**Figure 6. Prior ASAP Study Distributions of Problem and Non-Problem Drinkers by Marital Status**



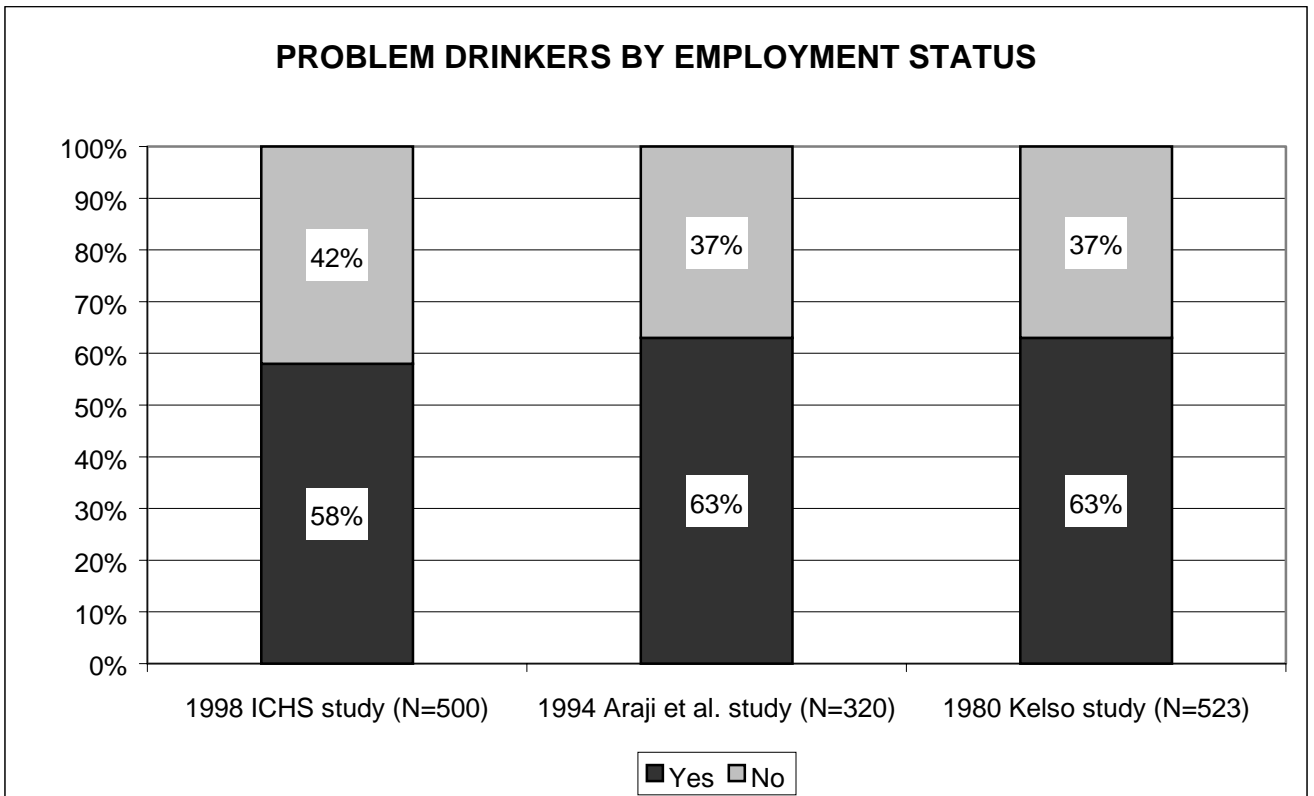
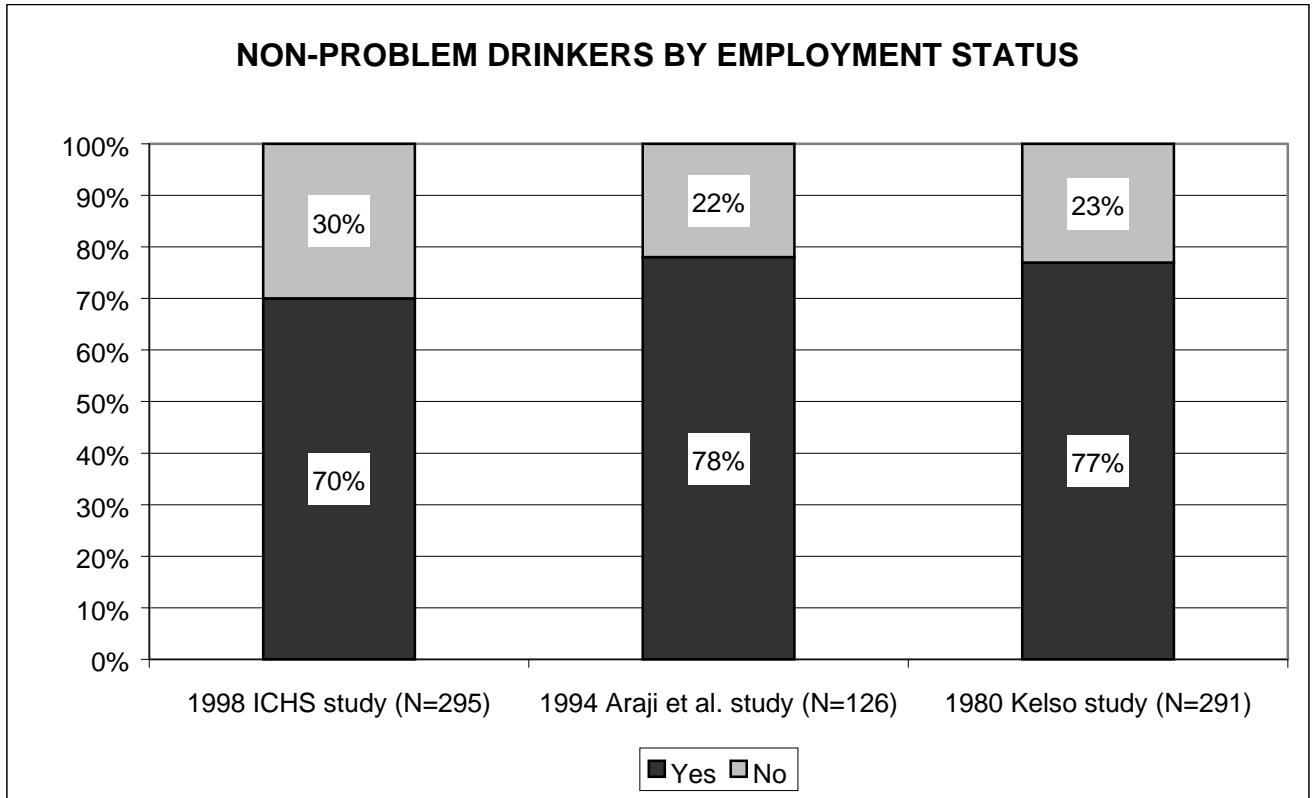
**Figure 7. Prior ASAP Study Distributions of Problem and Non-Problem Drinkers by Age Category**



**Figure 8. Prior ASAP Study Distributions of Problem and Non-Problem Drinkers by Education Category**



**Figure 9. Prior ASAP Study Distributions of Problem and Non-Problem Drinkers by Employment Status**



## Demographic Characteristics of Clients Included in the ICHS/ASAP Study

This section presents descriptive information regarding the demographic characteristics of clients in the ASAP selected sample. Information is presented for the total ASAP population and then aggregated within the four ASAP sites. There were 1,537 cases recorded in the database. Due to multiple offenses, 1,294 individual clients represented the total case count. Twenty-two cases were eliminated for missing or incorrect date information and not included in the analysis. The summary results for this report are based on 1,517 cases and 1,275 individual clients.

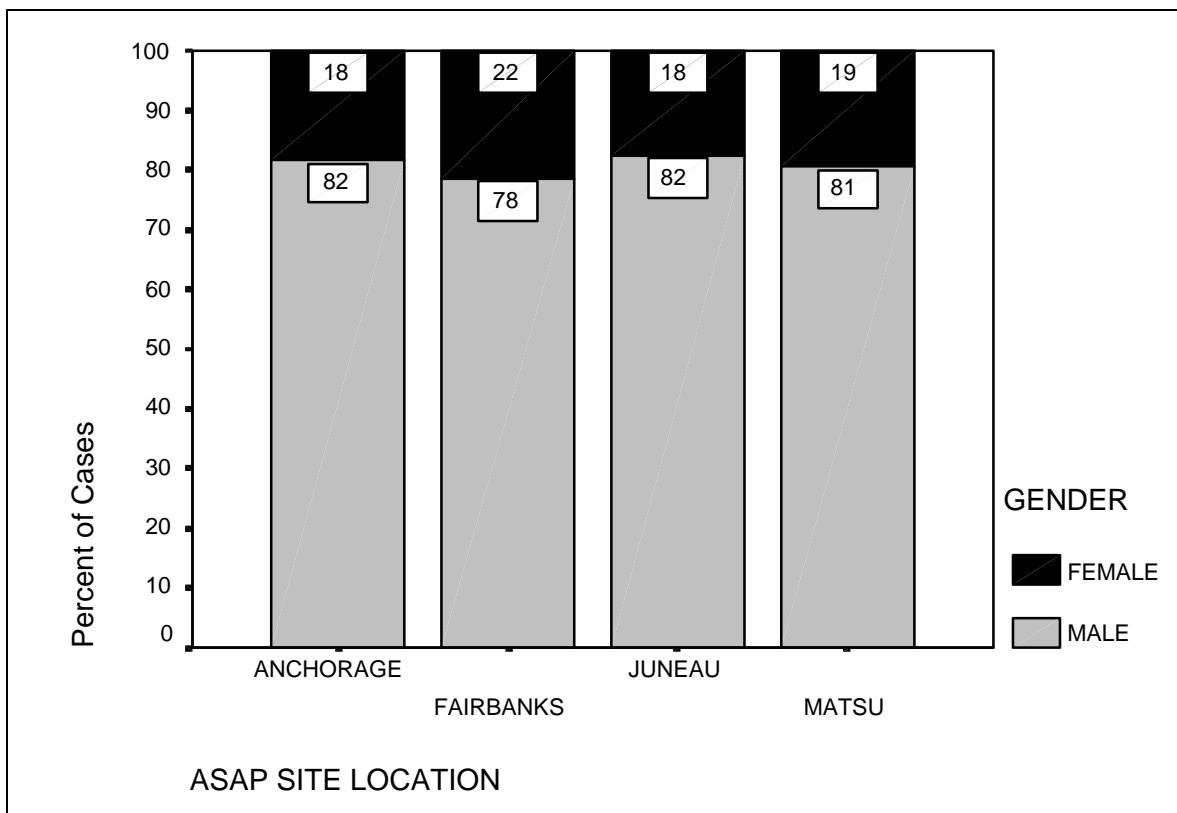
**Gender.** Nineteen percent (19.2%) of ASAP clients within this data are female and eighty-one percent (80.2%) are male. This is shown in Table 3.

**Table 3. Gender Across ASAP Sites**  
**ASAP SITE LOCATION \* GENDER Crosstabulation**

			GENDER		Total
			MALE	FEMALE	
ASAP SITE LOCATION	ANCHORAGE	Count	346	78	424
		% within ASAP SITE LOCATION	81.6%	18.4%	100.0%
		% within GENDER	33.6%	31.8%	33.3%
		% of Total	27.1%	6.1%	33.3%
	FAIRBANKS	Count	237	65	302
		% within ASAP SITE LOCATION	78.5%	21.5%	100.0%
		% within GENDER	23.0%	26.5%	23.7%
		% of Total	18.6%	5.1%	23.7%
	JUNEAU	Count	224	48	272
		% within ASAP SITE LOCATION	82.4%	17.6%	100.0%
		% within GENDER	21.7%	19.6%	21.3%
		% of Total	17.6%	3.8%	21.3%
MATSU	Count	223	54	277	
	% within ASAP SITE LOCATION	80.5%	19.5%	100.0%	
	% within GENDER	21.7%	22.0%	21.7%	
	% of Total	17.5%	4.2%	21.7%	
Total	Count	1030	245	1275	
	% within ASAP SITE LOCATION	80.8%	19.2%	100.0%	
	% within GENDER	100.0%	100.0%	100.0%	
	% of Total	80.8%	19.2%	100.0%	

The four ASAP sites had approximately the same gender distribution. This is shown in Figure 10. The proportion of females was greatest in the Fairbanks program and lowest in the Juneau program. The proportional differences between programs were not significant (Chi-Square=1.66, df=30  $p \geq .05$ ).

**Figure 10. Gender Distributions Across ASAP Sites**



**Age, Income and Education.** Average age, education and income levels for the four ASAP sites are listed in Table 4. The average ASAP client was 33.4 years old, had 11.3 years of education, and had an annual income of \$15,677.5. A review of the standard deviations indicates a wide range of client incomes both within the total sample and across sites. It should be noted that thirty percent of the income values are missing from the data set.

