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WHATEVER HAPPENED TO IMPLIED CONSENT? A SOUNDING*

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I. INTRODUCTION

A. *Statement of the Problem*

Efforts to control drunk driving have relied primarily upon the use of the criminal process. Driving while intoxicated is a crime in every state and a violation of city ordinance in most municipalities that attempt to regulate traffic. One assumption commonly expressed about criminal controls is that the effectiveness of criminal law as a means of control increases as the process becomes more efficient in the apprehension and conviction of those who violate the law. It has been felt that one of the problems in the enforcement of drunk-driving laws is the difficulty in obtaining convictions. A variety of chemical tests to determine the amount of alcohol in the blood are more reliable and more convincing evidence of intoxication than the unsupported testimony of an arresting officer concerning the driver's demeanor. The results of such tests are admissible in evidence in most jurisdictions. However, if a suspected drunk driver refuses to submit to a test, there is usually no method of acquiring this evidence without the use of force, an undesirable and possibly illegal alternative.[1]

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1. Schmerber v. California, 384 U.S. 757 (1966), while holding that the taking of a blood sample without consent in appropriate circumstances did not

To solve this dilemma, a number of states enacted what are popularly called "implied consent" laws. In general these laws provide that anyone possessing a license and operating a vehicle on the state highways has given tacit consent to being tested for blood-alcohol content should he ever be arrested for drunk driving. If the arrested driver refuses to submit to the test, a report of his refusal is made to the state licensing agency and his driver's license may be suspended or revoked. Thus, the implied consent law provides a means of compelling submission to a blood-alcohol test.

Implied consent laws are aimed at a reduction in the amount of drunk driving. They could reduce the incidence of drunk driving and deter potential offenders by increasing drunk-driving convictions and by forcing suspected drunk drivers who refuse tests to surrender their driving privileges.

If implied consent laws do, without disproportionate cost, aid in controlling drunk driving, then they can be very useful in improving highway safety. It is the aim of this study to discover whether evidence of the effects of implied consent laws can be obtained from existing records and, if so, to discover what the effects of the laws are.

B. *Approach*

It was decided to study the operation of an implied consent law in St. Louis, Missouri, where it was felt that the records systems would be readily accessible. Missouri enacted an implied consent law in October 1965 and is one of a group of midwestern states having such laws; it was thought that the Missouri experience with the law might be typical for a large portion of the United States. St. Louis is a large city and could be expected to provide a sufficient number of cases to be statistically reliable. Moreover, St. Louis is both a city and a county governmental unit; the geographical limits are the same for both state and city ordinance enforcement, and, most important, the law enforcement records are centrally maintained with only a single traffic law enforcement agency, the St. Louis Police Department.

Data was gathered from records kept in St. Louis, from the Department of Revenue in Jefferson City (the state capital), and from other sources where investigation showed it would be helpful. The Department of Revenue is the state agency which administers the suspension of licenses

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violate either the prohibitions against self-incrimination or illegal search and seizure, indicated that if the act were done in an unreasonable or offensive manner, it would violate the constitutional rights of the "donor."

under the Missouri implied consent law. The plan was to determine the effect of the implied consent law on the police, the prosecuting authorities, and the public by considering the effects of implied consent in the following areas:

1. The techniques of the police in handling drunk-driving cases.
2. The degree of police enforcement of drunk-driving laws.
3. The consequences of the police enforcement techniques on convictions, revocations of licenses, etc.
4. The public response to implied consent.

In each of these areas the following were considered:

a) The criteria that could be used to indicate response.
b) Whether information to measure these criteria was available.
c) Whether the data indicated any changes.
d) Whether the changes, if any, could be attributed to a particular cause.
e) Whether the changes noted were good or bad from the points of view of administrative convenience, prevention of undesirable consequences, and fairness to persons involved.

At the outset it was intended to limit the study to the St. Louis area and to use possibly some state-wide figures (such as those of the Highway Patrol) for general comparison purposes. However, while examining the files on license revocations made under the implied consent law in the Department of Revenue in Jefferson City, it was noted that Kansas City had far more revocations for refusal to consent to the test than did St. Louis. Further inquiry disclosed that the enforcement system in Kansas City differed significantly from that in St. Louis. It was then decided to expand the area under study to include Kansas City. With this additional information it would be possible to compare the effect of the implied consent law on two different systems of enforcement.

While Kansas City is a part of several counties, for all practical purposes it is under a single unified enforcement system. Nearly all of the drunk-driving arrests in Kansas City are made by the Kansas City Police Department, and nearly all the prosecutions are brought in the Kansas City Municipal Courts.

C. *Procedures*

Four students from the School of Law at the University of Missouri in Columbia were used as research assistants. During the summer of 1967,

they visited various offices—police, prosecutors, etc.—in St. Louis and Kansas City as well as the Department of Revenue and the Highway Patrol in Jefferson City. With the cooperation of the officials of these agencies, the student researchers acquired the information upon which the study is based.

D. *Analysis of the Law*

The Missouri Implied Consent Law. In 1963, in the 72nd General Assembly of Missouri, Senate Bill 76 was introduced. This bill proposed an implied consent law utilizing a blood test.[2] The bill, however, was easily defeated. During the same session the legislature revised the Missouri law punishing drunk driving. Prior to 1963, driving while intoxicated was a felony punishable by a maximum of five years' imprisonment;[3] the new law made driving while intoxicated a graded offense, with the first two offenses being misdemeanors, the third and subsequent offenses being felonies.[4] The reason most commonly given for this change was that, if conviction for driving while intoxicated was a felony on the first offense, there was difficulty in obtaining convictions, especially before a jury. After the 72nd session, a Joint Interim Committee, appointed to consider a general revision of all traffic laws, undertook to study the advisability of adopting an implied consent law. Sources of legislative history in Missouri are sparse, but from the Committee records it appears that the Committee did little more in the area of implied consent than to hold hearings. There is no evidence that they made any careful study into the effect of implied consent laws already in existence in other states or made any effort to obtain statistical data on the effectiveness of such laws.

From the evidence taken at the hearings held by this committee, most of the support for an implied consent law came from the Kansas City area. Kansas City had been using breath tests since about 1951, and according to the testimony of various police chiefs, the law was effective. Several judges from the Kansas City area testified that the law was needed. Many of these witnesses concluded that the use of an implied consent law would decrease drunk driving although none of them presented any data to support this conclusion. There was some support from the rest of the state, but most of the witnesses were from the Kansas City area. The Mis-

2. The sponsors were probably relying upon Breithaupt v. Abram, 58 N.M. 385, 271 P2d 827 (1954), aff'd 352 U.S. 432 (1957).

3. See § 564.440, and 564.460, RSMo 1959.

4. § 564.440, RSMo 1967 Supp.

souri Highway Patrol strongly backed the law, claiming that their traffic summaries showed a correlation between alcohol and traffic accidents. The St. Louis County Coroner and representatives of several insurance companies, also supported adoption of such a law.

In its final report the Joint Interim Committee recommended that an implied consent law be passed. The law recommended differs slightly from the bill, which had been patterned after the implied consent law of New York, that was introduced in the General Assembly. Although there was vigorous opposition, the bill passed without much significant debate.

The impression is that the law was considered by its supporters (and by a majority of the legislature) to be a "good thing" which would result in reducing drunk driving. There is no indication that there was any careful analysis of how the law was to accomplish this end. One legislator who was a strong supporter of the law became a little indignant when he was interviewed during this study and asked exactly how the law was going to be effective. His attitude was basically that it obviously was going to be so.

As stated earlier, the aim of an implied consent law is to control drunk driving. Its name comes from the statutory provision that any person operating a motor vehicle "shall be deemed to have given consent to . . . a chemical test of his breath for the purpose of determining the alcoholic content of his blood. . . ."[5] The "consent," of course, is fictional. What the law provides is a means of compelling submission to the test—the compulsion being the threat of license revocation for refusing.

There must be a valid arrest and reasonable grounds for the arresting officer to believe the driver is intoxicated.[6] After the arrest, the officer requests that the driver take the test. The officer is required to inform the driver of the reasons for the request and that refusal to submit may result in the revocation of his driver's license.[7] Thus, under the Missouri statute, the choice facing the arrested driver is either to submit to the test and provide the state with convincing evidence of the degree of his intoxication, or to refuse and lose his operator's license for one year.

