2 - THE BASELINE SYSTEM

INTRODUCTION

In this chapter, we present a set of specifications describing the operation of a traditional, no-frills DWI enforcement system. This system was used in this project as a basis for analyzing DWI enforcement systems. Note that the baseline system was not chosen to represent the most common DWI enforcement systems nationwide. Rather, it reflects our perception of the least complex and most basic system as a standard for comparing the wide variety of systems that generate and enforce BAC laws.

The specifications define the functions of this baseline system at various levels of detail. A separate flow chart has been prepared for each level. Interfaces with other functions are depicted in the chart, and alternate paths to and from functions are shown. A narrative description of the process at a given level accompanies the flow chart, showing what is done in each function. Finally, a table is provided summarizing possible measures of the performance of the system in performing its various functions. Types of resources needed are also shown in the table.

As indicated in the prior chapter, this project is attempting to improve the functioning of the process through which BAC laws are enforced. The laws themselves state maximum BACs permitted for specified driver groups. General types of BAC laws of concern in this project are:

Group	BAC Limit
All Drivers	
DWI	0.08, 0.10
DUI	0.05, 0.08
Under Age 21	0.0 - 0.02
Commercial	0.04
Commercial (Out of Service)	0

Recognizing the complexity of the DWI enforcement process, we used a *systems approach* to help us organize our thinking. We did this to make sure that our analysis considered all of the important aspects of the entire process and did not end up recommending changes to one part of the process that might adversely affect other parts of the process. In other words, we want to improve the functioning of the *entire process* in its mission of reducing the traffic crash risk created by drinking drivers.

To apply the systems approach to this problem, we defined a *DWI enforcement system* that employs the processes and resources of the larger criminal justice system.

In attempting to reduce drinking-driving crashes, this DWI enforcement system performs four major functions:

- BAC Law Generation
- Law Enforcement
- Adjudication
- Sanctioning

In our analysis framework, we call these functions "top-level" functions. For the most part, these functions are performed sequentially. The *BAC Law Generation* function is an input function, and its processes were not examined here, but pertinent BAC laws that must be "enforced" by the other three functions were of concern.

This process, along with a summary description of the activities performed in each function and the resources (personnel, equipment, and facilities) involved in each function, comprises a top-level description of a DWI enforcement system.

Clearly, this description is much too broad to depict the complexity of such a system in some real jurisdiction. We needed to go to lower levels of detail to understand how such a system really works and to suggest changes that might improve its performance. To do this, we began breaking down each the top-level functions into smaller pieces that we call "lower-level functions." For example, the top-level function "Law Enforcement" in some given jurisdiction might have "Perform Surveillance" and "Detect Violator" as two of several lower-level functions. The relationships between these functions could also be depicted in a lower-level flow chart. We call a description at this level a "first-level description."

Even this level of detail is not sufficient for the purposes of this project. To decide what is really happening, we needed still more detail, and to get this detail, we broke down each of the first-level functions into its constituent second-level functions that were then flow-charted and described.

From this analysis, we obtained not only a description of what each part of the system does and the resources required for doing it, but also the *relationship* of each part to all other parts of the system. This information is essential for assessing the performance of the *whole system* and for generating ideas for improving system performance.

INFORMATION SOURCES

Information for developing the baseline system was obtained from several sources. These sources and the methods used in obtaining information are described below.

Telephone Contacts with System Staff

During the early stages of this project, we examined BAC laws in all fifty states based on the NHTSA "Digest of State Alcohol-Highway Safety Related Legislation" current as of January 1, 1996. States were classified according to the restrictiveness

Table 2-1: Restrictiveness of BAC Limits in Selected States at Start of Study

Group	State	BAC Limit				
		Presumptive	***Per Se***	**Admin *Per Se***	**Under 21**	**Commercial**
1 - Most	NC	0.08	0.08	0.08	0.00	0.04
Restrictive	NM	None	0.08	0.08	0.02	0.04
	CA	0.08	0.08	0.08	0.05	0.04
2 - Restrictive	AZ	0.10	0.10	0.10	0.00	0.04
	FL	0.08	0.08	0.08	None	0.04
	KS	0.08	0.08	0.08	None	0.04
3 - Least	SC	0.10	None	None	None	0.04
Restrictive	TN	0.10	None	None	0.02	0.04
	MS					
4 - Other	IL	0.10	0.10	0.10	0.00	0.04
	MA	0.08	None	0.08	0.02	0.04
	OR*	0.08	0.08	0.08	None	0.04

* Checkpoints not permitted

of their laws as measured by various BAC limits specified in state laws. Categories used were "Most Restrictive," "Restrictive," "Least Restrictive," and "Other." Three states in each category were identified as possible candidates for contact by telephone to obtain information about the operation of DWI enforcement systems in their state (see **Table 2-1**)[4].

[4] The *per se* limits for Tennessee and Illinois changed to 0.08 during the study.

Contacts were then made with Governor Highway Safety Representatives (GHSRs) and state-level agencies in these states to ask for their assistance in identifying potential sites that might be willing to discuss their systems with us. Our contacts at the state level suggested jurisdictions within their respective states and often provided the names of enforcement staff and other officials for Mid-America staff to contact.

Based on this information, officers from law enforcement agencies in four states (California, Florida, Kansas, and Illinois) were asked about BAC enforcement practices. A police officer from Hattiesburg, Mississippi was also contacted.

Law enforcement personnel who were contacted provided extensive detailed information on BAC enforcement practices and procedures within their jurisdictions. Anti-DWI enforcement topics covered included *surveillance and detection* techniques and cues, *apprehension* policies and practices, *field investigation*, *arrest procedures* and transporting of the violators, *post arrest investigation* and processing, and *prosecution support*.

Prosecuting attorneys from state attorney offices in three states (Kansas, Florida, and Illinois) were also asked about BAC adjudication practices. Topics of discussions included the *charging process, arraignment, trial, appeal*, *sanctions* and touched on the *administrative process*.

For the most part, the persons contacted were cooperative and candid in discussing the DWI enforcement system in their area. A summary of the information they provided is contained in the appendix.

Expert Panel Discussions

We asked our expert panel members to comment on a draft of a typical baseline system that we presented to them. The panel met twice during the project, in the first meeting to discuss the baseline system, and in the second, to identify system failures and to recommend potential fixes to the failures. The results of the first meeting were used to modify the draft description, the final form of which is presented below.

Staff Expertise

We also drew upon the experience of Mid-America staff with DWI enforcement systems. Mid-America has been involved in the analysis of such systems nationwide since the early 1970s. During that involvement we have visited and held discussions with staff from some 200 operational DWI enforcement systems in the United States.

RESULTS

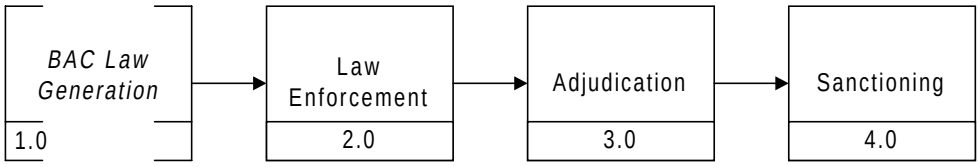
Top Level

The four top-level functions of the *baseline* DWI enforcement system are:

- BAC Law Generation
- Law Enforcement
- Adjudication
- Sanctioning

The overall flow of case processing at the top level is the same as that shown in the preceding section, which being:

Figure 2-3: Top-Level Flowchart of the Baseline DWI Enforcement System



Again, we note that the *BAC Law Generation* function is an input function, specifying the various BAC limits. The baseline system has a BAC of 0.10 as a presumptive limit[5]. The Federal limit of 0.04 for drivers of commercial vehicles also exists. No lower limit exists for minor-age drivers in the baseline system. Punitive sanctions specified by the laws are summarized in **Table 2-2**.

Table 2-2: Sanctions for DWI - Baseline System

Conviction	Criminal		Administrative
	Fine	Jail	License Suspension or Revocation
DWI, First	$200-$500	None	6-9 months
DWI, Second	$500-$1000	2 days-1 year	1-2 years
DWI, Third+	$1000-$2000	120 days-4 years	2-5 years
Refusal, First	--	--	1 year
Refusal, Second	--	--	2 years
Refusal, Third	--	--	5 years

Law Enforcement is performed by state and local agencies. It is concerned mainly with detecting and apprehending DWI violators, observing the suspect to decide whether to arrest, and processing of the suspect during and after arrest. An important

[5] This BAC limit applies only to the baseline system. As indicated in **Table 2-1**, states vary in their BAC limits, with several having *per se* limits of 0.08.

secondary element of enforcement is providing a deterrent threat to potential risk-takers simply through the presence of police or police symbols. Enforcement also supports operation of the entire DWI enforcement system by providing information - such as arrest records and accident reports - on the nature of risk.