Age, education, and income differences between the four ASAP sites were evaluated. Age and education were analyzed using multivariate (multiple variable) General Linear Modeling (GLM). Multivariate GLM allows for the comparison of multiple variables that may be related (correlated) across several classifications. This analytic technique attempts to do the following: control for chance findings of significant differences, allow for individual comparisons between ASAP sites, and accommodate evaluations of groupings that contain an unequal number of cases. The “overall differences” (or main effects) were evaluated for age and education both across ASAP sites and between sites (for individual effects). Due to the high level of

missing data, the mean differences for income were compared separately utilizing an univariate (single variable) GLM strategy.

**Table 4. Average Age, Education and Income Across ASAP Sites**

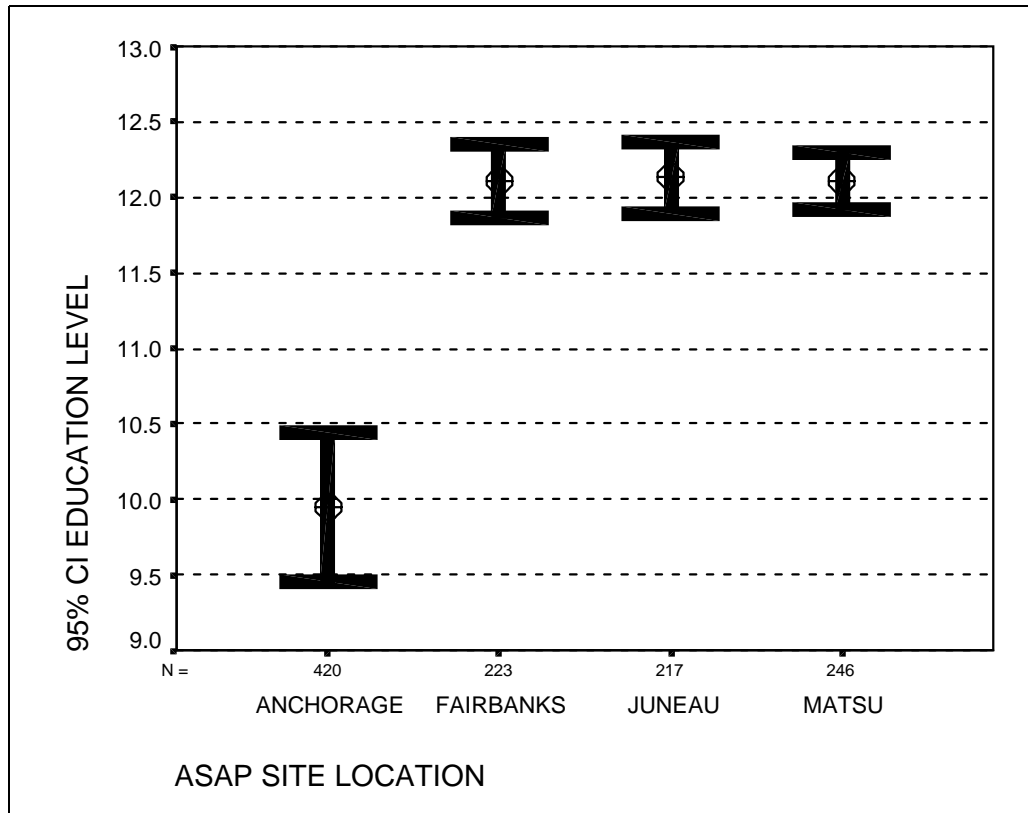
ASAP SITE LOCATION		AGE (years)	EDUCATION LEVEL	INCOME
ANCHORAGE	Mean	33.88	9.94	\$10,115
	Std. Deviation	9.87	5.18	\$13,962
	Std. Error of Mean	.48	.25	\$690
	N	424	420	410
FAIRBANKS	Mean	34.16	12.10	\$19,630
	Std. Deviation	10.30	1.86	\$14,605
	Std. Error of Mean	.59	.12	\$1,095
	N	301	223	178
JUNEAU	Mean	30.83	12.13	\$26,092
	Std. Deviation	9.66	1.73	\$17,425
	Std. Error of Mean	.59	.12	\$1,571
	N	272	217	123
MATSU	Mean	34.31	12.11	\$16,970
	Std. Deviation	10.14	1.52	\$14,041
	Std. Error of Mean	.61	9.67E-02	\$928
	N	277	246	229
Total	Mean	33.39	11.29	\$15,677
	Std. Deviation	10.07	3.62	\$15,605
	Std. Error of Mean	.28	.11	\$509
	N	1274	1106	940

Significant overall differences for age and education were indicated within the data set (Multivariate  $F=36.22$ ,  $df=3,1102$ ,  $p \leq .05$ ), and significant site differences for education within site ( $F=34.12$ ,  $df=3,1102$ ,  $p \leq .05$ ) and age ( $F=6.77$ ,  $df=3,1102$ ,  $p \leq .05$ ) were also determined. Average education and income comparisons between each site were then evaluated, and significant within-site differences were indicated for income (Univariate  $F=45.68$ ,  $df=3,939$ ,  $p \leq .05$ )

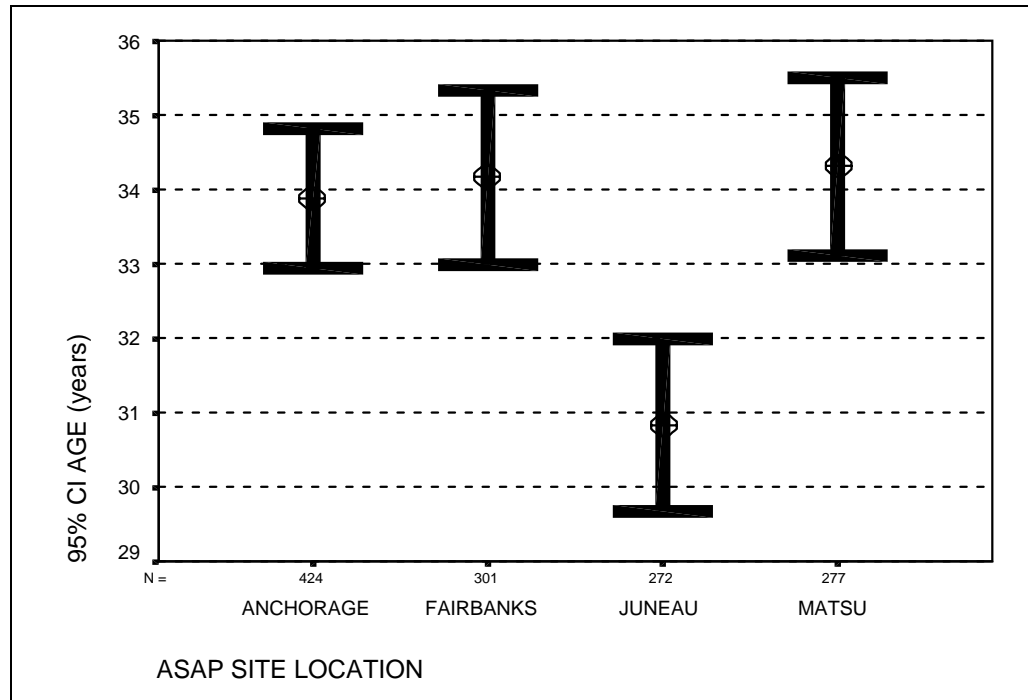
Clients within the data set from Anchorage had significantly lower education levels when compared to Fairbanks, Juneau, and Mat-Su (Figure 11). Fairbanks, Juneau and Mat-Su reported essentially the same education levels.

Clients within the data set from Juneau were significantly younger than their counterparts in Anchorage, Fairbanks, and Mat-Su (Figure 12). Anchorage, Fairbanks, and Mat-Su reported no significant age differences.

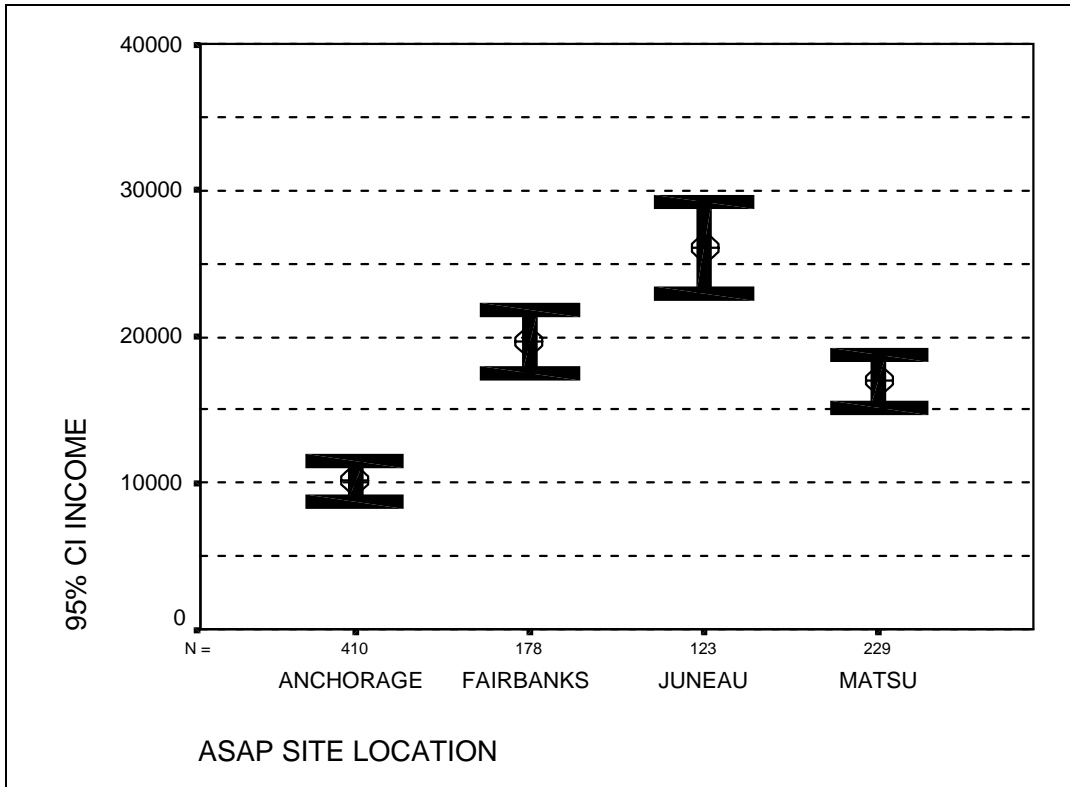
**Figure 11. Average Education Across ASAP Sites**



**Figure 12. Average Age Across ASAP Sites**



**Figure 13. Average Income Across ASAP Sites**



Only 940 out of 1,275 clients had a recorded value for the income variable. Anchorage had a significantly lower average income than the other three sites, while Juneau's average income was significantly higher. As evident in Figure 13, income differences between Mat-Su and Fairbanks were not significant.

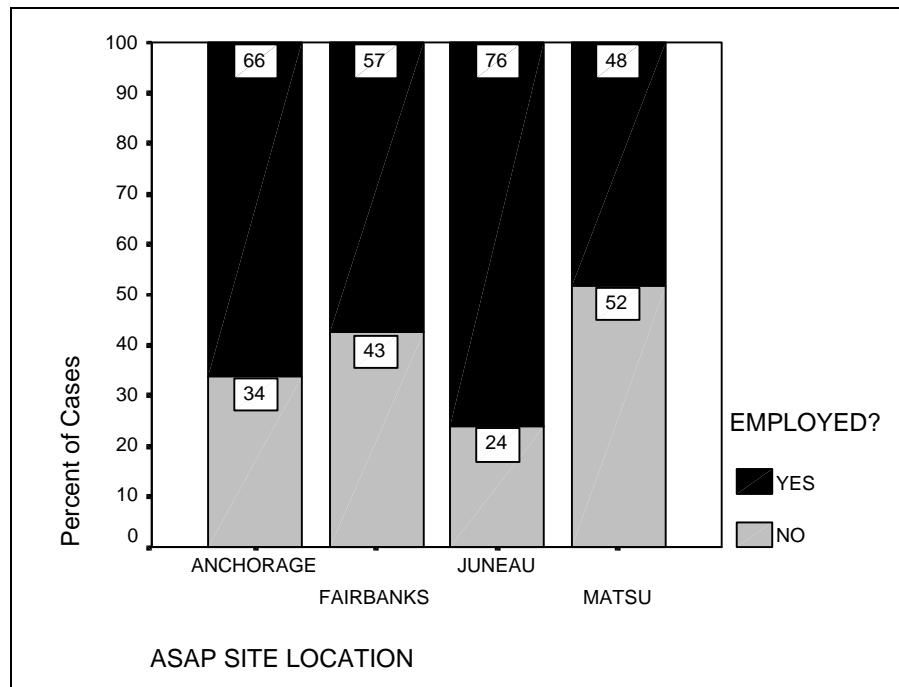
**Employment.** As with some of the other demographic data, information regarding employment within the ASAP data set contained a large number of missing values. Approximately twenty-five percent (24.9%) of the reviewed ASAP records did not contain employment status values. This may reduce the reliability of this field. Table 5 presents the employment status data for each ASAP site.