The results of the chemical test are admissible in evidence and establish certain presumptions. If the test shows 0.05% or less "by weight of alcohol in his blood," the driver is presumed not to be intoxicated. If the test registers over 0.05% but less than 0.15%, then there is no presumption

5. § 564.441, RSMo 1967 Supp.
6. § 564.441, RSMo 1967 Supp.
7. § 564.444, RSMo 1967 Supp.

either of intoxication or of sobriety, but the evidence may be considered. If the test registers 0.15% or higher, this is "prima facie evidence that the person was intoxicated at the time the specimen was taken."[8]

There are other factors involved in this choice. One is the criminal laws of both the city and the state that prohibit drunk driving. Another is the Missouri Point Revocation Law. This law, originally passed in 1961, superseded a prior law which allowed revocation of a driver's license subsequent to a conviction for driving while intoxicated or for any felony involving a motor vehicle. The point system substituted for this law provides for assessment against a driver of points after conviction of traffic offenses. The number of points varies according to the offense; for instance, a drunk-driving conviction under state law carries 12 points, while a similar conviction under city ordinance carries only 6 points. Accumulation of a certain number of points in a set period results in suspension or revocation of the driver's license. If 12 points are accumulated in a 12-month period, the license is revoked for one year.[9] A conviction under state law for drunk driving will result in revocation of license; conviction under city ordinance will not, unless the individual has, from other convictions, accumulated additional points.

The law on the use of blood-alcohol tests in evidence prior to the implied consent law was not extensively litigated. Such evidence had been used and its use approved. The Missouri cases of *State v. Kelton* and *State v. Daugherty*[10] indicate that such evidence is admissible if the person consents to the test; without his consent there was doubt whether such evidence would be admissible.[11] One reason for the use of the implied consent fiction in these laws was to get around the possibility of an argument that taking the evidence without the consent of the individual would violate the privilege against self-incrimination. With *Schmerber v. California* as authority[12] it was relatively easy for the Missouri Supreme Court to uphold the constitutionality of the Missouri implied consent law.[13]

Schmerber indicated that under the proper circumstances no consent was needed to attempt to compel a test to determine blood-alcohol content.

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8. § 564.442, RSMo 1967 Supp.
9. § 402.304, RSMo 1967 Supp.
10. State v. Kelton, 299 S.W.2d 493 (Mo. 1957); State v. Daugherty, 320 S.W.2d 586 (Mo. 1959). Both of these cases involve manslaughter convictions. There were no reported cases dealing with the use of such evidence in the prosecution of drunk driving.
11. *See* State v. Matsinger, 180 S.W. 856 (Mo. 1915).
12. 384 U.S. 757 (1966).
13. *See* Blydenburg v. Davis, 413 S.W.2d 284 (Mo. 1967).

It therefore could be possible to have a law dispensing with the need for consent. However, there would still have to be an arrest and reasonable grounds to believe the person was driving while intoxicated and the test would have to be taken in a reasonable manner, which might be impossible if the driver were physically to attempt to prevent the test from being given. It is, however, paradoxical that the implied consent law takes its form from the fear that some fiction of consent was needed to avoid violation of the privilege against self-incrimination, and yet it is now clear there is no violation of self-incrimination involved in requiring a person to take the test.[14]

II. Effects of the Law: Arrest and Test Procedures

A. *Techniques of Police in Handling Drunk Driving Cases*

St. Louis processing of drunk driving cases differs from that of Kansas City. While in both cities the initial decision to instigate the process rests with the police officer, the procedure varies once the decision to arrest is made.

St. Louis. The St. Louis police follow what can be described as a centralized system of processing drunk-driving cases. The chemical test is administered in the central police headquarters where all drivers who consent to the test are brought for testing. The pattern for disposition following a drunk-driving arrest is that described earlier: the driver is informed of his option to take the test, the consequences of refusal, and that he will be booked on a state charge of driving while intoxicated. If the driver refuses to be tested, he is taken to an outlying District Station and booked. (He may also be taken to a hospital for examination for injuries.) If the driver consents to being tested, he will be taken by cruising patrol (a system of transporting persons arrested from the District Stations to the Central Police Headquarters) to the Prisoner Processing Division of the central headquarters where the test is administered. Normally if the test indicates less than 0.15%, the driver is not prosecuted for any drunk-driving offense (although he may be prosecuted for some other offense). If the test indi-

14. Implied consent laws have been commented on many times. *See, e.g.*, 1950 Wash. U. L. Q. 108, 1960 Wash. U. L. Q. 84, 9 St. L. U. L. J. 283 (1964), and 12 St. L. U. L. J. 287 (1967), all of which deal specifically with Missouri. *See generally* 51 Mich. L. Rev. 1195 (1953), commenting on the first implied consent law; Watts, *Some Observations on Police-Administered Tests for Intoxication*, 45 N. C. L. Rev. 34 (1966); Slough & Wilson, *Alcohol and the Motorist: Practical and Legal Problems of Chemical Testing*, 44 Minn. L. Rev. 673 (1960); 31 U. Chi. L. Rev. 603 (1964), and 1967 Utah L. Rev. 158.

cates 0.15% or higher, the police will try, and they usually succeed, to obtain a blood test in addition. It is felt that the blood test is more reliable than the breath test.

If the driver is to be charged with a drunk-driving offense (either upon refusal to submit to the test or upon failing the test), he will be booked. If he has refused to take the test, the officer will fill out the required affidavit and mail it to the Director of Revenue in Jefferson City.

The centralized St. Louis process requires the arresting officer to stay with the driver throughout the test procedures. A study made by the St. Louis police indicated that on the average a one-man patrol car *will be out of service for two hours and forty-two minutes* investigating and processing a drunk-driving case. This is, however, only the time the patrol car is out of service. The car may be returned to duty with another driver. The time involved for the arresting officer (including the time spent applying for warrants at the prosecutors' offices) was estimated to be *from five to eight hours*. While some of this time will involve investigation of the accident (if there was one), arranging for the removal of the driver's car, etc., a substantial portion of the time is taken by transporting the arrested driver to police headquarters and processing him there.

The next step is for the police officer to present his evidence (including the test results) to a prosecutor's office. The city prosecutor handles violations of city ordinances while the circuit prosecutor handles violations of state laws. The procedures for presenting drunk-driving cases to the prosecuting authorities underwent changes during the period under study; these changes will be discussed later. In general, the most recent procedure is for the police officer first to present the case to the circuit prosecutor. If the prosecutor decides to take the case, he will "issue the warrant," and the prosecution will be brought under state law. If the circuit prosecutor refuses to issue the warrant, the officer will then present the case to the city prosecutor for a decision on whether to prosecute. As a general practice, the circuit prosecutor will not prosecute any case where the test was not given or was given and showed less than 0.15%.

Thus, when the officer has decided to arrest a driver on a charge of drunk driving, he no longer controls the handling of that case. Once the driver is arrested, he is "frozen" into the system and the officer's discretion is very limited or nonexistent. The arresting officer's only control is with his initial discretion about whether to initiate the process.

Kansas City. The Kansas City process, by contrast, is a decentralized system. Blood-alcohol tests are administered in five districts throughout the

city. Upon arrest the officer will take the driver to one of these five district stations. The officer will give the necessary warnings. If the driver refuses to submit to the test, the required affidavit is filled out and mailed to the Director of Revenue in Jefferson City, and the driver is booked on a charge of drunk driving in violation of the city ordinance. It seems probable that no booking is made of consenting drivers until after the test is administered. One test machine operator reported from his observations that any test showing 0.10% or higher will result in charging. A test result of less than 0.10% is "passing," and no charges are brought. It is likely that many of the names of those who "pass" the test never appear as an arrest on any record. No studies have been made in Kansas City as to the time involved in processing a drunk-driving case, but officers there estimated it would take approximately one and a half to two hours.

Once the decision to charge has been made, the process in Kansas City is still handled by the police in the same manner as any other serious traffic violation. There is no formal application to the prosecutor's office, as in St. Louis. Nearly all charges are brought under the city ordinance, and it is rare for state prosecution to be considered. The officer is responsible for bringing the case to court, which includes obtaining witnesses, if there are any. It is quite normal for the first contact with the city prosecutor's office to be in court.

Thus the arresting officer in Kansas City has more control over the disposition of a drunk-driving case than the St. Louis officer. He must make the same initial decisions about arrest but, unlike the St. Louis officer, he can decide, once the test is administered, whether the case should go forward or be dropped. The arrested driver is not "frozen" in the system until after he refuses the test or has taken the test. The officer can use the test results to decide whether to continue the criminal process, and once he has decided to proceed he is not dependent upon a further decision by the prosecutor.