Adjudication is most commonly associated with the courts where the rules of criminal procedure are followed to find out whether individuals accused of violating BAC laws are guilty. Before conducting the proceeding in which guilt or non guilt is determined (the "trial" when conducted by the judiciary), the accused offender is informed of the charge and his or her rights and may participate in one or more pre-trial hearings. Adjudication is also done by administrative agencies such as driver-licensing authorities. These proceedings are called "hearings" in which findings of fact are made by a hearing officer. On a less formal plane, adjudication can also be done by non adjudicative agencies of the DWI enforcement system. For example, a police officer may decide not to arrest a driver with a BAC very close to the legal limit, but to let another, sober, drive the vehicle. Similarly, a prosecutor may decide not to charge an arrested driver with drunk driving in return for the driver's promise to enter an alcohol treatment program. Finally, a driver may self-adjudicate by pleading guilty to the offense before a judicial trial or administrative hearing.

Sanctioning provides the ultimate deterrent threat of the DWI enforcement system. It can be done by the judiciary (for example, imposing a fine or a jail sentence), by an administrative agency (for example, by suspending a driver's license), or by a police officer (for example, by issuing a warning for some related offense such as speeding). Other, non punitive sanctions can also be imposed through such mechanisms as probation in which an offender agrees to participate in an alcohol treatment program in exchange for a reduction in a punitive sanction.

Law Enforcement

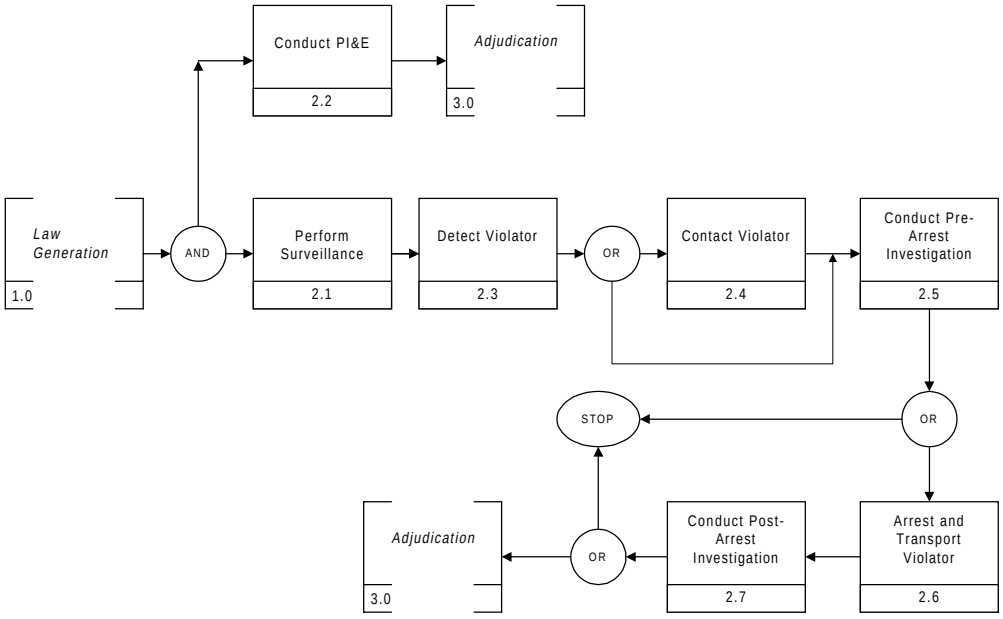
First Level. Constituent functions are shown in **Figure 2-2**. The first function, *Perform Surveillance,* is concerned with looking for violators, including selecting times and places for surveillance and then deploying police units at those times and places. It also includes actions taken and methods used by officers in obtaining information for identifying DWI drivers in the traffic flow or after a crash has occurred. Such information is concerned with driving behaviors or other characteristics associated with a DWI violation.

In the next function, *Detect Violators*, this information is used to identify an individual as a likely DWI in a specific instance, through either detecting drunk driving behavior, detecting other traffic law violations, or detecting other associated factors discovered during investigating a traffic crash.

The next function, *Contact Violator,* involves measures taken by police officers that will result in a face-to-face contact with a possible violator who was detected in the prior function. The objective of this function is to apprehend suspected DWIs. It is concerned with actions taken and methods used by officers in making the initial

contact with a suspected DWI identified during the surveillance and detection functions. In on-the-road detection, this function includes pursuit of the DWI and continues until the DWI has been pulled out of the traffic flow and both the patrol vehicle and the DWI suspect's vehicle have stopped.

Figure 2-4: Flowchart for Function 2.0, Law Enforcement



In *Conduct Pre-Arrest Investigation*, actions are then taken to decide (to the satisfaction of the field officer) whether the possible violator is a DWI-law violator or a non violator, and to decide what action (for example, an arrest) should be taken against an apprehended DWI suspect. For drivers apprehended by observing traffic, it includes all activity from the time the police officer approaches the suspected DWI's vehicle until the enforcement action is determined. For drivers involved in a crash, it includes all activity from the time the officer approaches a suspected driver until the enforcement action is taken. If the determination is "non-DWI violator," the sequence of functions is ended for that subject.

If the determination of the field investigation is "violator," and a decision is made to arrest the subject, the next function, *Arrest and Transport Violator*, is performed, resulting in the removal of the subject to facilities for further action. If the driver were injured and incapacitated in a crash, *Arrest and Transport Violator* is delayed as appropriate.

The "further action" will be taken in the next function, *Conduct Post-Arrest Investigation and Processing*, in which additional evidence of the violation is sought

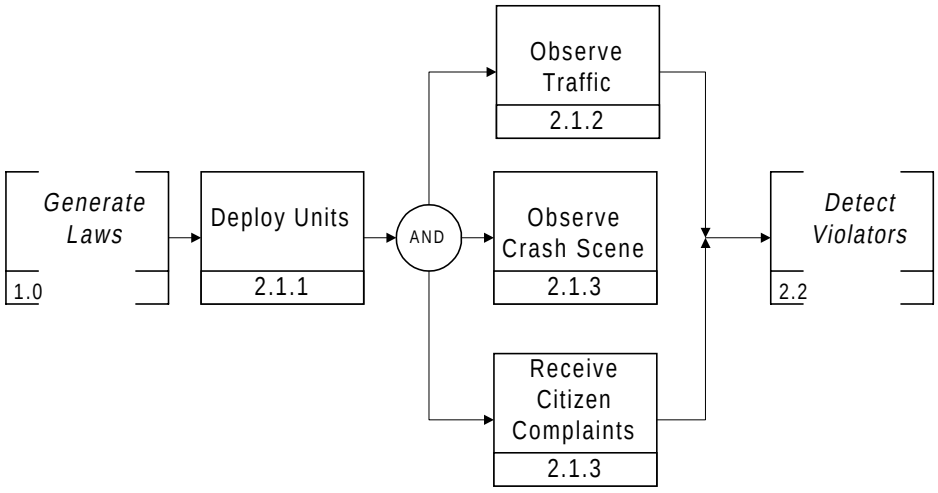
from the arrested suspect, and various procedures regarding record-keeping and disposition of the suspect are invoked.

All these functions are conducted against a background of public information and education (*Conduct PI&E*). Various mechanisms for publicizing the enforcement threat, ranging from hard news coverage to full-fledged public information campaigns are included.

Second Level. The first function, *Perform Surveillance*, is broken down into the lower-level functions (**Figure 2-3**):

- Deploy Units,
- Observe Traffic,
- Observe Crash Scene, and
- Receive Citizen Complaints.

Figure 2-5: Flowchart for Function 2.1, Perform Surveillance



Deploy Units is concerned with the assignment and placement of units to locations where they can look for DWIs. A strategy of "uniform" patrol is used in the baseline system. In this strategy, uniform coverage is maintained over a given geographical area. Marked vehicles are used during patrol (automobiles usually), with some support by motorcycles during warm weather. One-officer units are the rule, with two-officer patrols in high-crime areas. Units are used both in a stationary and moving mode.