Due to the extent of the missing employment data, it was decided not to test for proportional differences between the ASAP sites. However, a visual comparison (see Figure 14) suggests a higher rate of employment in Juneau and a higher rate of unemployment in Mat-Su. Over half (52%) of all clients in the Mat-Su ASAP program were unemployed, compared with less than twenty-four percent (24%) in the Juneau program. The employment status and resulting income potential of ASAP clients may impact the level of defense available to clients when their cases are addressed in court. A higher income may allow for a stronger defense approach that in turn could lead to lighter sentencing. Income may also have some bearing on referral patterns to public pay vs. private alcohol treatment programs.

**Table 5. Employment Status Across ASAP Sites**

			EMPLOYED?		Total
			NO	YES	
ASAP SITE LOCATION	ANCHORAGE	Count	110	214	324
		% within ASAP SITE LOCATION	34.0%	66.0%	100.0%
		% within EMPLOYED?	29.8%	36.4%	33.9%
		% of Total	11.5%	22.4%	33.9%
	FAIRBANKS	Count	94	127	221
		% within ASAP SITE LOCATION	42.5%	57.5%	100.0%
		% within EMPLOYED?	25.5%	21.6%	23.1%
		% of Total	9.8%	13.3%	23.1%
	JUNEAU	Count	42	133	175
		% within ASAP SITE LOCATION	24.0%	76.0%	100.0%
		% within EMPLOYED?	11.4%	22.6%	18.3%
		% of Total	4.4%	13.9%	18.3%
MATSU	Count	123	114	237	
	% within ASAP SITE LOCATION	51.9%	48.1%	100.0%	
	% within EMPLOYED?	33.3%	19.4%	24.8%	
	% of Total	12.9%	11.9%	24.8%	
Total	Count	369	588	957	
	% within ASAP SITE LOCATION	38.6%	61.4%	100.0%	
	% within EMPLOYED?	100.0%	100.0%	100.0%	
	% of Total	38.6%	61.4%	100.0%	

**Figure 14. Employment Status Across ASAP Sites**



**Ethnicity.** ASAP clients identified in this study were from four programs located in largely urban areas. The majority of clients were Caucasian. In total numbers, seventy percent (70.3%) were Caucasian, twenty-five percent (24.5%) were Alaska Native, and the remaining five percent were African Americans (4.2%) and other ethnic groups (1.0%). This data is shown in Table 6.

**Table 6. Ethnicity Across ASAP Sites**

			ETHNICITY				Total
			ALASKA NATIVE	CAUCASIAN	AFRICAN AMERICAN	OTHER	
ASAP SITE LOCATION	ANCHORAGE	Count	113	278	28	4	423
		% within ASAP SITE LOCATION	26.7%	65.7%	6.6%	.9%	100.0%
		% within ETHNICITY	36.2%	31.1%	52.8%	30.8%	33.3%
		% of Total	8.9%	21.9%	2.2%	.3%	33.3%
	FAIRBANKS	Count	77	208	11	5	301
		% within ASAP SITE LOCATION	25.6%	69.1%	3.7%	1.7%	100.0%
		% within ETHNICITY	24.7%	23.3%	20.8%	38.5%	23.7%
		% of Total	6.1%	16.4%	.9%	.4%	23.7%
	JUNEAU	Count	94	164	10	3	271
		% within ASAP SITE LOCATION	34.7%	60.5%	3.7%	1.1%	100.0%
		% within ETHNICITY	30.1%	18.3%	18.9%	23.1%	21.3%
		% of Total	7.4%	12.9%	.8%	.2%	21.3%
MATSU	Count	28	244	4	1	277	
	% within ASAP SITE LOCATION	10.1%	88.1%	1.4%	.4%	100.0%	
	% within ETHNICITY	9.0%	27.3%	7.5%	7.7%	21.8%	
	% of Total	2.2%	19.2%	.3%	.1%	21.8%	
Total	Count	312	894	53	13	1272	
	% within ASAP SITE LOCATION	24.5%	70.3%	4.2%	1.0%	100.0%	
	% within ETHNICITY	100.0%	100.0%	100.0%	100.0%	100.0%	
	% of Total	24.5%	70.3%	4.2%	1.0%	100.0%	

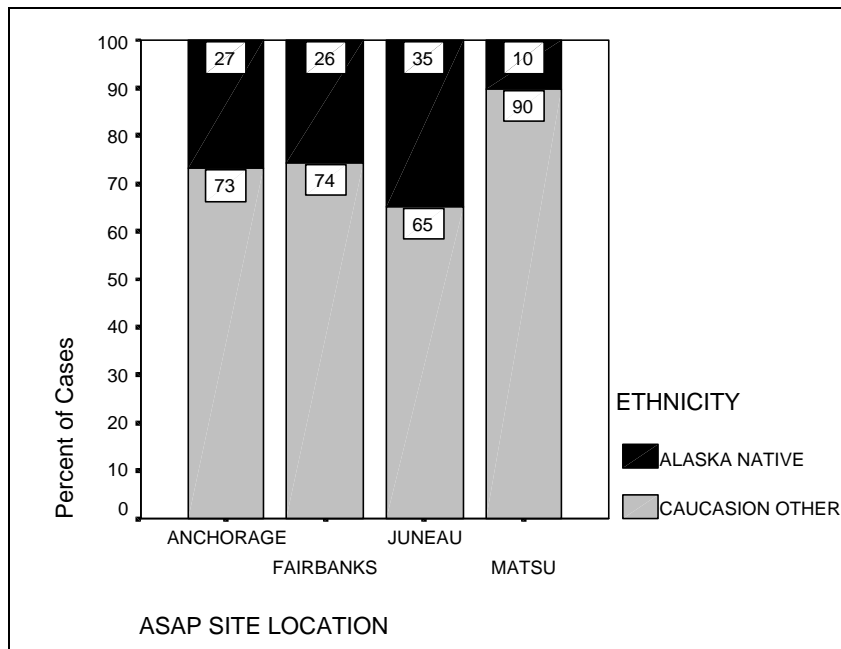
Due to the small number of clients recorded as African Americans, Other or Unknown, the ethnicity classification was modified to represent Caucasian/Other and Alaska Native. The Caucasian, African American, Other and Unknown categories were combined while the Alaska Native classification remained intact. This ethnicity classification was used for all subsequent analyses. The Alaska Native and Caucasian/Other distributions are represented in Table 7.

**Table 7. Reclassified Ethnicity Distributions Across ASAP Sites**

			ETHNICITY		Total
			CAUCASIAN/ OTHER	ALASKA NATIVE	
ASAP SITE LOCATION	ANCHORAGE	Count	310	113	423
		% within ASAP SITE LOCATION	73.3%	26.7%	100.0%
		% within ETHNICITY	32.3%	36.2%	33.3%
		% of Total	24.4%	8.9%	33.3%
	FAIRBANKS	Count	224	77	301
		% within ASAP SITE LOCATION	74.4%	25.6%	100.0%
		% within ETHNICITY	23.3%	24.7%	23.7%
		% of Total	17.6%	6.1%	23.7%
	JUNEAU	Count	177	94	271
		% within ASAP SITE LOCATION	65.3%	34.7%	100.0%
		% within ETHNICITY	18.4%	30.1%	21.3%
		% of Total	13.9%	7.4%	21.3%
	MATSU	Count	249	28	277
		% within ASAP SITE LOCATION	89.9%	10.1%	100.0%
		% within ETHNICITY	25.9%	9.0%	21.8%
		% of Total	19.6%	2.2%	21.8%
Total	Count	960	312	1272	
	% within ASAP SITE LOCATION	75.5%	24.5%	100.0%	
	% within ETHNICITY	100.0%	100.0%	100.0%	
	% of Total	75.5%	24.5%	100.0%	

Within the data set, there were significant across site differences in the proportions of Alaska Native clients (Chi-Square=47.49 df=3,  $P. \leq .05$ ). The Mat-Su program had the smallest proportion Alaska Native clients (10%), while Juneau had the largest proportion of Alaska Natives (35%). This is shown in Figure 15.

**Figure 15. Alaska Native Distributions Across ASAP Sites**



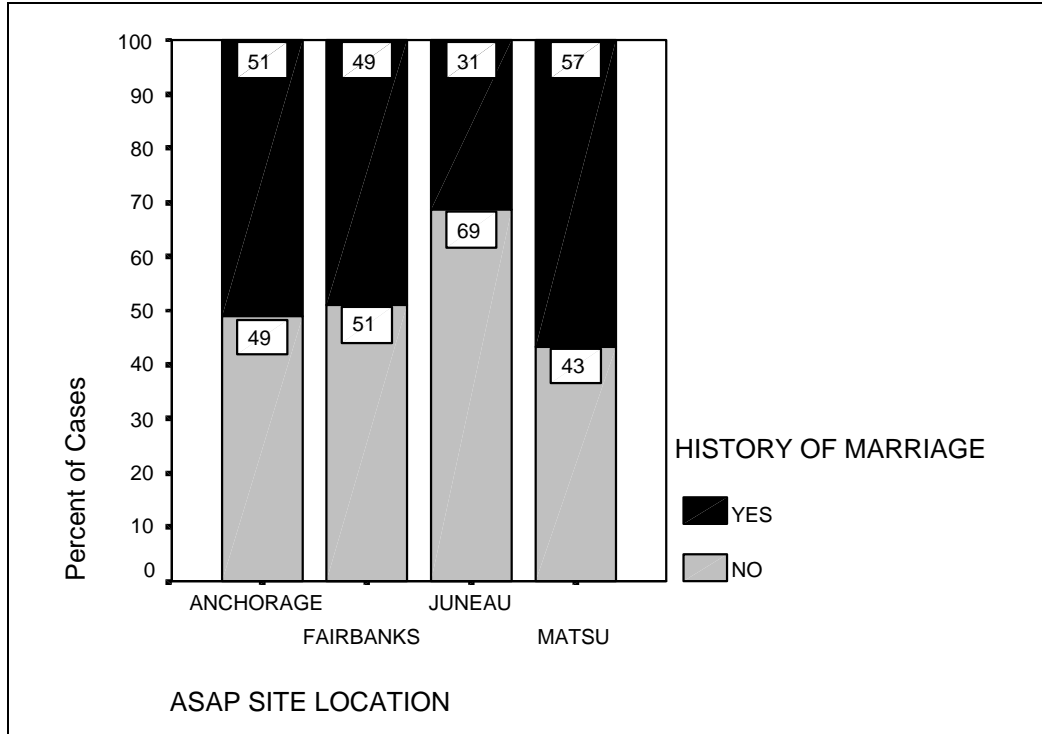
**Marital Status.** Nineteen percent (19.1%) of the data set did not contain marital status information. The classification values utilized for this variable (“Widowed,” “Divorced,” “Separated,” “Married,” “Ever Married”) could also lead to multiple recordings of individual cases within the marital status field. Therefore, the variable was collapsed into an indicator of marriage history (Ever Married = Yes, Never Married = No). Utilizing this marriage history variable, the results indicate that over half (53.2%) of ASAP clients were never married. The remaining group of clients (46.8%) indicated a history of marriage. This information is shown in Table 8.

There were significant proportional differences in the levels of reported marital history between the four ASAP sites (Chi-square 32.98, df=3 p.≤ .05). The Juneau data set had the smallest proportion (31.4%) of clients with a history of marriage. The highest proportion (56.9%) of ASAP clients reporting a history of marriage were from Mat-Su. (Figure 16). History of Marriage is reported here but not utilized for any subsequent analysis.

**Table 8. History of Marriage Across ASAP Sites**

			HISTORY OF MARRIAGE		Total
			NO	YES	
ASAP SITE LOCATION	ANCHORAGE	Count	166	174	340
		% within ASAP SITE LOCATION	48.8%	51.2%	100.0%
		% within HISTORY OF MARRIAGE	30.9%	35.4%	33.0%
		% of Total	16.1%	16.9%	33.0%
	FAIRBANKS	Count	115	110	225
		% within ASAP SITE LOCATION	51.1%	48.9%	100.0%
		% within HISTORY OF MARRIAGE	21.4%	22.4%	21.9%
		% of Total	11.2%	10.7%	21.9%
	JUNEAU	Count	151	69	220
		% within ASAP SITE LOCATION	68.6%	31.4%	100.0%
		% within HISTORY OF MARRIAGE	28.1%	14.1%	21.4%
		% of Total	14.7%	6.7%	21.4%
	MATSU	Count	106	138	244
		% within ASAP SITE LOCATION	43.4%	56.6%	100.0%
		% within HISTORY OF MARRIAGE	19.7%	28.1%	23.7%
		% of Total	10.3%	13.4%	23.7%
Total	Count	538	491	1029	
	% within ASAP SITE LOCATION	52.3%	47.7%	100.0%	
	% within HISTORY OF MARRIAGE	100.0%	100.0%	100.0%	
	% of Total	52.3%	47.7%	100.0%	

**Figure 16. History of Marriage Distributions Across ASAP Sites**



### The Extent of Alcohol Abuse

The Alcohol Safety Action Program focuses on individual clients who commit misdemeanor offenses that are related to substance abuse. This strongly suggests that indicators assessing the extent of substance abuse must be aggressively collected and recorded. Of the 1,275 clients included in the data set, blood alcohol content (BAC) measures were available for 801 or fifty-three percent (52.9%) of the total available sample. It must be noted that suspects have the option to refuse a BAC test, which in turn results in no BAC value. Also, a large portion of the ASAP population (43%) within the data set were not arrested for a DWI offense and therefore do not have a recorded BAC value. An additional variable for alcohol screening (Mortimer-Filkins screening instrument) was not collected due to the sporadic application of this measure across the sites.