B. *Criteria To Indicate Changes in Police Technique of Handling Drunk-Driving Cases*

In both Kansas City and St. Louis tests to determine blood-alcohol content had been used prior to the implied consent law. The number of tests, both absolutely and in relation to the number of arrests, gives some indication of whether the law had an effect on police techniques of handling a drunk-driving case. The implied consent law provided the threat of license revocation to compel the arrested driver to submit to the test; prior

to the law, only persuasion could be lawfully used to obtain consent to the test. The law thus could change the pressure the police used to obtain consent and also the attitude of the police in using pressure to obtain consent to the test. To compare the pressure used, some indication of the tactics used to obtain consent prior to the law is needed.

C. *Data To Measure the Criteria*

Information indicating the number of drunk arrests and the number and results of blood-alcohol tests are kept by both the St. Louis and Kansas City police departments. In St. Louis the test results are kept in a log book, and the information on the tests was obtained by manual count from this log book. When the implied consent law went into effect in the fall of 1965, the St. Louis Police Department was using a balloon-type testing device. The law required the testing machine to be approved by the State Division of Health, and this balloon-type device was not approved. The St. Louis police department did not obtain an approved device and operator until January 1966, and thus the implied consent law was not actually in operation in St. Louis until then. Table I shows the number of tests administered by the St. Louis police.

TABLE I

Tests for Blood-alcohol Given by St. Louis Police Department

St. Louis
No. of Tests Given

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	31	15	18	16	21	10	13	14	12	20	9	18	197
1965	9	11	14	16	9	9	16	16	22	21	30	28	201
1966	*49	63	48	62	46	39	37	37	45	42	46	46	560
1967	49	47	40	40	43	21	26	25	19	26	20	35	391

*10 tests in January 1966 were of the old balloon type. After this all tests were on an intoximeter approved by the State Division of Health.

In Kansas City the police had been using a breath-test machine of the type later approved by the State Division of Health so the implied consent law became effective there in October 1965. Table II shows the number of tests administered by the Kansas City Police.

In both cities studied records are kept of each test administered. By manual counting of these records the number of tests given was determined.

TABLE II

Tests for Blood-alcohol Given by Kansas City Police Department

No. Kansas City of Tests Given

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	79	118	116	120	103	98	71	98	92	100	67	86	1148
1965	104	67	68	77	75	77	73	80	77	111	115	150	1074
1966	170	123	167	191	161	127	130	118	142	156	157	181	1823
1967	189	157	196	158	244	144	117	103	136	150	158	219	1971

The increase in the number of tests given after the effective date of the implied consent law could have been the result of more drunk-driving arrests and not necessarily indicate a change in police techniques in handling drunk-driving cases. It is therefore necessary to compare the number of tests given with the number of drunk-driving arrests made. Both St. Louis and Kansas City use computers for their police records. We requested and received monthly drunk-driving arrest totals for 1964 through 1967. It was apparent, however, that these records contained serious inaccuracies.

In St. Louis in 1965 a change was made in the computer program and the drunk-driving arrests were not reprogrammed correctly. The error was obvious, since, according to the computer, there were only three such arrests during the last nine months of 1965. To obtain reliable figures, the student researchers made a manual count of drunk-driving arrests from the Daily Arrest Register for 1965.

The St. Louis computer figures for 1966 and 1967 also proved unreliable. Because of changes in the handling of drunk-driving prosecutions by the city and circuit prosecutors' offices, the police began issuing "double summons"; that is, in most instances of drunk-driving arrest the officer would charge twice, once for a violation of city ordinance and once for a violation of state law. This practice occurred for approximately the last half of 1966 and the first half of 1967 when the practice was discontinued. To correct these deficiencies, the St. Louis Computer Center ran a new program for 1966 and 1967 which reflected the number of persons charged with drunk driving. It is believed these arrest figures are the best obtainable. The St. Louis arrest figures are shown in Table III.

The Kansas City arrest figures also disclosed inaccuracies. The figures for 1964 showed an average of 199 arrests per month for the first eleven months. The arrests for December 1964 were recorded at 640. The explanation for the apparent sudden increase in arrests was that, in programming

the computer during 1964, some arrests were not entered. These were lumped together and put in the December total. The yearly total is correct, but the monthly totals for 1964 are inaccurate.

TABLE III

Arrests on Driving While Intoxicated Charge

St. Louis
No. of Arrests

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	85	88	73	71	79	45	65	61	57	73	47	75	819
1965	75	61	58	68	72	63	68	84	97	71	77	104	898
1966	72	97	78	96	68	61	64	68	71	90	83	77	925
1967	79	67	76	70	81	41	50	47	37	45	36	64	693

TABLE IV

Arrests on Driving While Intoxicated (DWI) Charges

Kansas City
No. of Arrests

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964*	82	107	221	333	171	261	205	196	153	249	209	640	2827
1965	99	160	138	210	140	164	193	139	224	191	153	426	2237
1966	211	166	218	210	182	145	175	141	207	224	180	282	2341
1967	248	222	250	209	226	184	166	173	189	202	201	290	2560

*The 1964 figures are not correct for monthly totals. To correct for mistakes made in programming (mistakes discovered in late 1964), all arrests which had been overlooked were placed in December total. The yearly total is assumed to be correct.

The drunk-driving arrest figures for 1965, 1966, and 1967 are reported to be correct. There are indications that some of the arrest figures may not be accurate reflections of the number of arrests made. In 1965, the average monthly arrests for the first eleven months was 165. The arrests indicated for December 1965 are 426, indicating the possibility that again arrest figures from earlier months were placed in the December totals. This, however, could not be verified. The Kansas City arrest figures are shown in Table IV.

The Kansas City figures also indicate that during several months the number of persons submitting to the test and those refusing to submit were greater than the number arrested. Technically, this is impossible since an arrest is a prerequisite to a test. The most logical explanation (other than questioning the reliability of the monthly totals of drunk-driving arrests)

is that those persons who submitted to the test and who "passed" were never recorded as having been arrested and thus do not appear in the drunk-driving arrest total.

It is difficult to obtain information about the pressures that police put on individuals to take the test before the implied consent law was passed. Such information could have been acquired by extensive interviewing of police officers, but such interviews were beyond the scope of this study. Some information was obtained through informal conversation with police officers.

D. *Change*

In both St. Louis and Kansas City there was an increased use of the chemical test after the implied consent law. In the two-year period from January 1964 through December 1965, the St. Louis police averaged slightly more than 16 tests per month.

For the two-year period 1966 and 1967, after the approved testing equipment was installed, the St. Louis monthly average was 39.6 tests. The increase was large in 1966, with a monthly average of 46.7 tests. This rate of testing continued for the first five months of 1967 (monthly average 43.8 tests), and then the number of tests dropped sharply in the last seven months of 1967, averaging only 24.6 tests a month. This drop corresponded to the sudden simultaneous drop in the number of persons arrested in St. Louis for drunk-driving offenses. The increase in the number of tests after January 1966 is due in part to the increase in the number of persons arrested for drunk driving, as this provided more individuals who could be asked to submit to the test. However, the percentage of tests given also rose sharply after the implied consent law. In the two-year period from January 1964 through December 1965, 23.2% of the drivers arrested for drunk-driving offenses took a blood-alcohol test. In January 1966 the percentage tested rose to 68.1% and the percentage tested remained over 60% through June 1966. After June 1966, the percentage varied between 46.7% and 70.1%. For the two-year period, 1966 and 1967, the percentage tested was 58.8%. Even after the drop in mid-1967 in the number of arrests and tests, the percentage of those tested remained fairly constant at slightly more than 50%.

Kansas City also shows an increase. In the period January 1964 through September 1965, Kansas City police averaged 88 tests per month. From October 1965 through December 1967 Kansas City averaged 154 tests per

month. The percentage of drivers tested also shows an increase. From January 1964 through September 1965, 43% of drivers arrested were tested; from October 1965 through December 1967, 73.5% of drivers arrested were tested. While there was variation from month to month, the over-all *upward* trend seems to hold for the period from the effective date of the law to the end of the study. Thus in both cities there was a greater use of blood-alcohol test after the implied consent law than before.