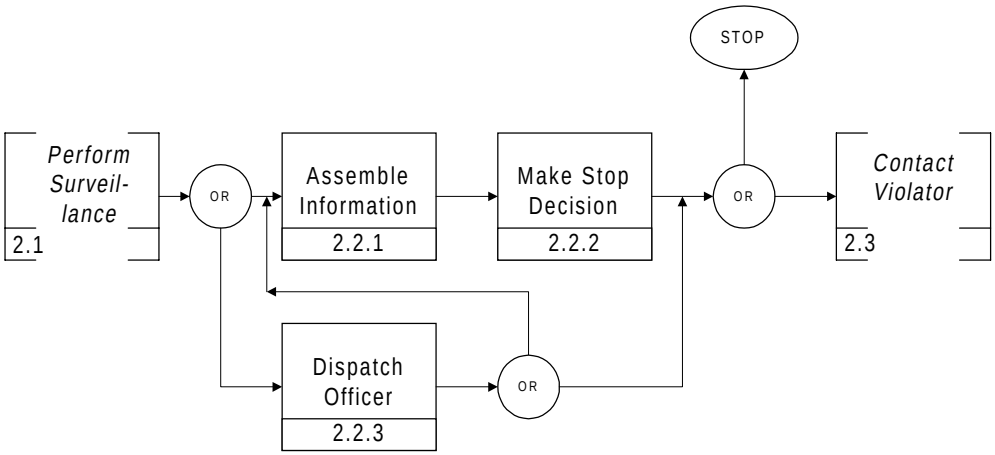
Two types of surveillance are performed: observation of moving vehicles on the road (the *Observe Traffic* function) and observation of conditions and behaviors at crash scenes to which a unit has been dispatched or has observed during patrol (the

Observe Crash Scene function). In the former function, gross signs of driving behavior indicative of DWI are looked for, for example, driving at a speed much higher or much lower than the posted limit; weaving and erratic driving; moving near or over the road center line; overshooting a stop; improper merging into traffic; and overcompensating to the left or right when passing another vehicle. In the latter function, a rapid assessment is made of the demeanor and commentary of persons at the scene (including the driver(s)); the environment; and the involved vehicles and their contents. In *Receive Citizen Complaints*, DWI incidents reported by citizens are received by police communications center staff.

The next function, *Detect Suspect*, involves the officer(s) from the patrol vehicle processing the information obtained in the *Surveillance* function to decide whether a violation has been detected. Three lower-level functions are involved (**Figure 2-4**):

- Assemble Information;
- Make Stop Decision; and
- Dispatch Officer.

Figure 2-6: Flowchart for Function 2.2, Detect Suspect

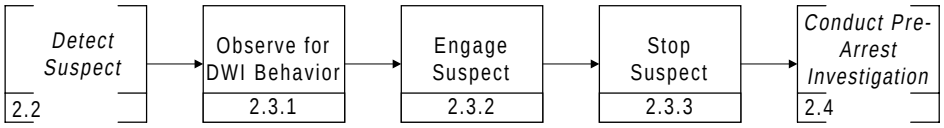


The first two functions follow observations made by the officer, and the third follows reception of a citizen complaint. In the *Assemble Information* function, information about an initial classification as a suspect is assembled. In *Make Stop Decision*, the surveillance officer decides whether the driver *is* a suspect and should be confronted for further classification. The emphasis is on identifying "marginal" drivers to get "good" DWI arrests that are likely to result in a conviction. In the *Dispatch Officer* function, an officer is sent to the location identified in the citizen complaint, and an affirmative decision to stop is implicit.

The next function, *Stop Vehicle*, contains the following three lower-level functions (**Figure 2-5**):

- Observe for DWI Behavior;
- Engage Suspect; and
- Stop Suspect.

Figure 2-7: Flowchart for Function 2.3, Stop Vehicle



First, the officer *Observes for DWI Behavior*, looking for such cues as overuse or exaggerated use of arm signals and attempts to dispose of beverage containers. If available, audiotape equipment is used by the officer to record his or her comments on the suspect's driving behavior.

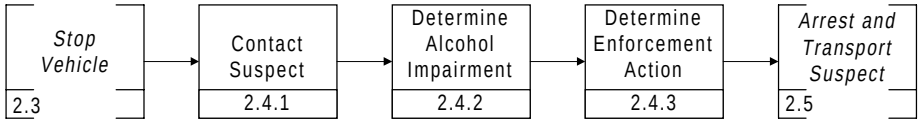
In *Engage Suspect*, the officer follows the suspect with the intent of stopping the vehicle. Techniques for getting the driver's attention include the use of flashers, horn, and siren (as a last resort). The officer looks for DWI cues as unusually fast compliance to signal to stop, slowness in stopping, and seeming ignorance of officer's signal to stop.

Stop Suspect involves: stopping the suspect driver as soon as possible after probable cause has been ascertained; choosing a safe stopping point; calling in the vehicle's registration number at the time of the stop; and not allowing the suspect to operate his or her vehicle in any manner after the stop unless it is determined that he or she is not impaired.

The lower-level functions of the *Conduct Pre-Arrest Investigation* function are (**Figure 2-6**):

- Contact Suspect;
- Determine Alcohol Impairment; and
- Determine Enforcement Action.

Figure 2-8: Flowchart for Function 2.4, Conduct Pre-Arrest Investigation



In *Contact Suspect*, the officer approaches the stopped driver from the driver side and stands to the rear of the suspect's left front door. In two-person patrol units, the approach is made from both sides of the suspect's vehicle. The officer observes the occupants' actions to ensure, among other things, that the driver can be identified.

Determine Alcohol Impairment follows. This is accomplished by observing the suspect's demeanor, walk, speech, odors of alcoholic beverage, and manual dexterity ("totality of the circumstances").

The last sub-function is *Determine Enforcement Action* and involves deciding which immediate actions should be taken by the police from the pre arrest investigation. Alternatives are:

- Arrest the suspect for DWI;
- If it is unclear if the suspect is impaired and should be arrested, have the suspect lock his or her car and leave it at the scene, or have some other person who is not impaired (such as a taxi driver or passenger) drive the suspect's vehicle (with suspect) home;
- Arrest or cite the suspect for another violation; and
- Release the suspect.

The DWI enforcement process continues only for the first alternative.

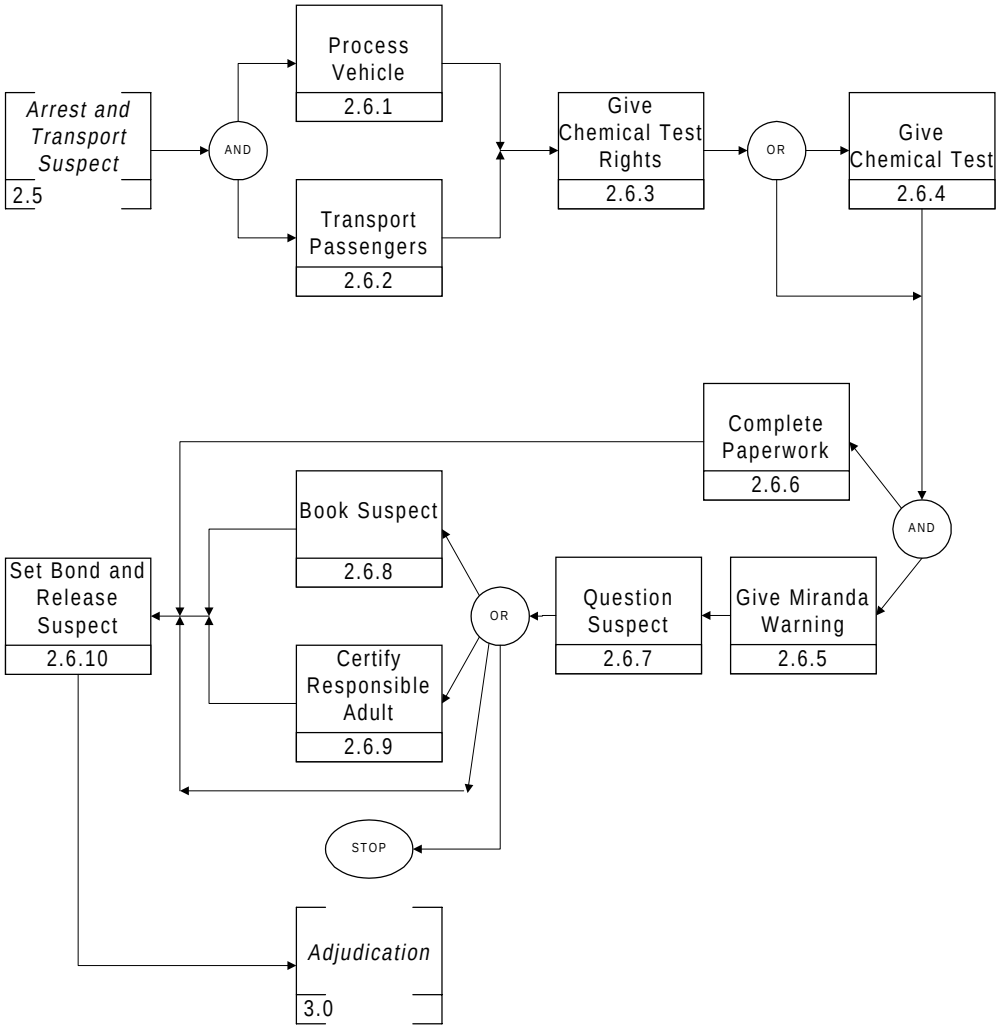
No lower-level functions exist for the *Arrest and Transport Suspect* sub-function. The suspect is arrested, placed in the patrol car, and taken by the arresting officer to the designated station or substation for further processing. The Miranda warning is read immediately after the arrest and breath test if there is custodial questioning.