**Blood Alcohol Content (BAC).** The BAC values collected represent eighty-nine percent (89.1%) of the DWI arrests within the sample data set. An inspection of the standard deviation and standard error of the mean (both indicators of variability) indicates consistent BAC measurement across the four sites. In clients for whom BAC was recorded, the average BAC within the data set was .18, with a standard deviation of .05. Table 9 shows the average blood alcohol levels for the total data set and each program.

**Table 9. Average BAC by ASAP Site**

MODIFIED BLOOD ALCOHOL CONTENT

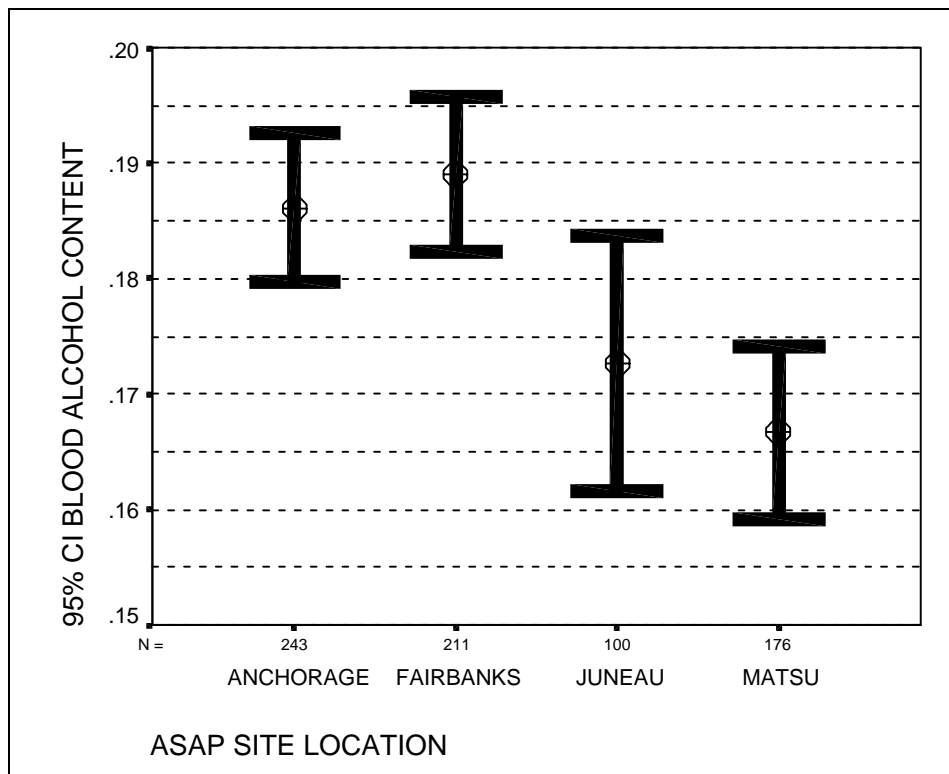
ASAP SITE LOCATION	Mean	Std. Deviation	Std. Error of Mean	N
ANCHORAGE	.18607	.051	.003	243
FAIRBANKS	.18905	.049	.003	211
JUNEAU	.17257	.056	.006	100
MATSU	.16668	.050	.004	176
Total	.18041	.052	.002	730

Figure 17 shows the average BAC measures across sites and the upper and lower bounds. Utilizing univariate GLM, significant ASAP site differences were indicated for client blood alcohol content ( $F=9.19$ ,  $df=3,800$   $p. \leq .05$ ).

Fairbanks had the highest average BAC (.189), while Mat-Su had the lowest (.167). There were no significant mean BAC differences between Anchorage and Fairbanks, but there were significant differences between Anchorage and Fairbanks when compared to Juneau and Mat-Su.

Because of missing values within the data set, the BAC will only be reported and not used in subsequent analyses. Further analyses will utilize an aggregate classification of ASAP clients into problem and non-problem drinkers.

**Figure 17. Average BAC Across ASAP Sites**



**Problem Vs. Non-Problem Drinkers.** The screening protocols for the ASAP program divided ASAP clients into five broad categories. The majority of clients who were assessed according to these categories were classified as those with drinking problems or those without drinking problems. Consequently, the full classification was modified into a problem/non-problem classification for analysis purposes. Despite the emphasis by the ASAP programs on measuring the extent of alcohol abuse among people committing alcohol-related misdemeanors, 26.5% or 388 clients were reported as something other than problem or non-problem drinkers or had missing values. However, due to the importance of this variable, it was included in later analyses.

Including this variable limits the analysis of case records that have documented problem/non-problem values. This reduces the number of cases available for analysis and begins to confine the ability (power) to “infer” meaning, “predict” outcomes, or model solutions for the total population.

Table 10 represents the full drinker classification and the modified drinker classification distributions within the data set, including the missing value distribution and number of clients available for subsequent analysis and model building.

**Table 10. Frequencies of Original and Modified Drinker Classifications**

**DRINKER CLASSIFICATION**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NON-PROBLEM	332	26.0	31.0	31.0
	PENDING	63	4.9	5.9	36.9
	PRESUMPTIVE	19	1.5	1.8	38.7
	PROBLEM	605	47.5	56.5	95.2
	UNKNOWN	51	4.0	4.8	100.0
	Total	1070	83.9	100.0	
Missing	System	205	16.1		
Total		1275	100.0		

**MODIFIED DRINKER CLASSIFICATION**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NON-PROBLEM	332	26.0	35.4	35.4
	PROBLEM	605	47.5	64.6	100.0
	Total	937	73.5	100.0	
Missing	System	338	26.5		
Total		1275	100.0		

The procedure for classifying an ASAP case into a problem or non-problem drinker was derived from an aggregation of the severity of the drinking problem based on the

ASAP classification system. As already noted, drinkers were divided into five categories with the original drinker classification. The modified drinker classification identifies only those clients who were confirmed problem or non-problem drinkers within the original classification system. The available sample for modeling has been restricted by eliminating sixteen percent (16.1%) with missing data, five percent (4.8%) classified as "UNKNOWN," two percent (1.8%) classified as "PRESUMPTIVE", and six percent (5.9%) classified as "PENDING." This resulted in a loss of 338 cases or twenty-seven percent (26.5%) of the total available data. Subsequent analysis of the rate of reoccurrence for alcohol-related offenses will be based on the remaining 937 cases.

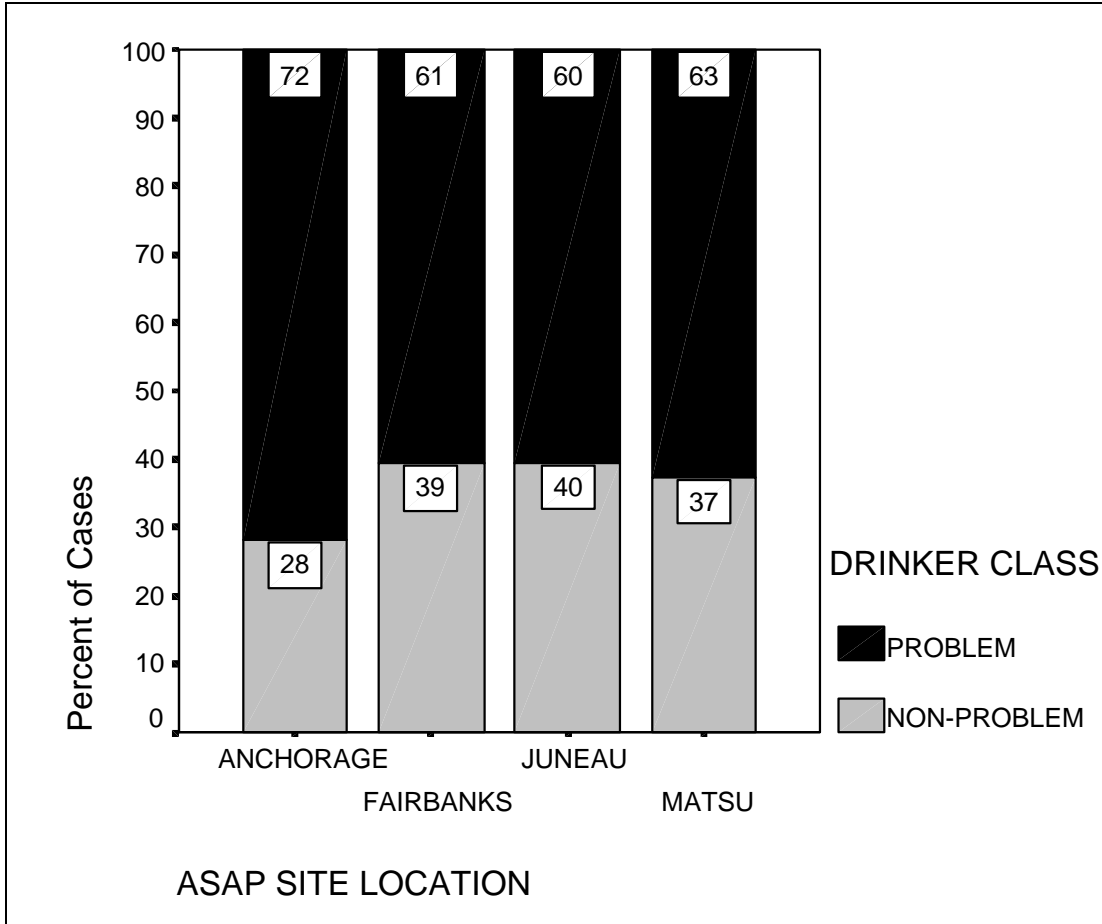
The "Modified Drinker Classification" is presented at the bottom of Table 11. Utilizing the modified problem drinker classification indicates significant proportional differences between ASAP sites (Chi-Square=10.30, df=3,  $p. \leq .05$ ).

**Table 11. Drinker Classification Across ASAP Sites**

			MODIFIED DRINKER CLASSIFICATION		Total
			NON-PROBLEM	PROBLEM	
ASAP SITE LOCATION	ANCHORAGE	Count	85	216	301
		% within ASAP SITE LOCATION	28.2%	71.8%	100.0%
		% within MODIFIED DRINKER CLASSIFICATION	25.6%	35.7%	32.1%
		% of Total	9.1%	23.1%	32.1%
	FAIRBANKS	Count	88	135	223
		% within ASAP SITE LOCATION	39.5%	60.5%	100.0%
		% within MODIFIED DRINKER CLASSIFICATION	26.5%	22.3%	23.8%
		% of Total	9.4%	14.4%	23.8%
	JUNEAU	Count	80	122	202
		% within ASAP SITE LOCATION	39.6%	60.4%	100.0%
		% within MODIFIED DRINKER CLASSIFICATION	24.1%	20.2%	21.6%
		% of Total	8.5%	13.0%	21.6%
MATSU	Count	79	132	211	
	% within ASAP SITE LOCATION	37.4%	62.6%	100.0%	
	% within MODIFIED DRINKER CLASSIFICATION	23.8%	21.8%	22.5%	
	% of Total	8.4%	14.1%	22.5%	
Total	Count	332	605	937	
	% within ASAP SITE LOCATION	35.4%	64.6%	100.0%	
	% within MODIFIED DRINKER CLASSIFICATION	100.0%	100.0%	100.0%	
	% of Total	35.4%	64.6%	100.0%	

Within the data set, sixty-five percent (64.6%) of the clients were classified as problem drinkers. When compared to the other three sites, the Anchorage program reported a lower proportion of cases that had a drinking problem (26%). Figure 18 graphically presents problem and non-problem drinkers across ASAP sites.