The arrest and test figures indicate a substantial difference between the two cities. Although both show an increase in testing after the implied consent law, Kansas City has far more arrests and tests than does St. Louis. Prior to the implied consent law, Kansas City averaged 204 arrests and 88 tests per month, while St. Louis averaged 71.5 arrests and 16 tests per month. After the implied consent law, Kansas City averaged 210 arrests and 154 tests per month while St. Louis averaged 67 arrests and 39.6 tests per month. As mentioned, St. Louis showed a sharp drop in arrests and tests in the last seven months of 1967. For the first 17 months after the implied consent law, St. Louis averaged 82 arrests and 45 tests per month. For the last seven months of 1967 St. Louis averaged only 45.7 arrests and 24.6 tests per month. It is true that the Kansas City arrest figures are subject to question, but only because there is reason to believe they may be *lower* than the actual number arrested. These differences indicate that the Kansas City police follow a more aggressive system of enforcement of drunk-driving laws than do the St. Louis police. It could also mean that there is just a great deal more drunk driving in Kansas City than in St. Louis; however, as will be discussed later, this does not seem a likely explanation of the vast differences noted.

A comparison of arrests to tests and refusals indicates the difference between enforcement in Kansas City and St. Louis. The refusals reported to the Director of Revenue in Jefferson City are shown in Table V. In 1966 in Kansas City (after the implied consent law was in operation), there were 2,341 drunk-driving arrests (according to police records), and 1,823 individuals submitted to testing. According to the records of the Department of Revenue, the Kansas City police sent in (during the same period) notices of refusal by 712 persons. The 712 refusals plus the 1,823 consenters total 2,535, which is 194 more than were arrested. As mentioned before, a possible explanation is that those who "passed" the test never appeared in the arrest total. The figures for the first five months of 1967 indicate that the Kansas City pattern continues.

In St. Louis, however, the pattern is different. In 1966 (excluding

TABLE V

No. Refusing to Consent to Test Resulting in Revocation (By Date of Arrest)

	J	F	M	A	M	J	J	A	S	O	N	D	Total
St. Louis													
1965										0	0	1	1
1966	19	31	25	34	21	17	15	18	17	44	36	30	307
1967	26	22	32	29	39								148
Kansas City													
1965										32	67	54	153
1966	60	61	61	62	58	59	50	49	55	67	51	79	712
1967	80	71	59	70	71								351

January when the police were not using an approved testing device and thus were not entitled under the law to report refusals) there were 853 arrests. Of these, 511 consented to be tested. The Department of Revenue records indicate 288 refusals. The 288 refusals plus the 511 consenters total 799, resulting in 54 persons arrested who neither consented nor refused. Most, if not all of these missing persons, can be explained as persons arrested who could not be tested, either because they were badly injured, unconscious, or were not brought to the testing center until after an extended delay, which made the giving of the test inadvisable.

While the St. Louis figures balance out much better than the Kansas City figures—in St. Louis, the number of tests plus the number of refusals almost equal the number of persons arrested—this may be due to adjustments of the arrest figures in St. Louis. The first figures obtained from the computers in St. Louis were obviously inaccurate for the years 1965, 1966, and 1967, and new programs had to be run. As late as June 1968, errors were discovered in the 1966 figures and a revised 1966 arrest figure was provided. It may be that some of the corrections were the result of trying to get the figures to balance. The Kansas City figures contain admittedly inaccurate monthly totals for 1964 and possibly 1965, and there has been no attempt in that city to obtain more nearly correct figures.

The results obtained from the tests given in these two cities indicate significant differences. Taking the periods after the implied consent law became effective (October 1965 for Kansas City, January 1966 for St. Louis) through May 1967, the following results were obtained in the tests.

Blood-Alcohol Content

	St. Louis		Kansas City	
	No.	%	No.*	%
0.00-0.04%	6	.8	119	3.8
0.05-0.14%	19	2.5	820	26.3
0.15% and over	737	96.7	2,117	69.9
Total	762	100.0	3,116	100.0

*Excludes 27 tests for which no result was shown.

For comparison purposes, results of tests administered by the Highway Patrol for 1966 and 1967 are presented here.

Blood Alcohol Content

	No.	%
0.00-0.04%	88	1.0
0.05-0.14%	1,885	22.2
0.15% and over	6,530	76.8
Total	8,503	100.0

The implication is that the St. Louis police bring in for testing (i.e., arrest for drunk driving) only those persons who are very drunk. This was borne out by a St. Louis police officer who commented with pride on the ability of the St. Louis police to pick out those who will "fail" the test by scoring higher than 0.15%. The Kansas City police (and the Highway Patrol) arrest a greater sample of the drunk-driving population (and of the general driving population) as indicated by the percent of scoring less than 0.15%. Several factors contribute to this difference. One may be a difference in attitude toward the enforcement of drunk-driving laws. Another is the difference in the "pass-fail" line as far as the test is concerned. In St. Louis, due in part to the decisions of the prosecuting authorities, the police consider the failure mark for the test to be 0.15%, while in Kansas City the failure mark may be at the lower level of 0.10%. While there is no hard and fast rule in Kansas City as to the failure mark, the feeling expressed there is that if the driver scores 0.10% or higher and appears drunk, he will be prosecuted for drunk driving. The decision of whether he is to be prosecuted for drunk driving is largely determined by the arresting officer who is not required to make that decision until after he has the results of

the test. The officer is encouraged by this system to arrest in a marginal case and use the test as an aid in exercising his discretion to institute a prosecution. In St. Louis the higher failure line encourages arrests only when the driver appears very drunk. But once the officer has made the arrest, he does not have the discretion to decide whether to institute a prosecution. That decision is made by the breath-test machine and the prosecutors. If the driver is arrested and takes the test and scores less than 0.15%, then the arresting officer has, in a sense, made a mistake. If, however, the test score is 0.15% or higher, the officer has made a good arrest. However, the officer must make his decision not knowing what the test score will be. This encourages arrest only in sure cases and discourages arrests in marginal cases. The difference in test scores indicates that in Kansas City the tests is used as a screening device—separating the possibly drunk (0.05-0.15%) from the very drunk—which the officer uses to determine who is to be officially arrested and who is not. In St. Louis the test becomes a means of second-guessing the effectiveness of the officer's judgment in making the arrest; and while the test in St. Louis "screens" in the sense that persons who pass the test will be released, the test does not help the arresting officer in determining who is drunk and who is not. He must base his decision to arrest solely upon his observations at the scene of the arrest.

Immediately after the implied consent law became effective in St. Louis there was a slight increase in the number of arrests made. However, the test results indicate that the St. Louis police were still arresting only the very drunk. The increase in the number of arrests may have indicated more police activity in that period, but the activity is still selective as far as arrests are concerned. The sharp drop in arrests in the last seven months of 1967 has no discernable connection with the implied consent law, as there is no great change in the percentage of drivers submitting to the test or in the percentage failing the test.

In Kansas City, the number of drivers arrested has steadily increased from 1965 through 1967. (The arrests for 1964 are higher than any of the next three years, but the arrest figures for 1964 are of questionable accuracy.) Compared to St. Louis, the arrest rate for drunk driving in Kansas City was high before the implied consent law and it continues high after the law. Prior to the law, Kansas City arrests were 2.77 times those in St. Louis, and after the law the Kansas City arrests were 3.13 times those in St. Louis. If only the period before the drop in St. Louis arrests is considered, the Kansas City arrests are 2.60 times those in St. Louis.

E. *Accounting for the Change*

The only change in policing technique, apart from new testing devices in St. Louis, is that in both Kansas City and St. Louis more people are tested with the implied consent law than without it. The same change occurs in both the high enforcement system and the low enforcement system. Clearly the implied consent law effected this change. It is difficult to apportion the change between the coercive aspects of the implied consent law and the change in police morale which might have made the police more interested in obtaining consent to the test. It seems clear that the threat of license revocation was a more effective means of obtaining consent of the arrested driver than the means of persuasion used before the implied consent law.

F. *Evaluation*

In Kansas City decentralized testing makes it possible for the officer to use the results of the test to exercise his discretion to proceed. In St. Louis centralized testing reduces the officer's discretion and thus may reduce the number of persons arrested and tested. Centralized testing also takes time. This discourages arrests, and means the driver arrested must have been very drunk to have tested out over 0.15% at a later time. Furthermore, centralized testing "freezes" the arrested person into an arrest statistic, which in turn contributes to making police officers conservative about making arrests, except in the clearest cases. The prosecutors' policies in St. Louis also reduce police incentive (discussed *infra*).