Conduct Post-Arrest Investigation and Processing, involves traditional in-station breath testing, hand preparation of documents, and release pending prosecution Sub-functions are (**Figure 2-7**):

- Process Vehicle
- Transport Drunk Passengers
- Give Rights Regarding Chemical Tests
- Give Chemical Test *or* Notify DMV of Test Refusal
- Question Suspect (Miranda applies)
- Complete Paperwork
- Book Suspect into Jail (Jail Personnel) *or* Release Suspect to Responsible Adult
- Set Bond and Release Suspect

The flow of the processing is depicted in the chart below.

Figure 2-9: Flowchart for Function 2.6, Conduct Post-Arrest Investigation and Processing



In *Process Vehicle*, the vehicle of the arrested DWI is released to a responsible person if available and if the suspect consents. Otherwise, the vehicle is secured and left at a safe place at the site of the arrest. Alternative ways to *Transport Impaired Passengers* include calling a taxi, having a sober passenger to take them home, and calling an additional officer to take them home or to a detoxification facility.

At the station, the first step in the post arrest processing of the suspect is to advise him or her of their rights with respect to a chemical test for BAC (*Give Chemical Test Rights*). If the suspect then refuses the test, the chemical test is bypassed.

In *Give Chemical Test*, an evidentiary breath test is administered according to specified standards by a certified breath test operator other than the arresting officer. Commercially available equipment is used.

Question Suspect occurs immediately after the chemical testing. The *Miranda Warning* is given prior to this custodial questioning. Typical questions asked include how much the suspect had to drink, where he or she was coming from when arrested, and other circumstances of the drinking-driving event and arrest.

During and after the questioning, the arresting officer completes the paperwork associated with the arrest (*Complete Paperwork*). Much of the paperwork will have been started before this point, starting immediately after the arrest. The types of paperwork include:

- arrest report;
- citation or summons;
- alcohol influence report;
- booking forms;
- advice of chemical test rights form including refusal (if any);
- forms for notifying the DMV of administrative law violations, including the implied consent law (chemical test refusal); and
- chemical test forms.

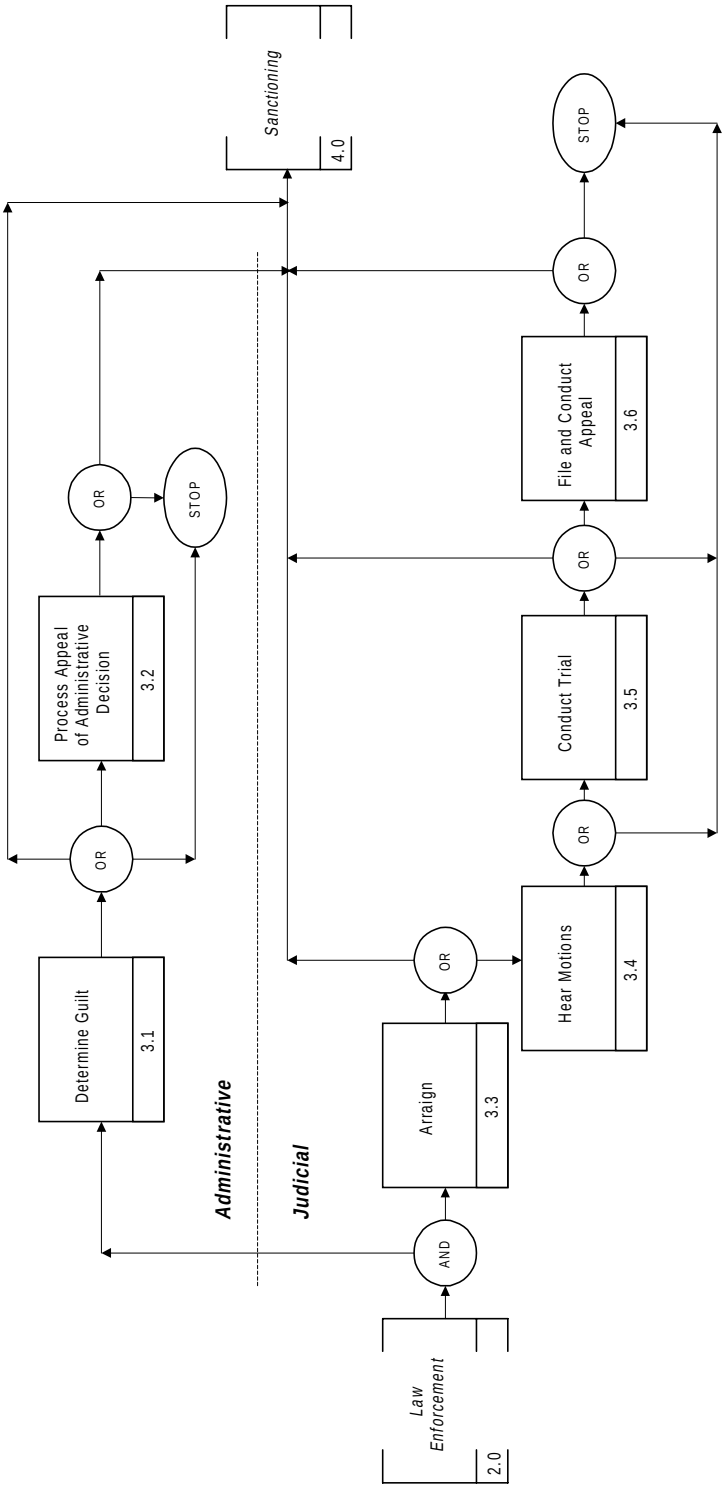
After completion of the questioning, a decision is made whether to book the suspect into jail or to release the suspect immediately. A major factor in this decision is whether the suspect is now sober. If sober, the suspect will be released following the next function (*Set Bond and Release Suspect*). If not sober, the suspect will be released to a responsible adult who will certify that he or she will be responsible for the suspect (*Certify Responsible Adult*). If such a responsible adult cannot be found, the suspect will be booked into jail to "sober up." The suspect will remain in jail until arraignment only if he or she has outstanding warrants or is unable to post a bond.

The booking process (*Book Suspect*) consists of the administrative procedures necessary to process the DWI into jail. It includes fingerprinting, photographing, filling out paperwork, and taking care of the prisoner's personal effects. The booking is performed by an officer at the police station.

Adjudication

First Level. Adjudication involves two separate processes, an administrative process and a judicial process, that go on in parallel (See **Figure 2-8** above). In the administrative process, the State driver licensing agency adjudicates any violation of the implied consent law. In *Determine Guilt or Innocence*, the driver will be found guilty of a violation if he or she refused the chemical test.

Figure 2-10: Flowchart for Function 3.0, Adjudication



Sufficient evidence for a finding of guilty is the paperwork prepared by the appropriate law enforcement person during the post arrest processing (function 2.6.6 above). The driver may appeal a finding of guilty by requesting an administrative hearing after which the agency will *Rule on Appeal of Administrative Decision*. Further levels of appeal are also available through the judicial process.