**Figure 18. Drinker Classification Across ASAP Sites**



**Characteristics of the Offense**

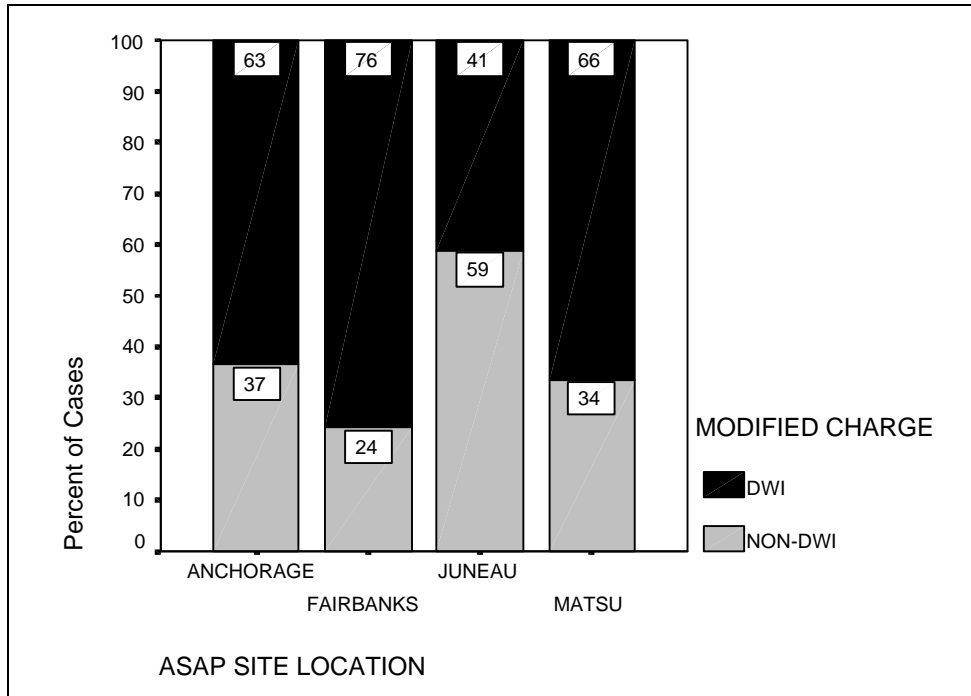
**Charge Classification.** ASAP clients were arrested on a variety of alcohol-related charges. The Fairbanks court system only began referring all alcohol-related charges after 1997. Prior to that, the majority of ASAP referrals were made on DWI cases. For the purposes of this study, clients were classified as either DWI or non-DWI offenders. The charge class variable is modeled after the earlier studies of Araji and Kelso.

Table 12 represents the distribution of offense charges for ASAP clients across all sites. Sixty-two percent (62.3%) of the cases within the data set recorded a DWI charge. There were significant proportional differences indicated between charge classifications across ASAP sites within the data set (Chi-Square=77.43, df=3,  $p \leq .05$ ). The distribution of DWI vs. non-DWI classifications across sites is shown in Figure 19. Juneau indicated the highest proportion of non-DWI charges (58.8%), while Fairbanks represented the highest proportion of DWI charges (75.8%).

**Table 12. Charge Class Across ASAP Sites**

			MODIFIED CHARGE		Total
			NON-DWI	DWI	
ASAP SITE LOCATION	ANCHORAGE	Count	155	269	424
		% within ASAP SITE LOCATION	36.6%	63.4%	100.0%
		% within MODIFIED CHARGE	32.2%	33.9%	33.3%
		% of Total	12.2%	21.1%	33.3%
	FAIRBANKS	Count	73	229	302
		% within ASAP SITE LOCATION	24.2%	75.8%	100.0%
		% within MODIFIED CHARGE	15.2%	28.8%	23.7%
		% of Total	5.7%	18.0%	23.7%
	JUNEAU	Count	160	112	272
		% within ASAP SITE LOCATION	58.8%	41.2%	100.0%
		% within MODIFIED CHARGE	33.3%	14.1%	21.3%
		% of Total	12.5%	8.8%	21.3%
	MATSU	Count	93	184	277
		% within ASAP SITE LOCATION	33.6%	66.4%	100.0%
		% within MODIFIED CHARGE	19.3%	23.2%	21.7%
		% of Total	7.3%	14.4%	21.7%
Total	Count	481	794	1275	
	% within ASAP SITE LOCATION	37.7%	62.3%	100.0%	
	% within MODIFIED CHARGE	100.0%	100.0%	100.0%	
	% of Total	37.7%	62.3%	100.0%	

**Figure 19. Charge Classification Across ASAP Sites**



**Prior Arrests.** Table 13 lists the average number of prior convictions recorded within the data set. Univariate GLM was utilized to assess whether overall differences exist between the average number of priors within location (ASAP site), treatment status (completed/did not complete), re-offense flag (Yes/No), drinker class (problem/non-problem drinker), and offender class (DWI/Non-DWI).

**Table 13. Average Number of Prior Arrests**

By Classification	Average Prior Arrests	Std. Dev.	S.E.	Valid Cases
<b>LOCATION</b>				
Anchorage	3.7	6.1	.3	412
Fairbanks	2.6	4.2	.2	288
Juneau	4.0	5.4	.3	285
Mat-Su	2.9	4.1	.3	267
<b>TREATMENT STATUS</b>				
Completed	2.2	3.7	.1	680
Not Completed	4.7	6.3	.3	552
<b>REOFFENSE</b>				
Yes	4.9	6.0	.3	377
No	2.4	4.6	.2	724
<b>DRINKER CLASS*</b>				
Problem	4.5	5.6	.2	586
Non-Problem	.8	1.8	.1	323
<b>OFFENDER CLASS*</b>				
DWI	2.7	4.2	.2	774
Non-DWI	4.4	6.4	.3	458
<b>OVERALL AVERAGE</b>	<b>3.32</b>	<b>5.2</b>	<b>.2</b>	<b>1232</b>

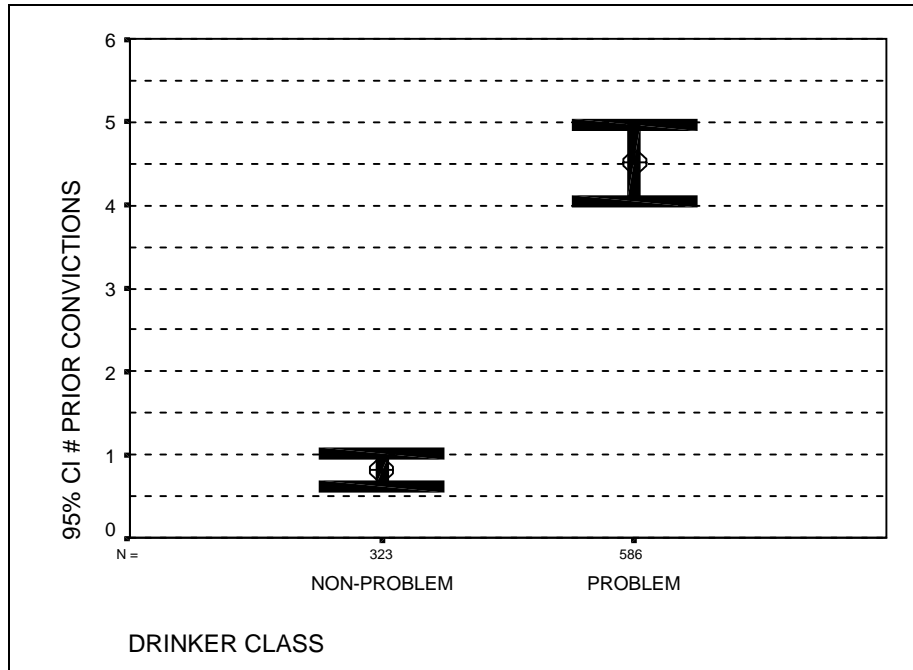
\*(p. ≤ .05)

A review of the standard deviations (Std. Dev.), which represent the amount of dispersion in the number of prior convictions per client, indicates a high degree of variability within the population. Fortunately, due to the large sample size, the estimated variability (Standard Error of the Mean or S.E.) of the average prior conviction rate remains low. An inspection of the S.E. across the classifications (look down the S.E. column) represents relatively consistent dispersion. However, the wide range in the number of prior convictions must be considered when evaluating differences within populations and its effect on predicting future alcohol-related events.

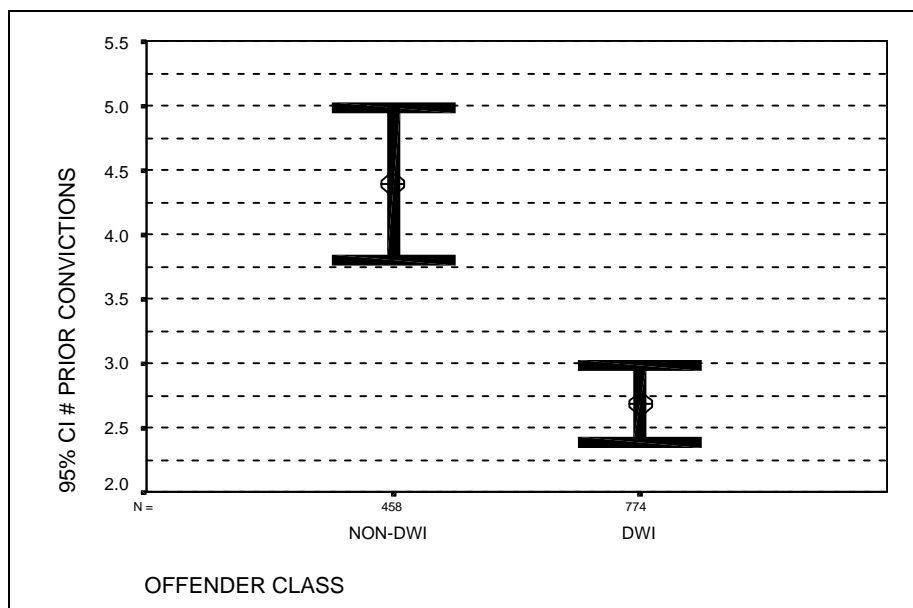
Significant overall differences in the average number of prior arrests across the five classification variables were indicated (F=4.86 df=61,826, p. ≤ .05). Differences within each classification were then determined. Significant differences in average prior convictions were indicated between drinker classes (F=50.20, df=1,826 p. ≤ .05) and offender classes (F=4.13 df=1,826, p. ≤ .05). No significant differences were indicated for average number of prior convictions between ASAP sites, treatment status, or re-offense classifications.

Clients within the data set who were identified as either problem drinkers (Figure 20) or non-DWI offenders (Figure 21) had significantly higher average numbers of prior convictions.

**Figure 20. Average Number of Prior Convictions between Problem and Non-Problem Drinkers**



**Figure 21. Average Number of Prior Convictions between DWI and Non-DWI Offenders**



**Treatment Completion.** Treatment completion occurs when a misdemeanant having been referred to an ASAP program receives a “sign off” from that program indicating successful completion of an assigned treatment. As will be shown later in this report, treatment completion is a major factor in determining whether a person convicted of an alcohol-related offense has a subsequent alcohol-related re-offense.

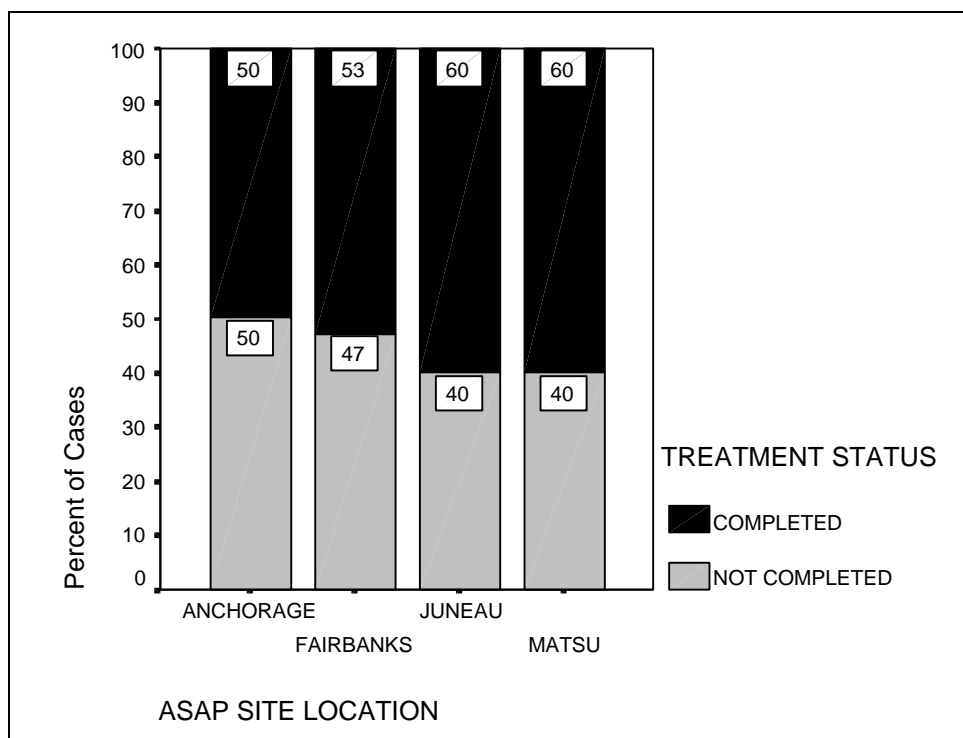
Table 14 presents information regarding the treatment completion rates of clients from the four ASAP sites included in the current study. Statewide, fifty-five percent (54.9%) of clients completed the program. There were significant proportional differences between the completion rates of the four ASAP sites (Chi-square=10.73 df=3,  $p \leq .05$ ).