If the intoximeter is a better screening device than the observations of the officer, and this much is clear, then Kansas City has a better screening system than St. Louis. If it is desirable to encourage arrests of more drunk drivers—even at the cost of necessarily arresting a few nondrunk drivers in the process—then the Kansas City pattern is preferable as it encourages arrests in marginal cases still leaving the officer the discretion to release those arrested after the test results are known.

The results in Kansas City and St. Louis do indicate a positive benefit of the implied consent law: One of the purposes of the law is to increase the number of tests for blood-alcohol content, and it does that in both systems.

III. The Degree of Police Enforcement

A. *The Measure of Enforcement*

The most obvious measure of enforcement of drunk-driving laws is the number of persons arrested for that crime. But the number of drunk

driving arrests alone does not indicate the rate of enforcement, what is needed in addition is the ratio of arrests to the total number of persons committing the crime of driving while intoxicated. Arrest figures are available, but as indicated above, they are not entirely reliable. Furthermore, there are stops made by police which do not show up in the arrest figures. These "stops short of arrest" may be interpreted as a means of enforcing the drunk-driving laws by warning individuals rather than arresting and prosecuting them. As a measure of enforcement, the arrest figures do not reflect "guilty" drivers who were merely warned, but do include a number of "innocent" drivers who were arrested but who should not have been.

The number of persons who drive while intoxicated is not known. However, comparing drunk-driving arrests with other measures gives some indication of the rate of enforcement if these other measures vary with the amount of drunk driving. For example, population could be one such variable. In the four years, 1964 through 1967, the Kansas City police arrested well over twice the number of drivers as did the St. Louis police. Yet, the population of Kansas City (475,539 by the 1960 census) is a little more than half (63%) of the population of St. Louis (750,026 by the 1960 census). Adjusting drunk-driving arrests by population shows an arrest rate in Kansas City that is 4.71 times the drunk-driving arrest rate in St. Louis.

Drunk-driving Arrests per 1000 Population

	St. Louis	Kansas City	Ratio K.C./St.L.
1964	1.09	5.94	5.45
1965	1.20	4.70	3.92
1966	1.23	4.92	4.00
1967	0.92	5.38	5.85
Average	1.21	5.23	4.71

Since these ratios are based on the 1960 census figures, and do not take into account any changes in population during the period, they do not accurately reflect changes in enforcement for the four-year period.

A comparison of arrests with the automobile population of the two cities shows an even greater disparity in arrests. The automobile population of St. Louis is more than twice that of Kansas City.

Passenger Cars in Operation as of July 1*

	St. Louis	Kansas City	Ratio K.C./St.L.
1964	450,512	204,015	0.453
1965	495,884	225,127	0.454
1966	502,275	230,665	0.459

(*Automobile population figures supplied by R. H. Polk & Co., Detroit, Michigan)

Drunk-driving Arrests per 1000 Passenger Cars

	St. Louis	Kansas City	Ratio K.C./St.L.
1964	1.82	13.26	7.61
1965	1.81	9.94	5.49
1966	1.84	10.15	5.52
Average	1.82	11.32	6.22

On this basis the arrest rate in Kansas City is 6.22 times that in St. Louis.

The reliability of these figures as an indication of the enforcement rate in the two cities depends upon the assumption that drunk driving varies directly in proportion to population of people and cars. It may well be that the driving (and drinking) habits are different in Kansas City and St. Louis. Driving conditions in the two cities are quite different. St. Louis is a compact city with a high density population; Kansas City has its highly populated areas and its areas of congested traffic, but compared to St. Louis it is a sprawling city, encompassing in its boundaries areas that would be considered suburbs in St. Louis. St. Louis is hemmed in on the east by the Mississippi River and the state boundary and on the other three sides by St. Louis County and has not been able to expand and incorporate surrounding areas as has Kansas City. Comparing arrests per square mile results in St. Louis having a higher arrest rate for drunk driving than Kansas City, with the arrest rate in Kansas City being slightly more than half that of St. Louis (0.576).

Arrests for Drunk Driving per Square Mile

	St. Louis (61 Sq. Mi.)	Kansas City (316 Sq. Mi.)	Ratio K.C./St.L.
1964	13.43	8.95	0.666
1965	14.73	7.08	0.481
1966	15.16	7.41	0.489
1967	11.36	8.10	0.713
Average	13.67	7.88	0.576

While these comparisons of arrests with population and area give some indication of the enforcement rate, they are clearly insufficient for anything but generalizations.

At the beginning of this study it was hoped that use of the number of accidents which involved drinking would provide an indicator of the amount of drunk driving. The assumption was that the police report of accidents would not be as dependent upon police discretion as arrests. The accident form used by both St. Louis and Kansas City police contains an entry for "contributing circumstances," which includes "had been drinking." However, it soon became clear that this entry was worthless as an indicator of how many accidents involved a drinking driver.

The figures for St. Louis indicated that drinking was involved in only 2.52% of all automobile accidents, and there was very little difference throughout the period being studied. Kansas City showed a slightly different pattern with drinking involved in 3.57% of the accidents, with a low of 2.35% in 1966 and a high of 4.85% in 1964. If these figures were correct, it would mean that drinking was not very seriously connected with automobile accidents in St. Louis and Kansas City, a conclusion that is contrary to expectations and common sense. Investigation showed that the entry "had been drinking" acquired a special meaning for the police in filling out accident forms. In St. Louis the officers were instructed that, if they checked "had been drinking" as a contributing circumstance in the accident, then they should charge the driver with a drunk-driving offense. The entry "had been drinking" is not a description of a circumstance surrounding the accident but rather an indication that the officer will charge the driver with drunk driving.

The Kansas City figures show a slightly different pattern. In 1964, according to police records, 4.85% of all accidents involved drinking; that is, the entry "had been drinking" was checked. In 1965 this fell to 2.63%, not because of any improvement in the driving habits in Kansas City, but because the police adopted the policy of not checking "had been drinking" unless they were going to charge the driver with drunk driving. In 1964, when the "had been drinking" entry could be made without a decision to charge the driver with drunk driving, there was no consistent policy in making the entry, and, although the number of such entries is higher in 1964, there is no reason to believe it is an accurate indication of the number of accidents which involved drinking.

Other possible ways to indicate the degree of enforcement are to com-

pare drunk arrests with accident figures and traffic fatalities. Comparing arrests with accidents shows as follows:

Arrests per 100 Accidents

	St. Louis	Kansas City	Ratio K.C./St.L.
1964	4.35	13.32	3.06
1965	4.32	9.87	2.28
1966	4.33	10.13	2.34
1967	3.00	11.81	3.94
All Years Average	3.97	11.24	2.83

On this basis, the arrest rate in Kansas City is 2.83 times that of St. Louis.

It is logical to assume that drunk driving would be involved to a higher degree in single car accidents than in all accidents. Comparing arrests to single car accidents show the following:

Arrests per 10 Single Car Accidents
(Does not include collision with parked car)

	St. Louis	Kansas City	Ratio K.C./St.L.
1964	4.42	14.75	3.34
1965	4.58	10.73	2.34
1966	4.26	9.87	2.32
1967	2.88	11.54	4.01
All Years Average	3.97	11.60	2.92

By this comparison, the arrest rate for drunk driving in single car accidents in Kansas City is 2.92 times that of St. Louis.

Using fatalities as the measure of enforcement, the results are:

Arrests per Automobile Accident Fatality
(Number of Fatalities in Parentheses)

	St. Louis	Kansas City	Ratio K.C./St.L.
1964	(86) 9.52	(88) 32.12	3.37
1965	(107) 8.39	(68) 32.90	3.92
1966	(93) 9.95	(108) 21.68	2.18
1967	(106) 6.54	(86) 29.77	4.55
Total	8.51	28.47	3.35

Using this standard, the Kansas City enforcement rate is 3.35 times that of St. Louis.

However, as indicated earlier, the traffic conditions are different in St. Louis from those in Kansas City and, as might be expected, St. Louis has a larger percentage of pedestrian fatalities than Kansas City. When pedestrian fatalities are removed from the total number of fatalities, the results are:

Arrests per Nonpedestrian Automobile Fatality
(Number of Fatalities in Parentheses)

	St. Louis	Kansas City	Ratio K.C./St.L.
1964	(44) 18.61	(71) 39.82	2.14
1965	(53) 16.94	(50) 44.74	2.64
1966	(57) 16.23	(82) 28.55	1.76
1967	(47) 14.74	(64) 40.00	2.71
Total	16.59	37.32	2.25

With the fatality figures adjusted to remove pedestrian fatalities, the Kansas City enforcement rate is 2.25 times that of St. Louis.