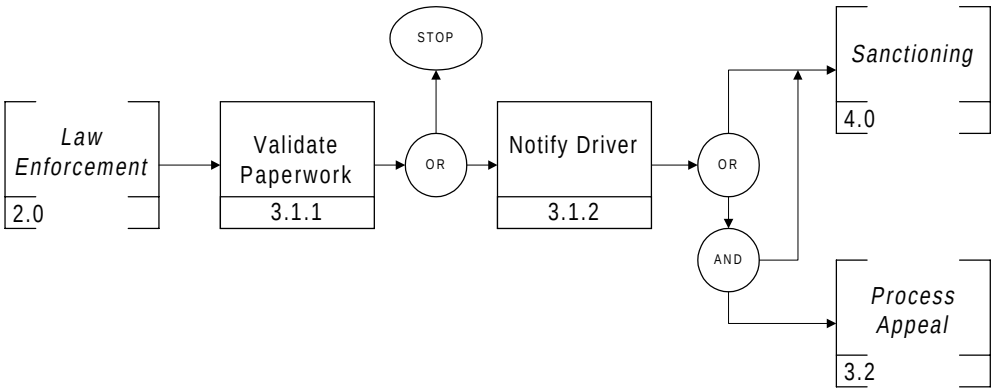
The judicial branch of the adjudication process follows standard procedures for handling criminal cases. (In the baseline system, one or two DWI convictions within five years are treated as a misdemeanor with a maximum jail sentence of one year, and three or more DWI convictions within five years are treated as a felony with a prison sentence of up to five years.) The process starts with the *Arraign* function in which the accused DWI appears before a judge or magistrate, has the charge explained, and is asked to plead guilty or not guilty. A plea of not guilty will lead to *Hear Motions* where pre-trial hearings are conducted, motions are filed with the court on various aspects of the case, and plea bargains may be negotiated. A plea of guilty will lead directly to the sanctioning function. A failure to negotiate a plea will lead to *Conduct Trial*. It is also possible that the charge may be dismissed at this point before or during the trial due to some irregularity or other circumstance, in which case the process will end.

The trial will have three possible outcomes, a verdict of guilt, a verdict of not guilty, a hung jury, or a mistrial. A guilty verdict leads to sanctioning or, if an appeal occurs, *Rule on Appeal of Judicial Decision*. A not-guilty verdict ends the process, and a hung jury or a mistrial could result in either a retrial or a dismissal (not shown).

Second Level - Administrative. The first function, *Determine Guilt*, involves two lower-level functions as follows (**Figure 2-9**):

- Validate Paperwork
- Notify Driver

Figure 2-11: Flowchart for Function 3.1, Determine Guilt - Administrative



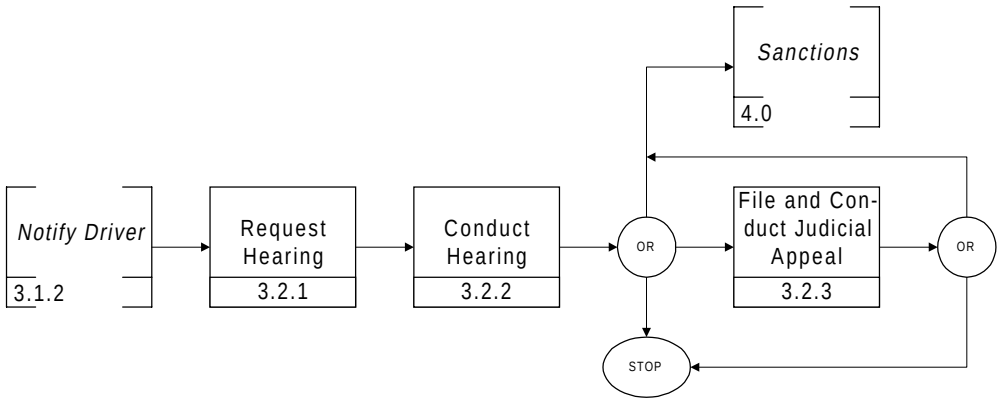
Determination of guilt is routine for the breath-test refusal violation, depending only on the validity and completeness of the paperwork prepared during the enforcement function. The paperwork is minimal, consisting of a form containing a written certification from the arresting officer that a test was refused. Driver identification data and the date and locations of the refusal or test are provided.

The driver is notified by letter of the results of the administrative finding. If a determination of guilty is made, the driver may either accept the determination and the sanction that follow or ask for a hearing. If a hearing is requested, the license is revoked pending the outcome of the appeal process.

Applicable lower-level functions for *Process Appeal of Administrative Decision* are (**Figure 2-10**):

- Request Hearing
- Conduct Hearing
- File and Conduct Judicial Appeal

Figure 2-12: Flowchart for Function 3.2, Process Appeal of Administrative Decision



A hearing may be requested within some specified period of time after the driver has been notified of the administrative determination of guilt (*Request Hearing*). It is to the driver's advantage to request a hearing soon, since the administrative sanction will follow immediately after the determination of guilt. However, the driver may request a temporary license for the entire period of the administrative review process. The administrative agency must conduct a requested hearing within 15 days after receiving the request for one (*Conduct Hearing*). An administrative hearing officer will conduct the hearing, and the arresting officer must be present.

The driver may ask a district court to review the administrative decision (*File and Conduct Judicial Review*), and the court may stay the administrative decision only if a substantial question is presented to the court.

Second Level - Judicial. The first function, *Arraign*, has no lower-level functions. Arraignments are conducted in the court of jurisdiction. The court is required to inform the defendant of:

- the name of the offense charged;
- the maximum sentence permitted by law;
- the minimum mandatory sentence;
- his or her right to the assistance of a lawyer and a trial by jury; and
- if indigent, his or her right to an appointed lawyer.

The defendant is then asked how he or she pleads. Before accepting a plea of guilty or no contest, the court must advise the defendant that if the plea is accepted, there will be no trial. Also, the court must determine that the plea is voluntary and that there is support for the charged drunk-driving offense.

The next function, *Hear Motions,* has three lower level functions (**Figure 2-11**). First, the court *Schedules Pre-Trial Hearings* of motions dealing with various aspects of the case and during which pleas may be negotiated. Most issues involved will be concerned with the evidentiary aspects of the case as related to:

- Risk identification - Is the accused violator the actual violator?
- Fundamental fairness - Does the adjudicative process protect the rights of the accused violator?

Specific issues could be: probable cause for the traffic stop and arrest; Miranda warnings; and refusal to take a chemical test, among others. For example, a motion may ask, because there was no probable cause to stop the car, that all evidence obtained from the stop be suppressed because the stop and arrest were illegal and violated the defendant's basic rights. The judge rules on the motion, usually after hearing arguments from both sides. In the next function, *Conduct Trial*, standard procedures for conducting criminal trials are followed. The seven sub-functions are sequential as indicated in the flow chart below (**Figure 2-12**).

A docket showing the date and time of the trial is prepared by the court clerk after the arraignment. A jury is selected in the usual way and instructed by the court in various legal terminologies and in its conduct during the trial. (Other instructions may follow during the trial, for example, instructions on the admissibility of the defendant's refusal to submit to a BAC test as evidence.) Both sides may make opening statements, after which the prosecution presents its case, calling its witnesses that will include the arresting officer, and possibly, the BAC-test operator. The defense counsel then presents its response to the charge, calling its witnesses that may include the defendant if the defendant so wants. Cross examinations may occur after each witness's testimony.

Figure 2-13: Flowchart for Function 3.4, Hear Motions - Judicial

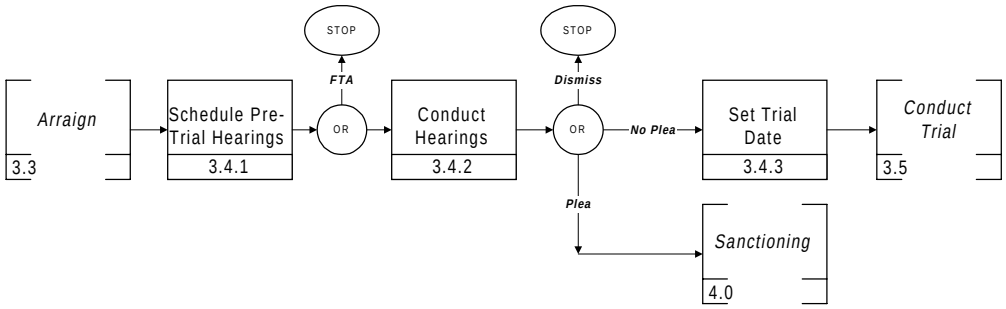
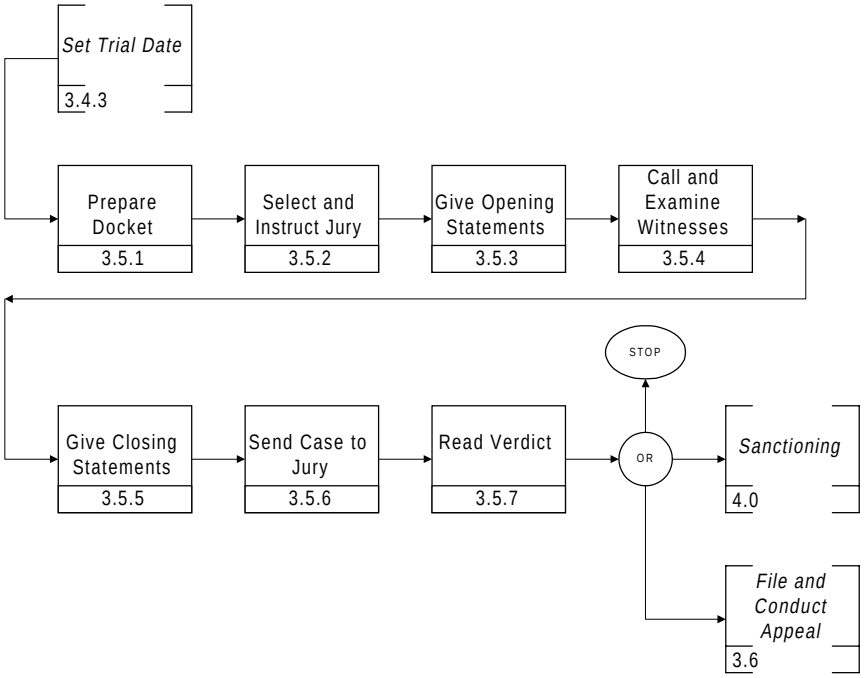