**Table 14. Treatment Status across ASAP Sites**

			MODIFIED TREATMENT STATUS		Total
			NOT COMPLETED	COMPLETED	
ASAP SITE LOCATION	ANCHORAGE	Count	213	211	424
		% within ASAP SITE LOCATION	50.2%	49.8%	100.0%
		% within MODIFIED TREATMENT STATUS	37.0%	30.2%	33.3%
		% of Total	16.7%	16.5%	33.3%
	FAIRBANKS	Count	143	159	302
		% within ASAP SITE LOCATION	47.4%	52.6%	100.0%
		% within MODIFIED TREATMENT STATUS	24.8%	22.7%	23.7%
		% of Total	11.2%	12.5%	23.7%
	JUNEAU	Count	109	163	272
		% within ASAP SITE LOCATION	40.1%	59.9%	100.0%
		% within MODIFIED TREATMENT STATUS	18.9%	23.3%	21.3%
		% of Total	8.5%	12.8%	21.3%
MATSU	Count	111	166	277	
	% within ASAP SITE LOCATION	40.1%	59.9%	100.0%	
	% within MODIFIED TREATMENT STATUS	19.3%	23.7%	21.7%	
	% of Total	8.7%	13.0%	21.7%	
Total	Count	576	699	1275	
	% within ASAP SITE LOCATION	45.2%	54.8%	100.0%	
	% within MODIFIED TREATMENT STATUS	100.0%	100.0%	100.0%	
	% of Total	45.2%	54.8%	100.0%	

The treatment completion distributions are presented in Figure 22. As can be seen, Juneau and Mat-Su had higher reported rates of completion than Anchorage or Fairbanks. These two sites had the highest completion rates (both at 59.9%), while Anchorage had the lowest (49.8%).

**Figure 22. Charge Classification Across ASAP Sites**



**Re-offence Classification.** In its simplest definition, re-offense is whether an ASAP client convicted of an alcohol-related misdemeanor was convicted of a subsequent alcohol-related offense within a three-year period. Thirteen percent (13%) of all cases contained missing re-offense data. The high degree of missing data is due in large part to the fact that it was not always clear from the Apsin or hard file data that a re-offense was alcohol-related. When this information was unclear, it was considered “missing.” Table 15 shows that sixty-six percent (65.9%) of the clients within the data set who were convicted of an alcohol-related offense did not re-offend within the study period.

There were significant proportional differences in the re-offense rates across the four ASAP sites (Chi-Square=15.01 df=3,  $p \leq .05$ ). These differences are shown in Figure 23. Anchorage (70.4%) and Fairbanks (69.7%) indicate equivalent proportions of clients who did not re-offend within the study period. In contrast, fifty-six percent (56.4%) of the clients from Juneau re-offended within the three years following their original 1994 convictions.

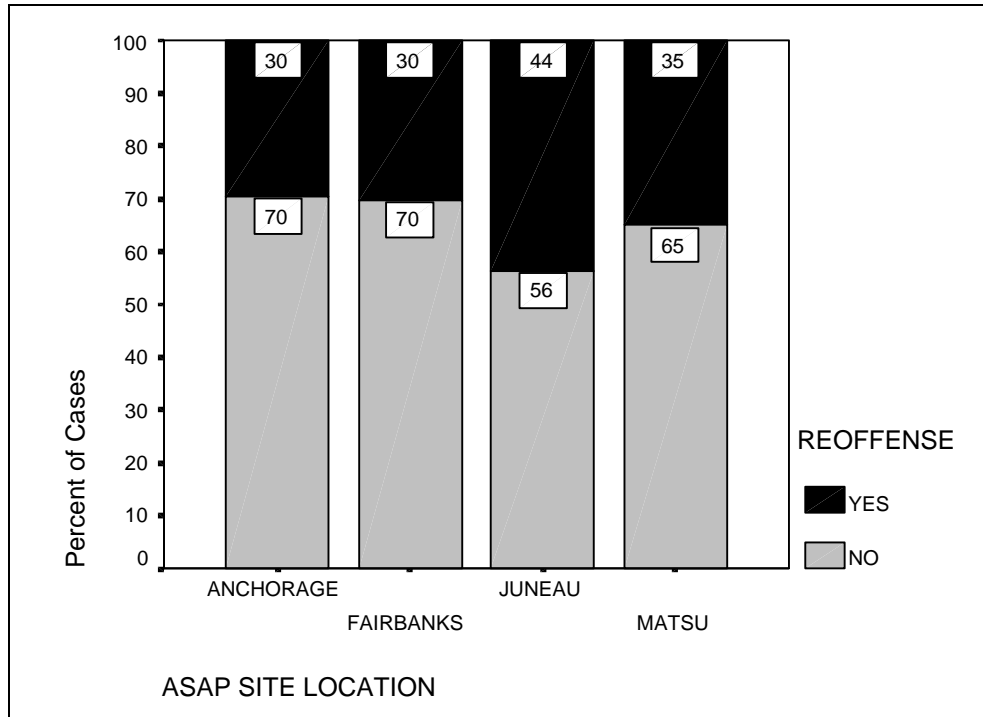
## Characteristics of the ASAP Process

This section presents a basic description of how clients pass through the ASAP system from their original 1994 offense through to any alcohol-related re-offense. The section is ordered chronologically to trace, to the greatest extent possible, the sequence of events shown in the process flow chart described earlier in this report.

**Table 15. Re-offense Across ASAP Sites**

			RE-OFFENSE		Total
			NO	YES	
ASAP SITE LOCATION	ANCHORAGE	Count	271	114	385
		% within ASAP SITE LOCATION	70.4%	29.6%	100.0%
		% within MODIFIED RECIDIVISM	37.2%	30.2%	34.8%
		% of Total	24.5%	10.3%	34.8%
	FAIRBANKS	Count	159	69	228
		% within ASAP SITE LOCATION	69.7%	30.3%	100.0%
		% within MODIFIED RECIDIVISM	21.8%	18.3%	20.6%
		% of Total	14.4%	6.2%	20.6%
	JUNEAU	Count	141	109	250
		% within ASAP SITE LOCATION	56.4%	43.6%	100.0%
		% within MODIFIED RECIDIVISM	19.3%	28.9%	22.6%
		% of Total	12.7%	9.9%	22.6%
	MATSU	Count	158	85	243
		% within ASAP SITE LOCATION	65.0%	35.0%	100.0%
		% within MODIFIED RECIDIVISM	21.7%	22.5%	22.0%
		% of Total	14.3%	7.7%	22.0%
Total	Count	729	377	1106	
	% within ASAP SITE LOCATION	65.9%	34.1%	100.0%	
	% within MODIFIED RECIDIVISM	100.0%	100.0%	100.0%	
	% of Total	65.9%	34.1%	100.0%	

**Figure 23. Re-offense Across ASAP Sites**



**Days from Arrest to Conviction and Conviction to ASAP Assignment.** Table 16 presents the average number of days that elapsed from arrest to conviction and from conviction to ASAP assignment for treatment. The average number of days for both variables are aggregated by location (ASAP site), re-offense within three years from 1994 arrest (Yes/No), treatment status (completed/did not complete), drinker class (problem/non-problem), and offender class (DWI/Non-DWI). Average differences for both variables across the listed aggregations were evaluated utilizing multivariate GLM. The main effects for each aggregation and the individual group averages were evaluated.

A review of the standard deviations and standard errors indicate extreme variability in the number of days that passed from offense to conviction and from conviction to ASAP assignment. There appears to be very little control of the number of days that clients wait for conviction or assignment. Significant overall (multivariate) differences of days to conviction and days to assignment were indicated for ASAP Site ( $F=10.16$ ,  $df=3,752$   $p \leq .05$ ), Treatment Status ( $F=2.82$ ,  $df=2,751$   $p \leq .05$ ), and Re-offense ( $F=4.31$ ,  $df=2,751$   $p \leq .05$ ). Individual (univariate) evaluations for the number of days from arrest to conviction and from conviction to assignment were then evaluated between ASAP site, treatment status, and re-offense.

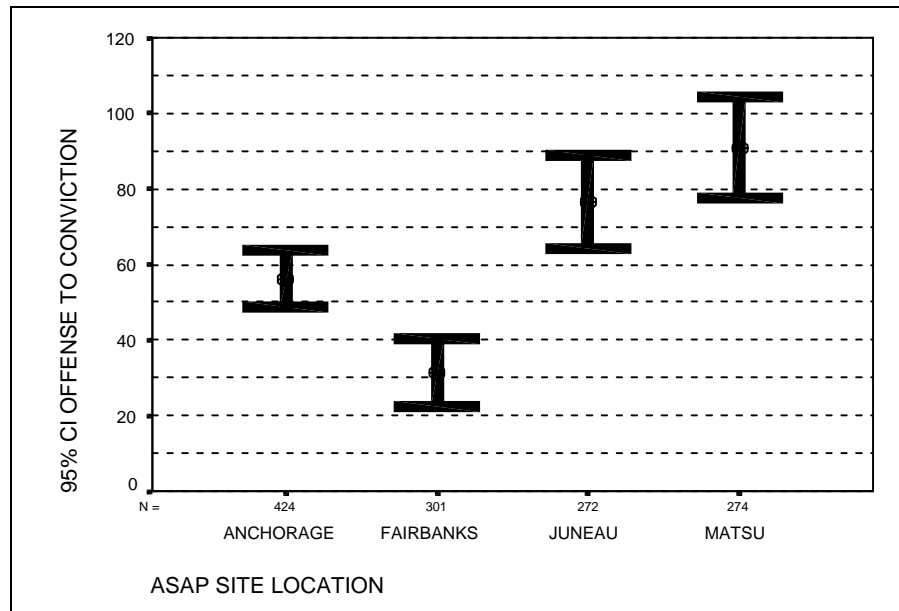
Significant ASAP site differences were indicated for the average number of days between offense and conviction ( $F=11.72$ ,  $df=3/752$ ,  $p \leq .05$ ). Figure 24 graphically represents this average across ASAP sites.

**Table 16. Average Number of Days from Arrests to Conviction and Conviction to ASAP Assignment for Treatment**

Averages By Classification	Offense To Conviction	Std. Dev.	S.E.	Valid Cases	Conviction to Assignment	Std. Dev.	S.E.	Valid Cases
<b>LOCATION*</b>								
Anchorage	56.1	78.5	3.8	424	77.32	209.4	10.7	380
Fairbanks	31.2	79.1	4.6	301	108.3	197.9	12.6	245
Juneau	76.6	103.9	6.3	272	51.8	135.3	8.7	243
Mat-Su	90.9	111.0	6.7	274	118.1	274.6	17.5	245
<b>TREATMENT* STATUS</b>								
Completed	62.3	91.3	3.5	696	49.5	148.3	5.7	681
Not Complete	61.8	98.5	4.1	575	147.6	273.2	13.2	423
<b>REOFFENSE</b>								
Yes	66.9	84.1	4.3	377	135.1	267.4	14.5	338
No	57.6	88.8	3.3	728	60.3	152.3	6.0	649
<b>DRINKER CLASS</b>								
Problem	65.5	82.6	3.4	605	97.2	216.9	8.9	591
Non-Problem	52.8	91.8	5.1	330	44.9	116.6	6.5	326
<b>OFFENDER CLASS</b>								
DWI	55.2	96.1	3.4	793	86.8	217.4	8.2	703
Non-DWI	73.4	90.8	4.2	478	88.9	200.8	9.9	410
<b>TOTAL</b>	<b>62.2</b>	<b>94.6</b>	<b>2.7</b>	<b>1271</b>	<b>87.6</b>	<b>211.4</b>	<b>6.3</b>	<b>1113</b>

\*(p. ≤ .05)

**Figure 24. Average Days from Offense to Conviction Across ASAP Sites**



Between-group differences were significant for the average number of days between conviction and ASAP in the Treatment Status Classification ( $F=4.17$ ,  $df=1/725$ ,  $p. \leq .05$ ) and Re-offense Class ( $F=9.72$   $df=1/752$ ,  $p. \leq .05$ ). Figures 26 and 27 graphically represent the average number of days from conviction to treatment assignment for the treatment status and re-offense classifications.

**Offense to Conviction.** The number of days from the offense to the conviction date represents the Offense to Conviction measure. It is during this time that the responsible adjudication system changes from the police department to the court system. The average time from offense to conviction is 62 days (62.2). The average wait from offense to conviction across ASAP site ranges from a low of thirty-one days (31.2) for Fairbanks to a high of ninety-one days (90.9) for Mat-Su (Figure 24).