Since there is no precise measure of the amount of drunk driving that takes place, the use of other measures to combine with the drunk arrest figures can only give a rough indication of the enforcement rate. However, the figures do indicate that Kansas City has a higher enforcement rate than St. Louis. Using the criteria of population, area, automobile population, accidents, single car accidents, traffic fatalities, and nonpedestrian fatalities, the results show that, in every instance except that of area, Kansas City's arrest rate is at least twice as high as St. Louis.

The classification of Kansas City as an area of "high enforcement" or "aggressive enforcement" and St. Louis as an area of "low enforcement" or "conservative enforcement" is not meant as either praise or criticism. While there are certain factors which may encourage Kansas City police to arrest and discourage police from arresting in St. Louis, the difference may be just the choice of application of manpower to traffic control or to other police ends (control of "crime in the streets," improving relations with minority groups, etc.).

B. *The Measure of Degree of Police Enforcement*

We have discussed the criteria that can be used to determine the degree of police enforcement and the reliability of those measures. With the exception of the population, area, and automobile population figures, all are dependent upon police reporting and record-keeping procedures. The prob-

lem of arrest figures has already been discussed. The St. Louis figures, it is believed, have been corrected and accurately reflect the arrests as reported by the individual police. The Kansas City figures have not been corrected, and it is believed in particular the 1964 figures may not be accurate.

The problem presented by accident statistics is different. The police do not have the same discretion in making an accident report as they do with making an arrest. They may stop and warn a motorist and never report the incident as an arrest. If they are called to investigate an accident, they are supposed to (and usually do) make an accident report. The number of accidents reported is probably an accurate figure. However, the details of the accident which are entered upon the accident report form may not be accurate, as in the case of the entry "had been drinking." This information could be very valuable in estimating the amount of drunk driving as well as the effectiveness of any campaign to control drunk driving. But to be accurate, that is, to reflect the policeman's judgment as to whether or not there was drinking involved, the police must be forced to make an entry concerning drinking for every accident. As long as the policeman has a choice whether to enter "had been drinking" or making no entry, the "no entry" will include instances where the officer believed drinking was involved. And, as happened in both St. Louis and Kansas City, when the entry "had been drinking" acquires a special meaning of "will charge with drunk driving," the no entry will include even more cases where the officer believes drinking was involved.

The Missouri Highway Patrol accident report has a category "Driver's Condition—Drinking" and requires an entry to indicate:

1. Had not been drinking
2. Had been drinking—obviously drunk
3. Same—ability impaired
4. Same—ability not impaired
5. Same—not known whether impaired

Their records for the period 1964 through 1967 indicated that accidents involving drinking to some degree ranged from 13.75% to 15.36%. This entry is dependent upon the officer's judgment and may not be an accurate measure of the amount of accidents involving drinking, but it does indicate that the St. Louis and Kansas City accident reports grossly under-report the number of accidents in which drinking is involved.

The figures showing the total number of accidents are taken from com-

puterized police statistics of their monthly reports. It is believed that these figures accurately reflect the number of accidents investigated by the police. The figures showing single car accidents are not as reliable. These figures were obtained from the accident report entries entitled, "Collision of Motor Vehicle with . . . fixed object, other object, overturned, ran off road, and other non-collision." These figures do not include collision with a parked car, since there was no such entry on the St. Louis accident form. Although the "single car accident" figure is some indication of single car accidents, it does not reflect all accidents in which only one driver was involved.

The fatality figures are reliable to a point. There is no doubt that the record of fatalities is an important one, and the significance of the event is an incentive for the police to keep accurate records. However, for any period there is a problem of adjustment to cover persons who die several months after an accident. The fatality figures for any period may be short these "late deaths." Usually the "late" fatalities are picked up and yearly records corrected to reflect them; however, in some instances the monthly totals do not reflect them.

The basic difficulty with any measure of enforcement is that there is no way of knowing how many drivers are driving while intoxicated, and without this information a precise measure of enforcement is not possible. We can but use the measures available and estimate the effects of the implied consent law.

C. *Changes in the Degree of Enforcement*

St. Louis. The raw number of arrests in this city following the effective date (January 1966) of implied consent indicates the possibility of a slight increase in arrests immediately following the passage of the law but shows a tapering-off soon after to an arrest total similar to the period before the law. (See Table III.) In 1964, the monthly average of arrests was 68.25; in 1965, this rose to 74.08; and in 1966 (after implied consent), it increased to 77.08. However, during the first four months after the implied consent law became effective in St. Louis, the average monthly arrests totaled 85.75. In the next 13 months (May 1966 through May 1967) the monthly average was 73.46. In June 1967, there was a sharp drop in arrests, and this continued throughout the remainder of that year. For the last seven months of 1967 the arrests averaged only 45.7 per month. Whatever the reasons for this sudden drop, it was not likely that they had any connection with the implied consent law. In any event, the only immediate effect of the implied consent law was the slight increase in the number of arrests immediately

after its enactment, but this was not necessarily due to the passage of the implied consent law. The last four months of 1965 also showed an increase in drunk arrests as compared with the preceding years, and the monthly arrest average for the last four months of 1965 was slightly higher than the first four months of 1966 (87.25 to 85.75).

Moreover, changes in the number of arrests would not necessarily indicate any change in the degree of enforcement. Comparing arrests with other measures gives a better picture of any change in the degree of enforcement. Since the population and area figures used to illustrate the different enforcement patterns in St. Louis and Kansas City were the same for all years being studied, a comparison of arrests by years to those other measures would show the same changes as in the number of arrests.

Comparing arrests with automobile population shows very little change in the arrest rate. In the two years before the implied consent law, St. Louis had an average of 1.82 arrests per 1000 passenger cars with no difference by year. The year after implied consent, this rate was 1.84. Both the number of automobiles and the number of arrests increased in the period from 1964 to 1966, but the ratio of the two remained almost constant.

The number of arrests in the first four months after the implied consent law indicate a possible increase immediately after the law became effective. There were more arrests in the January-April period of 1966 than in any of the other years. However, a comparison of arrests with the automobile population indicates the change was slight.

St. Louis	No. of Arrests	Arrests per 1000 Cars
1964 Jan.-April	317	.7036
1965 Jan.-April	262	.5283
1966 Jan.-April	343	.6829
1967 Jan.-April	292	.5813*

*Based on July 1, 1966 automobile population.

While the arrest rate per automobile population was higher during this period of 1966 than in the preceding or subsequent year, the arrest rate for 1964 was slightly higher indicating that changes in arrest rate may have been due to something other than the implied consent law.

The ratio of arrests to accidents and single car accidents provides a method of estimating changes in the enforcement rate on a monthly basis. This ratio is shown in Table VI and in Chart A. This ratio showed an increase in enforcement after January 1966, followed by a drop to a level

similar to most of 1964 and 1965, and then a very sharp drop in June 1967 and a low level of enforcement for the remainder of 1967.

The changes in the number of arrests and the ratio of arrests to other measures are undoubtedly due to a number of causes. It is reasonable to assume the implied consent law is related to the increase in enforcement after that law became effective, even though that increase also appears to be a continuation of a trend of increased enforcement beginning in mid-to-late 1965. However, whatever effect the implied consent law had on the enforcement rate, it was not a lasting effect, as the enforcement rate dropped to pre-implied consent levels and further. There is no reason to believe the implied consent law resulted in a drop in the enforcement rate. This drop, as was stated before, is due to other causes.