Figure 2-14: Flowchart for Function 3.4, Conduct Trial - Judicial



After closing arguments by both sides, the judge instructs the jury again on the critical aspects of the case, and releases the jury for its deliberations and its verdict. The jury's verdict is then read, after which the defendant is released (a not-guilty verdict), or, if guilty, proceeds to the sanctioning function or files an appeal. If the jury cannot reach a verdict, the prosecutor may choose to retry the case.

No lower-level functions exist for *File and Conduct Appeal*. Standard procedures are followed in filing and conducting the appeal.

Sanctioning

First Level. As with the adjudication function, sanctioning involves separate administrative and judicial processes (**Figure 2-13**). In the administrative process, the State driver licensing agency imposes the required driver license sanctions (see law generation function above). All other sanctions are imposed in the judicial process.

In the judicial process, the first function is to prepare a sentencing package that may include an offer of probation that will require the violator to enroll in an alcohol treatment or education program. In exchange for accepting probation and agreeing to complete the program successfully and follow other conditions specified by the court, the violator is offered a reduction in the traditional sanctions permitted by law (for example, jail time or amount of fine). If probation is not accepted (or offered), the more severe traditional punitive sanctions are imposed. If probation is accepted, probation staff diagnoses the extent of any drinking problem underlying the offense, and refers the violator to an appropriate alcohol treatment or education program (*Diagnose and Refer*).

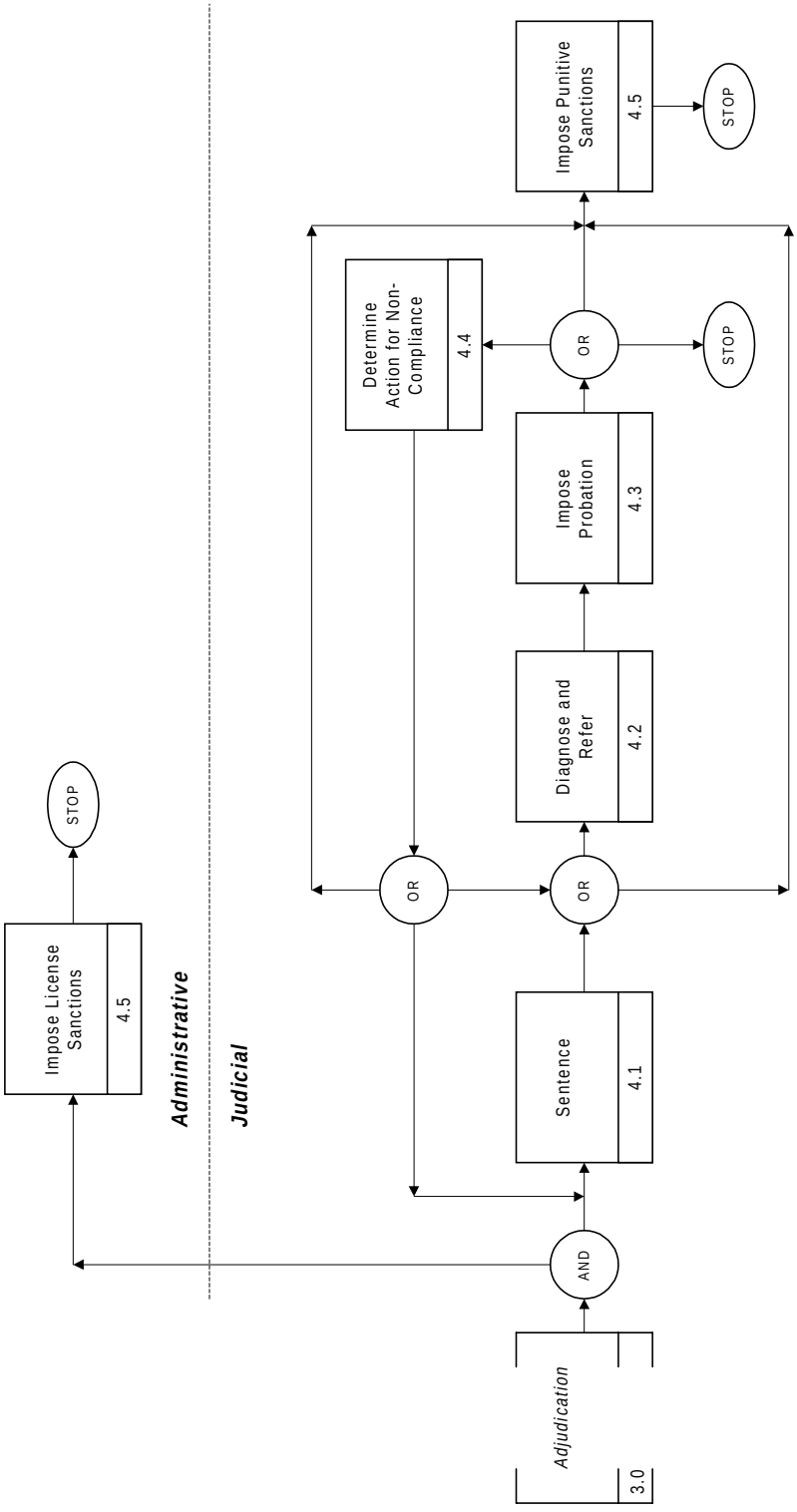
During probation, the offender is supervised by a probation officer who attempts to ensure that the conditions of probation are followed (*Impose Probation*). Failure to comply with the conditions of probation will result in a hearing to *Determine Action for Non-Compliance*. Possible outcomes of the hearing are: return to the sentencing function for re-sentencing; return to probation to complete the treatment program as ordered; or immediate revocation of probation.

In the final function the judge will *Impose Punitive Sanctions*. The severity of the sanctions (including suspension of all punitive sanctions) depends primarily on the number of prior DWI offenses, and on the final outcome of pre-trial negotiations.

Second Level - Administrative. No lower-level functions exist for this function. A description of the sanctions imposed are placed in the violator's driver record maintained by the administrative agency. If an appeal of an implied consent determination favors the defendant, then the license (which has been revoked pending the outcome of the hearing) is automatically reinstated.

Second Level - Judicial. No lower-level functions exist for the *Sentence* function. The judge selects a sentencing "package" that will be offered to the offender. The sentencing package says which punitive sanctions are to be imposed and sets forth the conditions of probation. The consequences of the offender not accepting and/or complying with the probationary conditions (i.e., more severe punitive sanctions) are explained to the offender. The offender decides whether to accept the conditions of probation, and the judge then specifies the sentence.

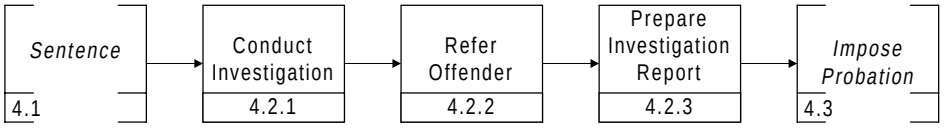
Figure 2-15: Flowchart for Function 4.0, Sanctioning



The *Diagnose and Refer* function contains three lower-level functions. They are (**Figure 2-14**):

- Conduct Investigation;
- Refer Offender; and
- Prepare Investigation Report.

Figure 2-16: Flowchart for Function 4.2, Diagnose and Refer



This function is performed by a probation officer from the court's probation department. First, an investigation is conducted (*Conduct Investigation*) during which the probation officer checks the state's criminal justice information system and the state's driver records system to obtain information on prior convictions. One or more interviews are conducted during which an alcohol assessment instrument (the Mortimer-Filkins protocol) is administered.