**Conviction to Assignment.** After conviction of an alcohol-related misdemeanor, an offender must report to an ASAP office where he or she is triaged for entry into any one or more of a variety of alcohol intervention programs. These can be categorized as alcohol information school, different types of outpatient treatment, residential treatment and other types of treatment. The average number of days from conviction to ASAP treatment assignment was eighty-eight days (87.55). Figure 25 presents the average number of days across treatment status. The average number of days from conviction to assignment for offenders who did not complete treatment was one hundred and forty-eight days (147.56) as opposed to forty-nine days (49.4) for those who did complete treatment.

**Figure 25. Average Days From Conviction to Assignment Across Treatment Classification**

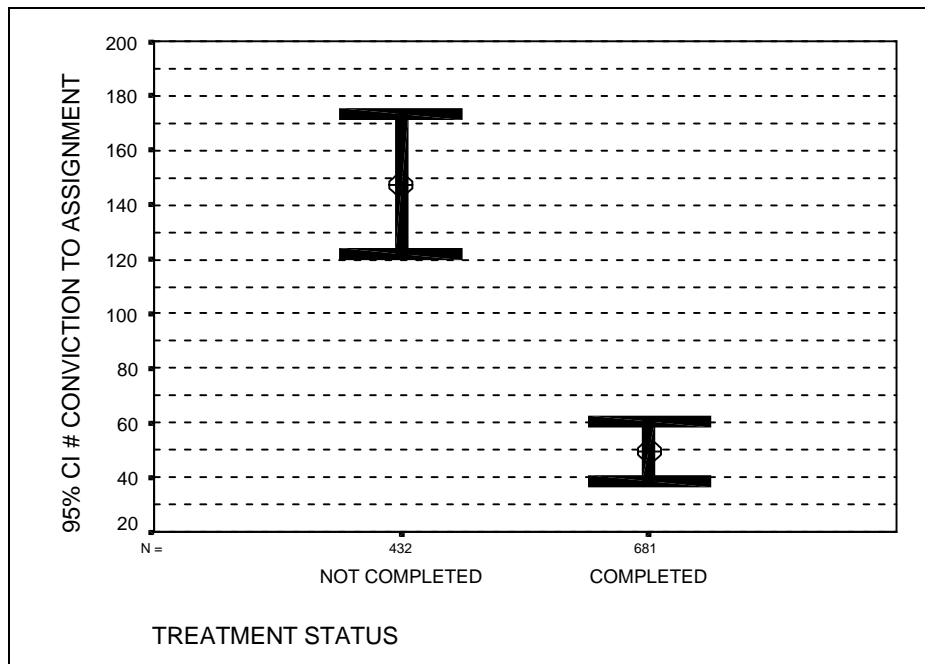
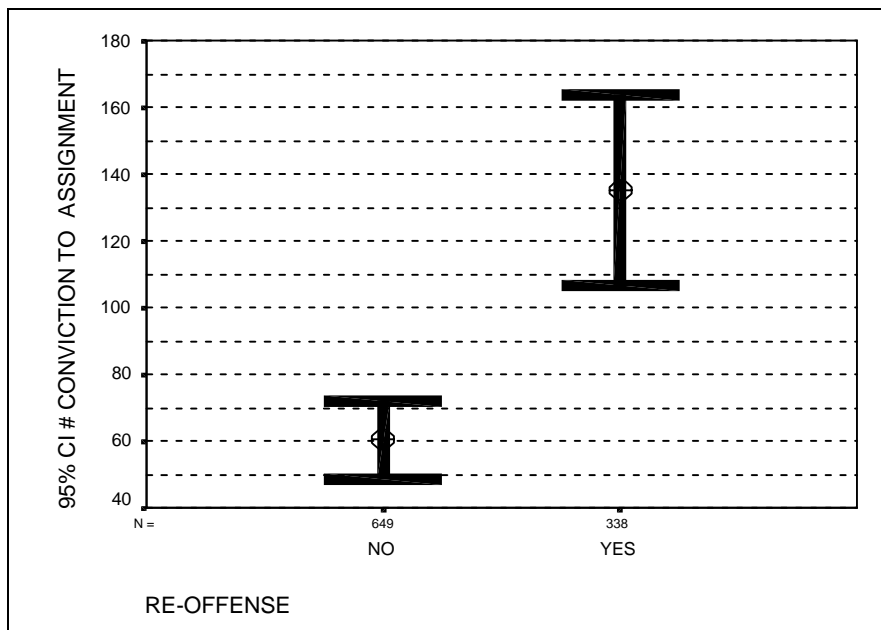


Figure 26 presents the average number of days from conviction to assignment across Re-offense Class. The average number of days from conviction to assignment for cases that did not re-offend was sixty days (60.3), as compared to one hundred and thirty-five days (135.12) for those who did re-offend.

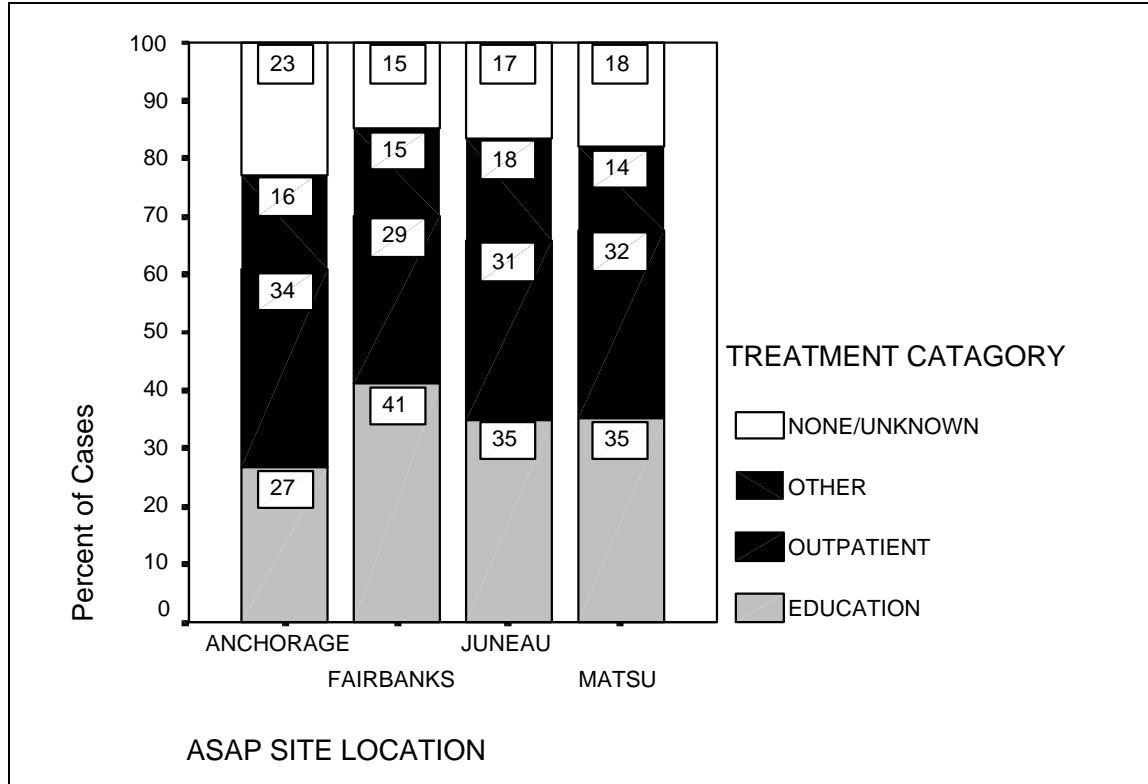
**Figure 26. Average Days From Conviction to ASAP Assignment Across Re-offense Class**



**Assignment Category.** This section describes how the numerous programs to which ASAP clients were assigned following their conviction are combined into a limited number of categories used in subsequent analyses. During the period of this study, ASAP programs referred ASAP clients to approximately 125 different programs around the state. While some of these programs may be duplicates due to errors in coding or correct listing of the agency name, the sheer number of referral agencies makes any analysis extremely problematic. For this reason, ASAP personnel collapsed the assignment agencies into twenty assignment types. This listing of assignment types still contains a level of detail that makes future analyses impossible. Therefore, the assignment types were further aggregated into four assignment categories. A distribution of assignment categories is shown in Figure 27.

**Category development.** The category of education includes the Alcohol Information School, The Victim’s Panel, and a few other scattered types of assignments. The outpatient assignment category is largely composed of intensive outpatient treatment and outpatient treatment. Occasionally, aftercare services were included in the outpatient assignment category. A general assignment category called “other” is composed of some aftercare, but mostly residential treatment, anger control programs, and Alcoholics Anonymous referrals. All other referrals were categorized as none/unknown.

**Figure 27. Treatment Category across ASAP Sites**



### Building and Evaluating a Model of Re-Offense

A major goal of this study is to examine the conviction rate after treatment in various programs and assemble information that can be used to effectively reduce re-offenses. The intent is to utilize analytic techniques that evaluate the impact of several predictor variables that may be associated with the re-offender and non re-offender populations. The study is also interested in understanding the survival rates of the re-offender (time from 1994 offense to first re-offense) across ASAP sites and the predictor variables that may effect or moderate that rate. Three separate analysis techniques were utilized to evaluate recidivism, rate of re-offense over time, and the variables that effect the rate of re-offense. First, an evaluation was conducted of the overall model of recidivism utilizing the total population (Logistic Regression). Second, plots and evaluation of the actual survival rates of re-offenders for the four ASAP sites were completed (Kaplan-Meier Survival Analysis). Third, an evaluation of several predictor variables that effect the survival rate of re-offenders and the construction of an adjusted survival curve was completed (Cox-Regression Analysis).

**Assessing a Model of ASAP Client Re-Offense: Logistic Regression.** This procedure assesses and estimates the effects of several independent (predictor) variables that may predict being or not being a re-offender. This procedure utilizes both offender and re-offender populations to estimate an overall probability that a re-

offense will occur while simultaneously assessing the effects and contributions of several predictor variables. This procedure utilizes all available data from the four ASAP sites to build the model. Values for missing data were developed for the Assignment Category, Employment Status, and Drinker Classification variables. Missing data values were included 1) to determine if missing data influenced (biased) the assessment of the re-offender classifications and 2) to maximize the number of ASAP client data available for assessment. One thousand, one hundred and fifty-four cases were available for analysis. Values representing each predictor variable and its significance of contribution are also presented.

Table 17 lists the variables included in the logistic regression model. The goal was to determine what variables within the data set were significantly associated with identifying ASAP clients who re-offended.

**Table 17. Logistic Regression Model Evaluating the Effects that Contribute to Re-Offender and Non Re-offender Classification of ASAP Cases**  
(N=1154 p.  $\leq$  .05)

<b>Variable</b>	<b>Propensity of becoming a Re-Offender</b>	<b>Significant</b>
Age	Younger clients	YES
Gender	Being male	NO
Ethnicity	Being Alaska native	YES
Employed	Being unemployed	NO
ASAP Location	Being from Juneau	YES
Prior Convictions	The number of prior convictions	YES
Drinker Class	Identified problem drinkers	YES
Charge	Non-DWI clients	YES
Days from Offense To Conviction	Increased elapsed days	YES
Days from Conviction To Assignment	Increased elapsed days	YES
Assignment Category	Education/Outpatient/Other	NO
Treatment Completion	Not completing assigned treatment	YES
Missing Data	May bias the results (ability to identify re-offenders)	
Missing Employment Data (missing cases=236)		NO
Missing Drinker Class Data (missing cases=203)		YES
Missing Treatment Assignment (missing cases=85)		NO

**Plotting and Evaluating the Time it Takes to Re-offend: Kaplan-Meier Survival Analysis.** This procedure was used to examine the “unadjusted” alcohol-related re-offense rate over time distributions (survival curves). The survival curves plot the probability of cases to re-offend after the first recorded alcohol-related offense. The procedure produces individual survival curves for the four ASAP sites, taking into account the majority of cases (censored cases) that did not re-offend and estimating a cumulative survival probability curve based on every case that re-offended. The differences of the survival curves across ASAP sites were then compared. Survival plots by ASAP site of the unadjusted curves are presented. The assessment is specifically designed to evaluate the probability curves of re-offense across site within a specified time. Table 18 lists the average times to re-offense (Mean Survival Time), standard errors, and 95% confidence intervals for the four ASAP sites.