TABLE VI

Arrests per 100 Reported Accidents

St. Louis

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	6.42	6.54	4.77	4.89	4.96	2.86	3.88	3.76	3.61	4.45	2.99	3.91	4.35
1965	4.42	3.92	3.95	4.50	3.48	3.98	4.08	4.63	5.18	4.24	4.57	4.79	4.32
1966	4.59	6.28	5.22	5.00	3.72	3.60	3.42	3.89	3.83	4.66	4.35	3.78	4.33
1967	4.51	4.53	4.23	3.60	3.70	2.19	2.56	2.50	1.96	2.06	2.02	2.71	3.00

Arrests per 10 Single Car Accidents

St. Louis

1964	6.03	6.20	5.18	4.44	4.76	2.59	4.28	3.24	4.52	5.18	3.31	4.17	4.42
1965	4.17	4.42	3.82	4.76	3.67	4.77	3.95	5.42	5.67	4.38	4.50	5.50	4.58
1966	4.23	7.18	5.73	4.78	4.07	3.88	3.74	3.72	3.33	4.13	4.26	3.44	4.26
1967	3.93	3.53	3.42	4.22	3.43	2.33	2.41	2.64	1.96	2.22	2.17	2.34	2.88

A comparison of arrests for drunk driving with automobile accident fatalities shows a similar pattern but with greater month-to-month variation. (See Chart B) While automobile accident fatalities may have a closer relation to drunk driving than any other accident statistic, the small number of fatalities per month makes useful comparison difficult.[15] A change in the number of fatalities can be due to a number of factors other than to a reduction in the amount of drunk driving. A single multiple death accident can result in doubling the fatalities for a given month, and conversely the

15. *See* Haddon and Bradess, *Alcohol in the Single Vehicle Fatal Accident, Experience of Westchester County, New York,* reprinted in HADDON, SUCHMAN AND KLEIN, ACCIDENT RESEARCH (1964).

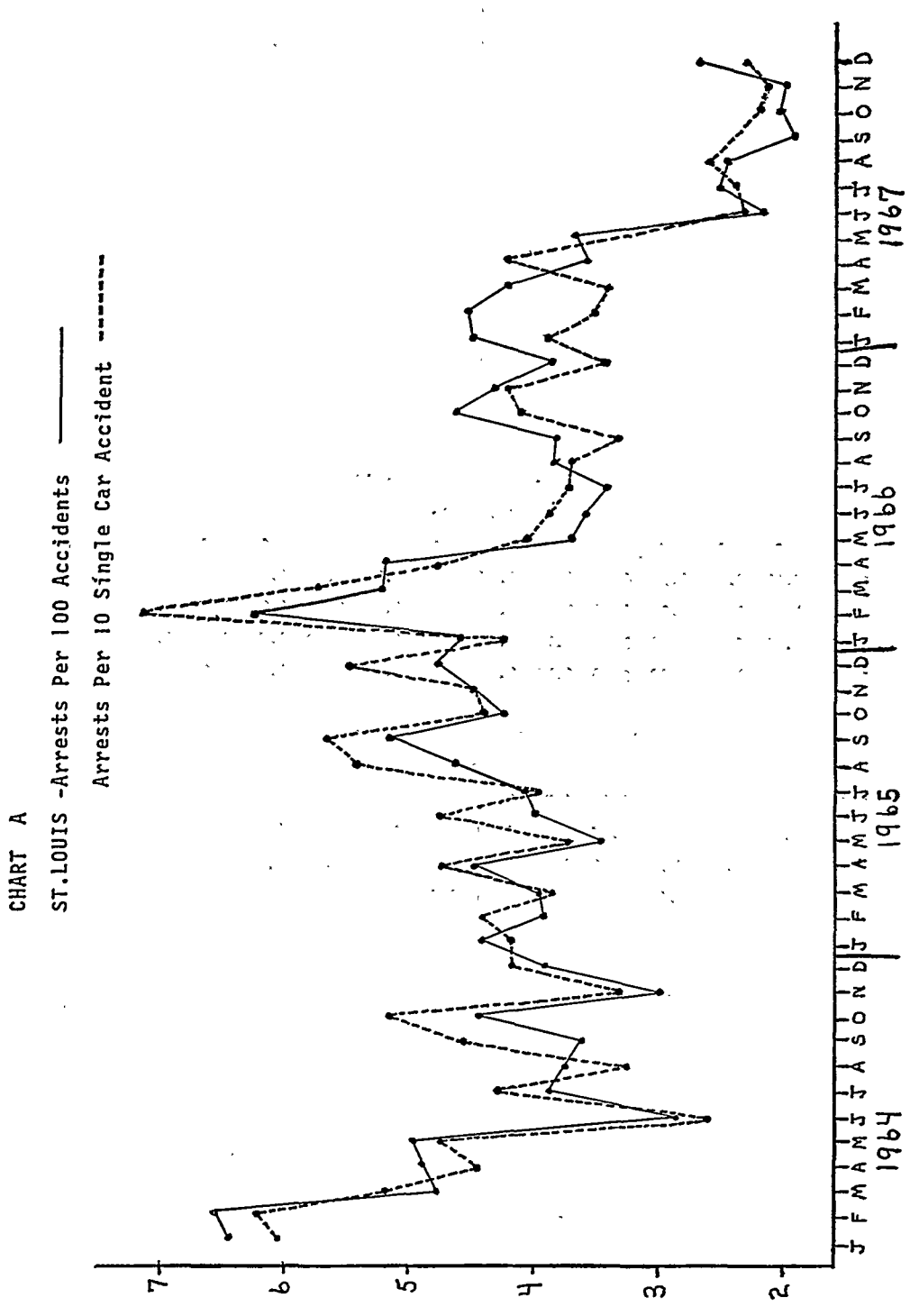


CHART A
ST.LOUIS -Arrests Per 100 Accidents ———
Arrests Per 10 Single Car Accident - - - - - -
7
6
5
4
3
2
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1964
1965
1966
1967

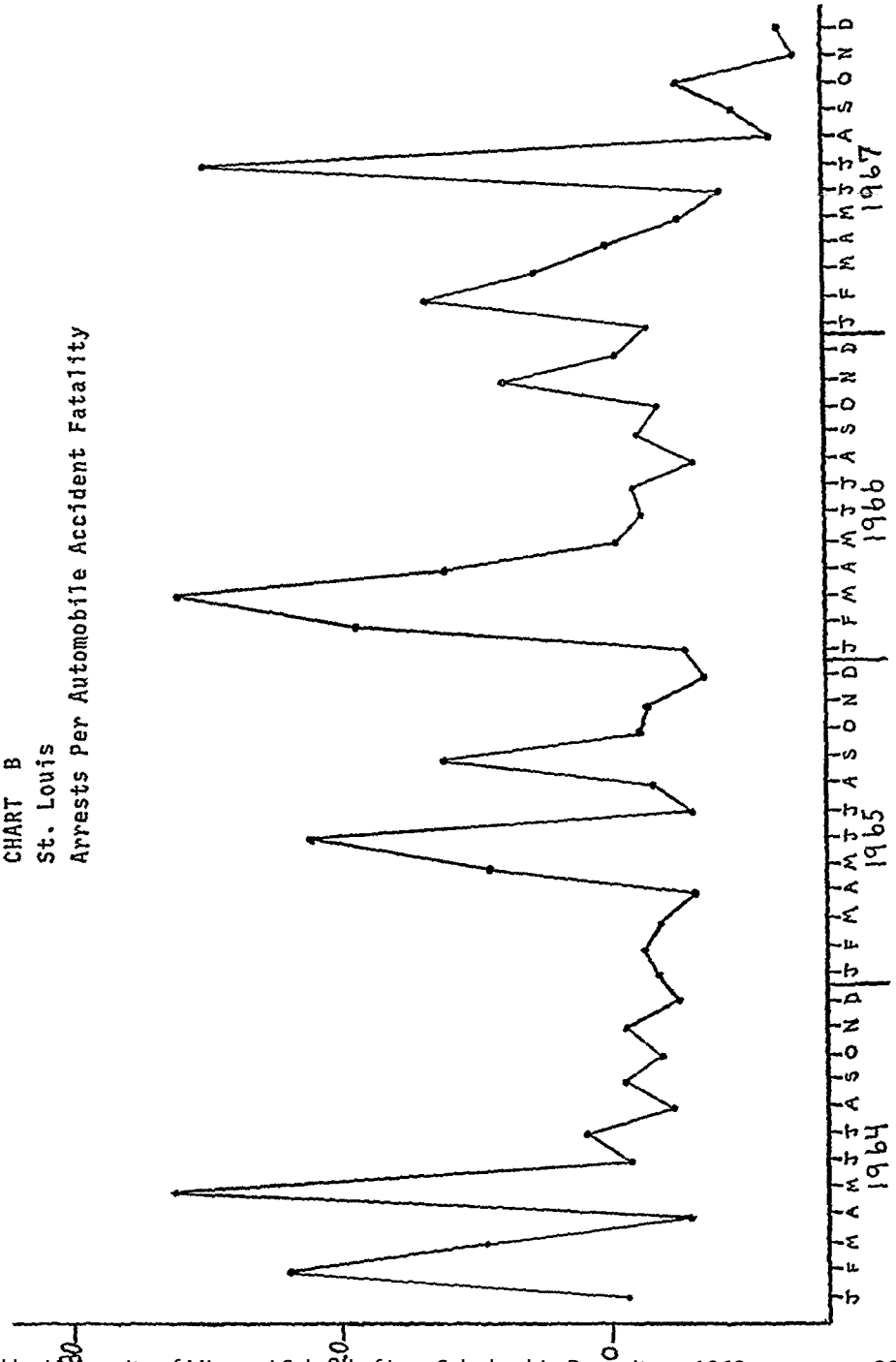


CHART B
St. Louis
Arrests Per Automobile Accident Fatality
30
20
0
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1964
1965
1966
1967

proper use of first aid may save lives that would have been lost. Any change in the monthly death figures produces a great distortion because of the small number involved.