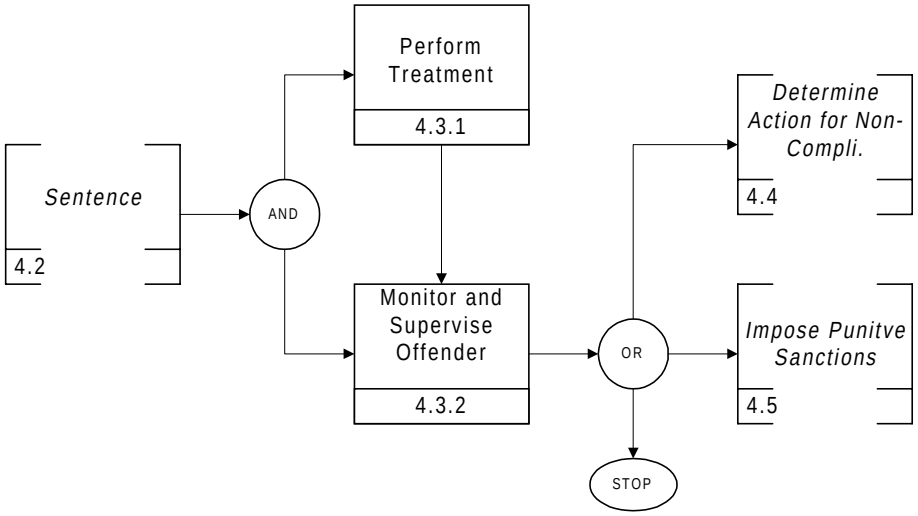
After the interviews are completed, a referral is made to an alcohol treatment or educational program (*Refer Offender*). Referral is made based on information gathered during the investigation, for example, whether the violator was classified as a problem drinker, and whether the violator has participated in other treatment programs. The probation officer then prepares a brief report describing the results of the investigation, and outlining the recommended treatment (*Prepare Investigation Report*).

The *Impose Probation* function includes two lower-level functions (**Figure 2-15**):

- Perform Treatment and
- Monitor and Supervise Offender.

As indicated in the diagram, both sub-functions are performed essentially in parallel. Note that, at this stage of the process, the offender has already enrolled in a treatment program following an assessment to determine treatment needs. In *Perform Treatment* one of the two programs offered will be administered to the offender, a program for offenders who are classified as not having a drinking problem and a program for offenders who are classified as having a drinking problem. Both levels are conducted on an outpatient basis.

Figure 2-17: Flowchart for Function 4.3, Impose Probation



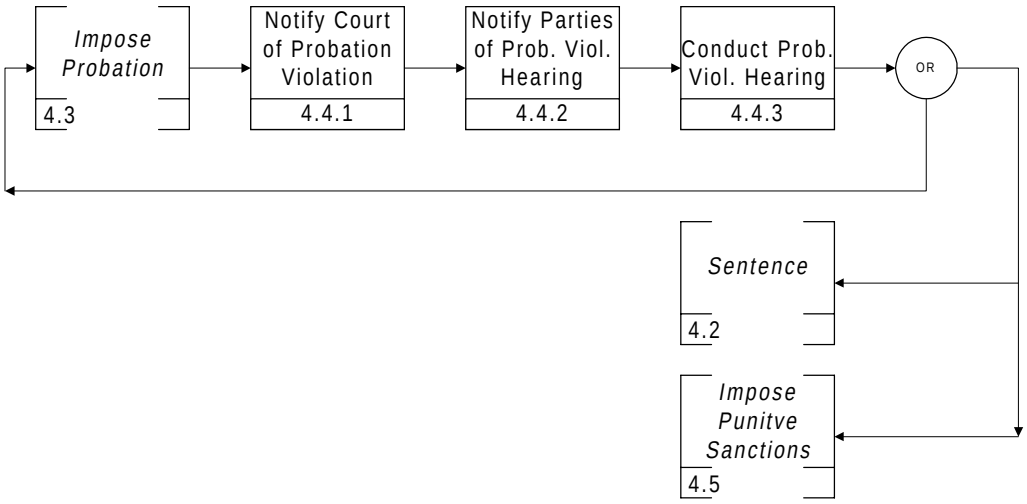
Monitoring and Supervision requires the offender to report periodically to his or her probation officer who will have information on the offender's attendance in the treatment program and on the offender's general progress in the program. Information from criminal justice data systems and from driver records data systems will also be available to the probation officer. Once the probation period is completed and the conditions have been satisfactorily met, probation is ended, and the court completes the file on the offender. At this point, the defendant is no longer subject to the traditional sanctions for which the probation was substituted, but still must receive any reduced sanctions (including time in jail or in prison if a felony) specified in the sentencing package.

The next function, *Determine Action for Non-Compliance,* is performed when the offender does not follow the conditions of probation agreed to at sentencing. Lower-level functions are (**Figure 2-16**):

- Notify Court of Probation Violation;
- Notify Parties of Probation Violation Hearing; and
- Conduct Probation Violation Hearing.

The first action is to *Notify Court of Probation Violation.* Then, the judge begins violation-of-probation proceedings against the offender, and *Notify Parties of Probation Violation Hearing*. In *Conduct Probation Violation Hearing* the offender may be represented by counsel.

Figure 2-18: Flowchart for Function 4.4, Determine Action for Non-Compliance



If the violation is upheld, the judge may stop the probation and impose the traditional sanctions or may reinstate and/or extend the probation up to the maximum limit allowed by statute. (Most often, the judge will show a good deal of leniency in allowing probation periods to be reinstated.) If the judge does not uphold the violation (a rarity), probation is reinstated. The offender may appeal a finding confirming the violation.

The last sanctioning function is *Impose Punitive Sanctions*. No lower-level functions exist for this function. Sanctions are a mixture of a fine, driver license suspension, and incarceration in jail or prison. The severity of the sanctions depends primarily upon the number of prior DWI offenses, and on whether the offender accepted and successfully completed probation. If the offender has less than three priors in a period of five years preceding the arrest for this offense, this offense will be considered a misdemeanor, with a maximum jail term of one year. Otherwise, the offense will be considered a felony. The offender is also required to pay the cost of the treatment program.

MEASURES OF REQUIREMENTS AND PERFORMANCE

This section presents lists of measures of (1) how well the various functions of the BAC law enforcement system are performed (performance measures) and (2) the resources required for performing those functions (requirements measures). The measures are organized as above by function, and are contained in three tables, starting with enforcement functions (**Table 2-3**, **Table 2-4**, and **Table 2-5**) and proceeding successively through the adjudicative and sanctioning functions (**Table 2-6**, **Table 2-7**, and **Table 2-8**).

Some functions have more than one performance measure, for example, time to do the function for a given case, and percent of cases processed with given results. Requirements measures are stated as to:

- personnel requirements (for example, four hours per case for a patrol officer);
- equipment requirements (for example, a BAC measurement device); and
- facility requirements (for example, floor space for conducting BAC tests).

Quantifying such detailed measures using objective data will be all but impossible in most real-world jurisdictions. This is because such detailed data are not routinely kept, and constructing new data systems to provide the data would be prohibitively expensive and time-consuming. The main value of such measures is to provide a list of items that can be assessed subjectively by system managers (for example, police chiefs, prosecuting attorneys, presiding judges, and court administrators). This will allow them to learn whether improvements are needed in various parts of their system and to estimate the resources needed to improve performance. Both nominal (e.g., high, average, and low) and ordinal (e.g., 1, 2, and 3) scales could be used in such an assessment.

More aggregated measures *could* be quantified in most systems. For example, the performance of the top-level adjudication function could be broken down into the following components:

- Charging
  - ✓ Charge
  - ✓ No Charge

- Arraignment
  - ✓ Plea
  - ✓ No Plea
  - ✓ Fail to Appear
  - ✓ Dismissed

- Pre-Trial
  - ✓ Plea
  - ✓ No Plea
  - ✓ Fail to Appear
  - ✓ Dismissed

- Trial
  - ✓ Guilty
  - ✓ Not Guilty
  - ✓ Fail to Appear
  - ✓ Dismissed

Then, the percentage of defendants moving from a given state (say, "no plea" during pre-trial) to various other permissible states (say, "guilty" after trial) could be determined and combined to provide an estimate of the probability of conviction given an arrest. This conditional probability would serve as a performance measure for the adjudication subsystem as a whole. Similarly, measures of overall law enforcement performance and overall sanctioning performance could be estimated and combined with adjudication system performance to give a quantitative measure of the performance of the total system.