**Table 18. Mean Survival Times (Years) to Re-offense**

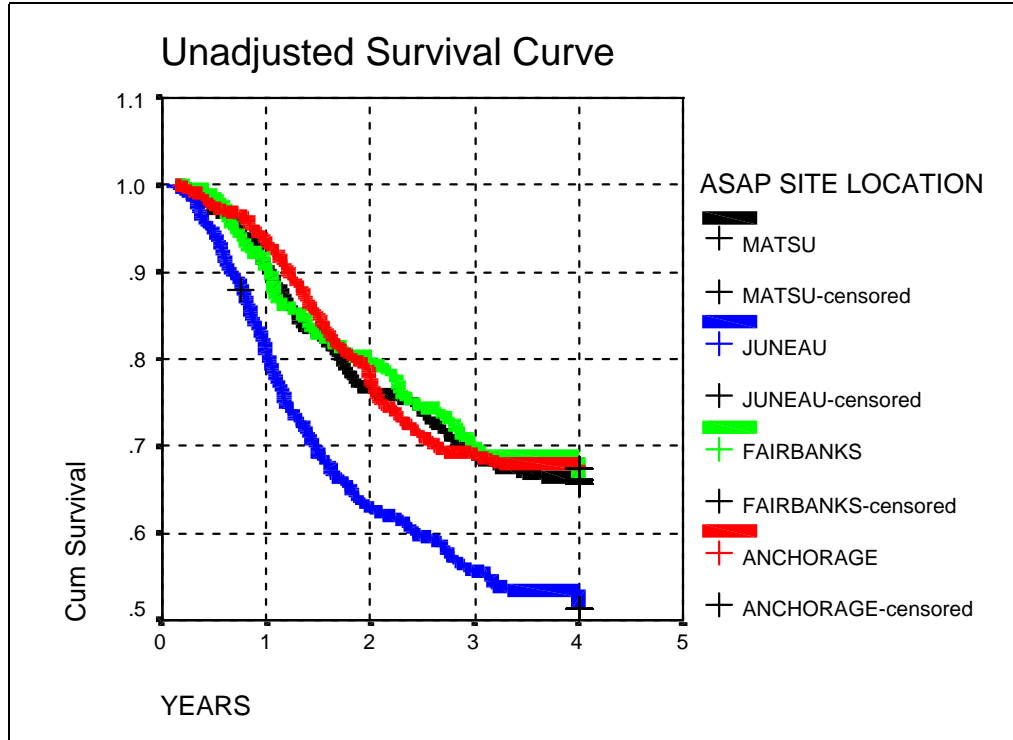
<b>Location</b>	<b>Survival Time (Years)</b>	<b>S.E.</b>	<b>Upper</b>	<b>Lower</b>	<b>N</b>
Anchorage	3.23	.06	3.11	3.34	402
Fairbanks	3.24	.09	3.07	3.42	183
Juneau	2.77	.08	2.61	2.92	332
Mat-Su	3.20	.08	3.05	3.35	262

The log rank statistic, used to evaluate the differences of survival times across sites, indicated that ASAP clients from Juneau had a significantly ( $p. \leq .05$ ) shorter time to re-offense than the other three sites. That is, it took a significantly shorter time for re-offenders from Juneau to commit their second offense than re-offenders from Anchorage, Fairbanks, or Mat-Su. No other between site differences in survival time was indicated. Figure 28 represents the survival curves between ASAP sites.

**Determining Which Predictor Variables Contribute to the Time it Takes to Re-offend: Cox-Stepwise Regression Analysis.** This procedure evaluates the relationships and attributes between the time from the 1994 offense to a documented re-offense within the study period while “adjusting” for and assessing the effects of several predictor variables. This procedure combines survival analysis and multiple regression by analyzing the distributions of survival time to re-offense, accounting for those who did not re-offend while assessing predictor variables from the same pool of variables evaluated in the logistic regression. The survival curves, adjusted by the selected predictor variables, are then reproduced.

Table 19 lists the variables identified to have the greatest association to predict the time to re-offense. Also provided is each predictor variable’s direction of contribution and significance. The “adjusted” survival curves by ASAP site are presented in Figure 29.

**Figure 28. Unadjusted Time to Re-offense Survival Curve across ASAP Sites**

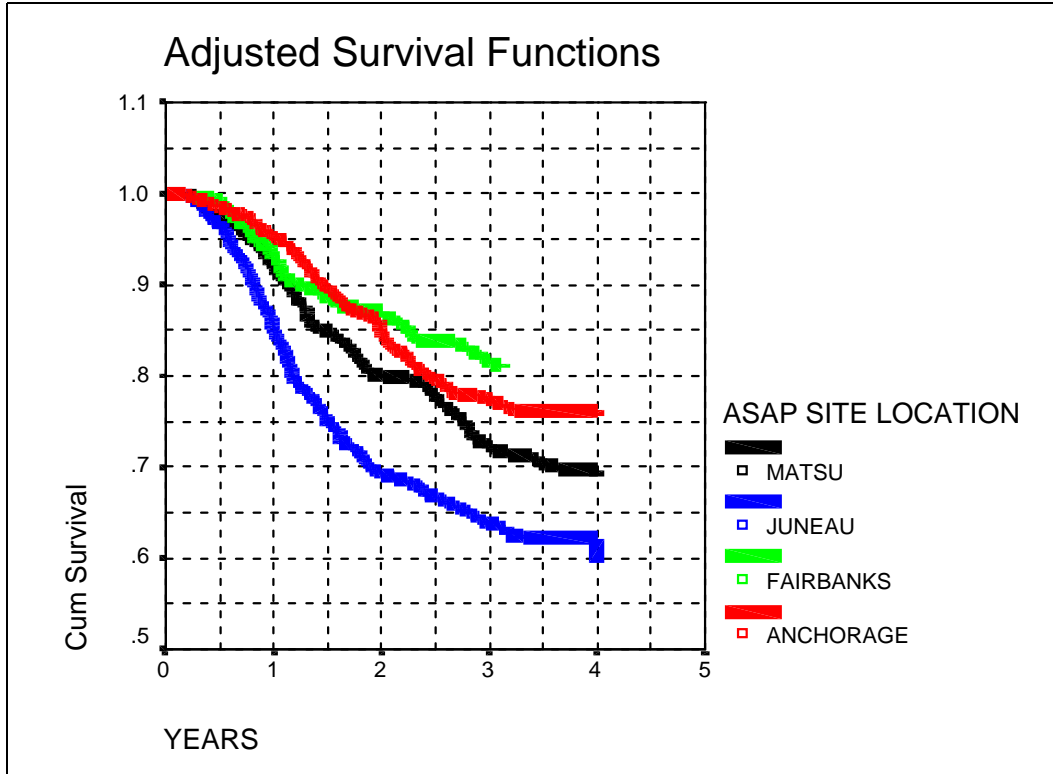


The variables described in Table 19, which were included in the stepwise Cox-regression model, indicated a significant effect on re-offense survival time (the time it took to re-offend). Figure 29 represents the adjusted survival curves for each ASAP site.

**Table 19. Cox Stepwise Regression of Adjusted Survival Times to Re-offence (N=396 re-offenders out of 871 available cases  $p. \leq .05$ )**

Variable	Contributes to an Early Re-offense	Significant
Age of Client	Younger	YES
Ethnicity	Alaskan Native	YES
Gender	Males	YES
Employment	Unemployed	YES
Conviction to Assignment	Greater number of elapsed days	YES
Prior Convictions	Greater number of prior convictions	YES
Problem Drinkers	Classified as problem drinkers	YES
Charge Class	Non-DWI clients	YES
Missing Data	May bias the results (adjusted survival curves)	
Missing Employment Data		YES
Missing Drinker Class Data		YES

**Figure 29. Adjusted Time to Re-offense Survival Curves across ASAP Sites**



#### IV. Discussion

**Summary.** This descriptive study began with the collecting and merging of alcohol offender and treatment data from selected ASAP locations throughout Alaska in order to gain an understanding of the arrest, adjudication, intake, and treatment processes across the state. Second, the study evaluated ASAP client characteristics within populated and urban areas and compared the data to the earlier studies of Kelso (1980) and Araj (1994). Third, the study evaluated the data to determine differences across the selected ASAP sites. Fourth, the study assessed and identified significant determinants for becoming a re-offender. Fifth, the length of time for an ASAP client to re-offend, and the variables associated with moderating that time, was evaluated. Finally, recommendations were provided regarding intake data protocol enhancement, process improvement strategies, and identification of the “high risk” problem drinker.

A secondary benefit of the ICHS study is the development and availability of Excel Spreadsheet and SPSS (statistical package) databases that include the merged court and ASAP site data for all the cases included in the study. The data may be accessed by state analysts or other researchers to review the current results or to conduct further studies. For example, survival studies across other classifications such as treatment types, drinker classification, ethnicity and other variables may be completed.

A process flow model for the ASAP program and a description of its component parts were developed and provided, as well as a comparison of the similarities and differences of the data collected from the four agencies. Intake process, data acquisition and storage, adjudication practices and treatment assignments were found to vary across ASAP site.

Comparisons of the overall population and drinker classification characteristics of the current study, which included Anchorage, Mat-Su, Fairbanks, and Juneau clients with the two previous studies (Anchorage clients only), were completed and found to be remarkably similar.

An evaluation of the population characteristics across the four ASAP sites (Anchorage, Fairbanks, Juneau, and Mat-Su) demonstrated a diverse population. Significant population differences across ASAP sites were indicated for education, age, income, ethnicity, marital status, BAC levels, drinker classification, DWI charge, completing treatment, re-offense rate, and the number of days from offense to conviction.

Significant differences in the number of prior convictions by drinker classification and DWI charge classifications were found within the total sample. That is, clients across all sites identified as problem drinkers and/or being arrested for non-DWI charges had a greater number of prior convictions.

Differences in the waiting time from conviction to treatment assignment were found between those who completed and did not complete treatment as well as those who did and did not re-offend. Clients across all ASAP sites who did not complete treatment and/or re-offended had longer waits to treatment assignment.

Several variables were evaluated to determine their association to alcohol related offenders committing a second alcohol related offence within four years of their first arrest. The variables found to be significantly associated with a higher probability for re-offending included; (1) being younger, (2) identified as an Alaska Native, (3) living in Juneau, (4) history of prior convictions, (5) a problem drinker, (6) committing a non-DWI offense, (7) increased waiting time from arrest to conviction (8) increased waiting time from conviction to treatment, and (9) not completing treatment.

The amount of time it took an ASAP client to commit a second alcohol related offense (Survival Time) within the four ASAP sites was evaluated. Anchorage, Fairbanks, and Mat-Su indicated similar survival rates. In contrast, Juneau's clients re-offended significantly earlier than the clients from the other three sites.

Several variables were evaluated to determine their association with reducing or shortening the time (Survival Time) for ASAP clients to re-offend. The following variables were found to be significantly associated with the survival time for re-offenders; (1) being younger, (2) identified as an Alaska Native, (3) being male, (4) unemployed, (5) increased waiting time from conviction to assignment, (6) history of

prior convictions, (7) identified as a problem drinker, and (8) being arrested for a non-DWI charge.

Although the courts were not a focus of this study, they appear to play a critical role in the intake, adjudication, and assignment process. Courts appear to have a direct impact on the amount of time defendants or clients spend in the process. They also establish initial ASAP requirements and enforce program compliance. Because of their importance, the courts should be included in any activity that evaluates and improves the intervention process flow and reduces the amount of time it takes for offenders to move through the system. As mentioned earlier, the amount of time it takes from offense to conviction and from conviction to assignment significantly affects the probability of re-offense and the amount of time to re-offend. Also, the timeliness and completion of treatment assignments appears to influence the progress of offenders through the system and is significantly associated with the rate of re-offense. Aggressive follow-up strategies may help clients through these processes, thereby decreasing the probability of committing a second offense.

The ICHS study indicates there are factors that identify clients who are more likely to re-offend. Factors include the age of the client, being Alaska Native, history of prior convictions, drinker classification, type of offense, waiting times to conviction and treatment, and completing assigned treatment. In addition, analysis indicated that the probability of a client re-offending has more to do with completing treatment than the actual type of treatment assigned. Aggressive case management in which clients are supported and encouraged to complete their assignment may be indicated.

No analysis was completed to evaluate any differences between military, non-profit and/or for-profit treatment programs, but future analysis is recommended to better understand these treatment ramifications.

Finally, client intake also plays a significant role in reducing recidivism. The likelihood for treatment completion increases when clients are screened and assigned in a timely manner. The appropriateness of currently used screening and evaluation tools should be further evaluated as they play such a critical role in the needs assessment component of the process.

## **V. Recommendations**

- Evaluate and redesign (possibly simplify) intake processes and data collection protocols by specifying common practices and identifying required data fields.
- Evaluate the issues and characteristics (e.g. socioeconomic, cultural, judicial, treatment environment, etc) that delineate the differences between the four ASAP sites and modify intervention and treatment processes to be consistent with the community environments.

- Initiate process improvement activities to evaluate and redesign the ASAP client activities and functions that take place during the times from arrest to conviction and conviction to assignment. Include law enforcement, courts, ASAP, and treatment providers in the process improvement and redesign efforts.
- Establish a *high-risk* ASAP client profile and redesign the identification, adjudication, intake, and treatment processes to target this population, and then evaluate the efficacy of the modifications.
- Develop and refine predicative models that can be used by ASAP staff in the field that will facilitate the identification of *high-risk* clients as early in the arrest, conviction, assignment and treatment process as possible.

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