Examination of such a model reveals that system performance will not be a linear function of the subsystem performance parameters. The effect of a given percentage change in one of the subsystem performance parameters on overall system performance will depend on the baseline value of that parameter. For example, a system in which 50% of the defendants set for trial do not appear will realize a greater percentage increase in system performance by reducing failure to appear (FTA) by 50% (to a rate of 25%) than will a system in which 20% of the defendants fail to appear. Consequently, one cannot give general rules on which subsystem changes will be the most productive. The productivity of such changes will depend on the starting point, which demands that each jurisdiction should carefully examine the performance of its current system and its subsystems before undertaking large-scale changes.

Table 2-3: Performance and Requirements Measures for Perform Surveillance, Detect Suspect, and Apprehend Suspect

Function	Performance Measures	Requirements Measures		
		Personnel	Equipment	Facilities
Perform Surveillance				
Deploy Units	Patrol units deployed per licensed driver per unit time, appropriateness of deployment	Headquarters staff hours per unit deployed (planning and briefing)	Computer and record system	Headquarters building
Observe Traffic	Time spent observing for DWI per patrol unit, percent needed information recorded per unit	Patrol officer hours per unit	Patrol car	None
Observe Crash Scene	Time from crash to arrival at scene per event, time spent observing per patrol unit, percent needed information recorded per unit	Dispatcher hours per crash, patrol officer hours per crash	Patrol car	Headquarters building
Detect Suspect				
Assemble information	Percent of needed info recorded per officer per event / crash	Patrol officer hours per unit time / crash	Patrol car	None
Make Decision to Stop	Use of proper rules, stop decisions per officer per unit time	Patrol officer hours per unit time / crash	Patrol car	None
Contact Suspect				
Pursue Suspect	Time in pursuit per event, percent hot pursuits	Patrol officer hours per event	Patrol car	None
Observe for DWI Behavior	Cues sought	Patrol officer hours per event	Patrol car	None
Stop Suspect	Percent caught per event	Patrol officer hours per event	Patrol car	None

Table 2-4: Performance and Requirements Measures for Conduct Pre-Arrest Investigation, and Arrest and Transport Suspect

Function	Performance Measures	Requirements Measures		
		Personnel	Equipment	Facilities
Conduct Pre-Arrest Investigation				
Approach Vehicle / Suspect	Suspects escaped, officers injured, elapsed time per event	Patrol officer hours per event	Patrol car	None
Screen for Alcohol Impairment	Elapsed time per event; percent correct decisions; percent positives	Patrol officer hours per event	Patrol car	None
Determine Alcohol Impairment	Elapsed time per event; percent correct decisions; percent positives	Patrol officer hours per event	Patrol car	None
Determine Enforcement Action	Percent correct decisions per unit, elapsed time to make decision per event	Patrol officer hours per event	Patrol car	None
Arrest and Transport Suspect	Elapsed time to transport per event	Patrol officer hours per arrest	Patrol car	None

Table 2-5: Performance and Requirements Measures for Conduct Post-Arrest Investigation and Processing

Function	Performance Measures	Requirements Measures		
		Personnel	Equipment	Facilities
Conduct Post-Arr. Invest. and Process.				
Process Vehicle	Elapsed time per event	Patrol officer hours per event	Patrol car	None
Transport Drunk Passengers	Elapsed time per event	Patrol officer, or additional officer	Patrol car(s)	None
Give Rights on Chem. Tests	Elapsed time per event, percent given correctly	Patrol officer hours per event	Patrol car	Headquarters building
Give Chemical Test	Elapsed time per event, percent given correctly, percent refusals	Chem test operator hours per event; Patrol officer hours per event	Breath test equipment	Headquarters building
Question Suspect	Elapsed time per event, percent info items covered	Patrol officer hours per event	Patrol car	Headquarters building
Prepare Paperwork	Elapsed time per event, percent needed info provided per event	Patrol officer hours per event	Patrol car	Headquarters building
Book Suspect into Jail	Elapsed time per event, percent booked correctly	Patrol officer hours per event	Patrol car	Headquarters building
Set Bond and Release	Elapsed time per event, percent booked correctly	Patrol officer hours per event	Patrol car	Headquarters building

Table 2-6: Performance and Requirements Measures for Determine Guilt (Administrative), Process Appeal of Administrative Decision, and Arraign

Function	Performance Measures	Requirements Measures		
		Personnel	Equipment	Facilities
Determine Guilt (Administrative)				
Validate Paperwork	Elapsed time per case, percent cases with valid paperwork.	Clerical hours per case	Computer system, office equipment	DMV office space
Notify Driver	Elapsed time per case, percent cases driver notified.	Clerical hours per case	Computer system, office equipment	DMV office space
Process Appeal of Administrative Decision				
Request Hearing	Elapsed time to process request, percent drivers requesting hearings.	Clerical hours per case	Computer system, office equipment	DMV office space
Conduct Hearing	Elapsed time before hearing, elapsed time for hearing, percent decisions upheld.	Hearing Officer hours per case	Computer system, office equipment	DMV office space
File and Conduct Judicial Appeal	Elapsed time before appeal hearing, percent admin. decisions upheld.	Clerical hours per case	Computer system, office equipment	Courtroom, court staff office space

Table 2-7: Performance and Requirements Measures for Arraign, Hear Motions, Conduct Trial, and File and Conduct Appeal

Function	Performance Measures	Requirements Measures		
		Personnel	Equipment	Facilities
Arraign	Elapsed time from arrest to arraignment, percent guilty pleas.	Judge, bailiff, attorney, clerical hours per case	Computer system, office equipment	Courtroom, court staff office space
Hear Motions	Elapsed time for motions, percent cases dismissed	Judge, bailiff, attorney, clerical hours per case	Computer system, office equipment	Courtroom, court staff office space, jury room
Conduct Trial				
Prepare Docket	Elapsed time for docket preparation.	Clerical hours per case	Computer system, office equipment	Courtroom, court staff office space
Select and Instruct Jury	Elapsed time for jury selection.	Judge, bailiff, attorney, clerical hours per case	Computer system, office equipment	Courtroom, court staff office space, jury room
Give Opening Statements	Elapsed time for statements.	Judge, bailiff, attorney, clerical hours per case	Computer system, office equipment	Courtroom, court staff office space, jury room
Call and Examine Witnesses	Elapsed time for examinations.	Judge, bailiff, attorney, clerical hours per case	Computer system, office equipment	Courtroom, court staff office space, jury room
Give Closing Statements	Elapsed time for statements.	Judge, bailiff, attorney, clerical hours per case	Computer system, office equipment	Courtroom, court staff office space, jury room
Send Case to Jury	Elapsed time for jury instructions.	Judge, bailiff, attorney, clerical hours per case	Computer system, office equipment	Courtroom, court staff office space, jury room
File and Conduct Appeal	Elapsed time before appeal hearing, percent decisions upheld.	Judge, bailiff, attorney, clerical hours per case	Computer system, office equipment	Courtroom, court staff office space

Table 2-8: Performance and Requirements Measures for Sentence, Diagnose and Refer, Impose Probation, Determine Action for Non-Compliance, and Impose Punitive Sanctions

Function	Performance Measures	Requirements Measures		
		Personnel	Equipment	Facilities
Sentence	Elapsed time to sentence, percent presentence investigation recommendations accepted, degree of compliance with sentencing guidelines.	Judge, bailiff, attorney, clerical hours per case	Computer system, office equipment	Courtroom, court staff office space
Diagnose and Refer				
Conduct Investigation	Elapsed time for PSI, percent essential items covered.	Probation officer, clerical hours per case	Computer system, office equipment	Probation office space
Refer Offender	Elapsed time to enroll in recommended program, percent offenders enrolling.	Probation officer, clerical hours per case	Computer system, office equipment	Probation office space
Prepare Investigation Report	Elapsed time to complete report.	Probation officer, clerical hours per case	Computer system, office equipment	Probation office space
Impose Probation				
Perform Treatment	Elapsed time for treatment, percent treatment completed, treatment effectiveness.	Treatment staff, clerical hours per case	Computer system, office equipment	Treatment facilities
Determine Action for Non-Compliance				
Notify Court of Probation Violation	Elapsed time to notify, percent offenders violating.	Probation officer, clerical hours per case	Computer system, office equipment	Probation office space
Notify Parties of Probation Violation Hearing	Elapsed time to notify.	Clerical hours per case	Computer system, office equipment	Court staff office space
Conduct Probation Violation Hearing	Elapsed time for hearing, percent violations upheld, percent probations terminated.	Probation officer, judge, bailiff, attorney, clerical hours per case	Computer system, office equipment	Courtroom, court staff office space
Impose Punitive Sanctions	Percent fine, jail, etc. fulfilled; time incapacitated	Corrections, probation, DMV hours per case	Computer system, office equipment	Jail space, DMV office space, probation staff space