Kansas City. The effective date of the implied consent law in Kansas City was the middle of October 1965. The available records are kept on a monthly basis and that particular month will be considered as the first month after the implied consent law became operative in Kansas City.

The raw arrest totals for Kansas City indicate little change after the implied consent law. (See Table IV.) In the 21 months preceding the law, the Kansas City police averaged 204.5 arrests per month; in the 27 months after the law, the average was 210.0.

The arrest figures from Kansas City are of much more doubtful accuracy than those obtained from St. Louis. The December 1964 total was grossly overstated, and it is possible the figures for that entire year are inaccurate. The figures for December 1965 appeared abnormally high and may also have been the result of poor computer work. Comparisons on a monthly basis for the year 1964 are not accurate as the monthly totals are admitted by the Kansas City police to be incorrect.

The rate of arrest compared to automobile population showed a rate of 13.86 arrests per 1000 cars in 1964; 9.937 arrests per 1000 cars in 1965; and 10.149 arrests per 1000 cars in 1966.

No valid comparison could be made for the months immediately following the effective date of the implied consent law because of the inaccuracy of the December 1964 arrest figures. A comparison of the arrest rate of the first four months of 1964 and 1965 showed an arrest rate per 1000 cars of 3.64 in 1964 and 2.69 in 1965 (both years before the implied consent law). In 1966 the rate rose to 3.49, an increase over 1965 but not as high as 1964, indicating that, as in St. Louis, the changes in enforcement may have been dependent on causes other than the implied consent law.

Comparing arrests to accidents on a monthly basis in Kansas City (see Table VII and Chart C) showed that 1964 (the year of admittedly inaccurate monthly totals) was a year of high enforcement, followed by a drop in 1965 and a rise in late 1965 that continued through 1967 with, however, substantial monthly variations. It is interesting to note that when compared to St. Louis (see Chart A) the arrests per 100 accidents were not only much higher in Kansas City, but the monthly variations were more extreme in Kansas City.

TABLE VII

Arrests per 100 Accidents

Kansas City

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	4.95	6.57	13.58	20.43	9.01	14.73	11.74	10.82	9.67	13.84	11.28	28.96	13.32
1965	5.20	8.91	7.18	12.41	8.13	8.79	10.26	7.16	12.30	9.78	8.26	18.37	9.87
1966	13.26	8.28	11.50	10.32	9.61	7.51	9.09	7.25	11.23	12.38	9.38	12.20	10.13
1967	14.56	16.53	17.27	12.27	11.80	9.77	9.86	9.77	9.57	9.08	12.10	12.29	11.81

Arrests per 10 Single Car Accidents (Excluding Collision with Parked Car)

Kansas City

1964	5.26	6.52	13.73	18.92	8.91	15.44	13.14	10.54	11.17	15.09	9.86	29.91	14.75
1965	4.85	10.88	7.26	13.04	8.38	10.65	12.78	7.20	14.83	11.04	8.90	19.19	10.73
1966	13.97	8.92	9.76	9.55	9.53	7.71	7.61	7.83	9.67	12.95	9.23	12.83	9.87
1967	14.01	16.57	17.01	13.84	12.35	10.00	9.02	9.06	9.54	8.63	11.89	10.90	11.54

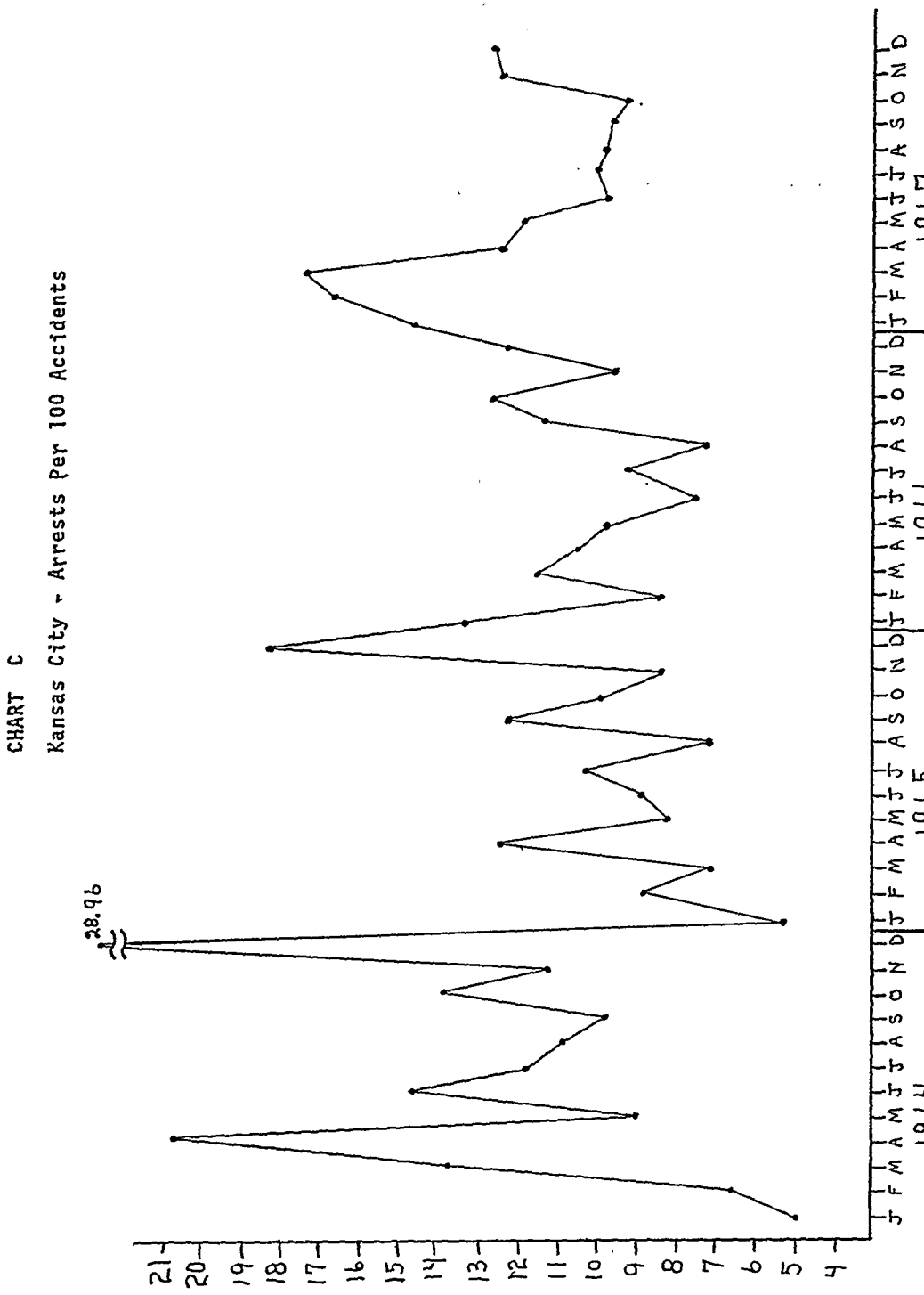
Chart D shows the monthly variation comparing arrests to single car accidents. The single car accident figure is not the same as the one used in the St. Louis chart nor that used in comparing enforcement rates between the two cities. For although the Kansas City entry, "collision with parked car," was excluded (as the St. Louis reports have no such entry) those accidents apparently were entered under "collision with other motor vehicle." Table VII shows the Kansas City figures on single car accidents but excludes collisions with parked cars. The inclusion of this category can be seen in Chart D.

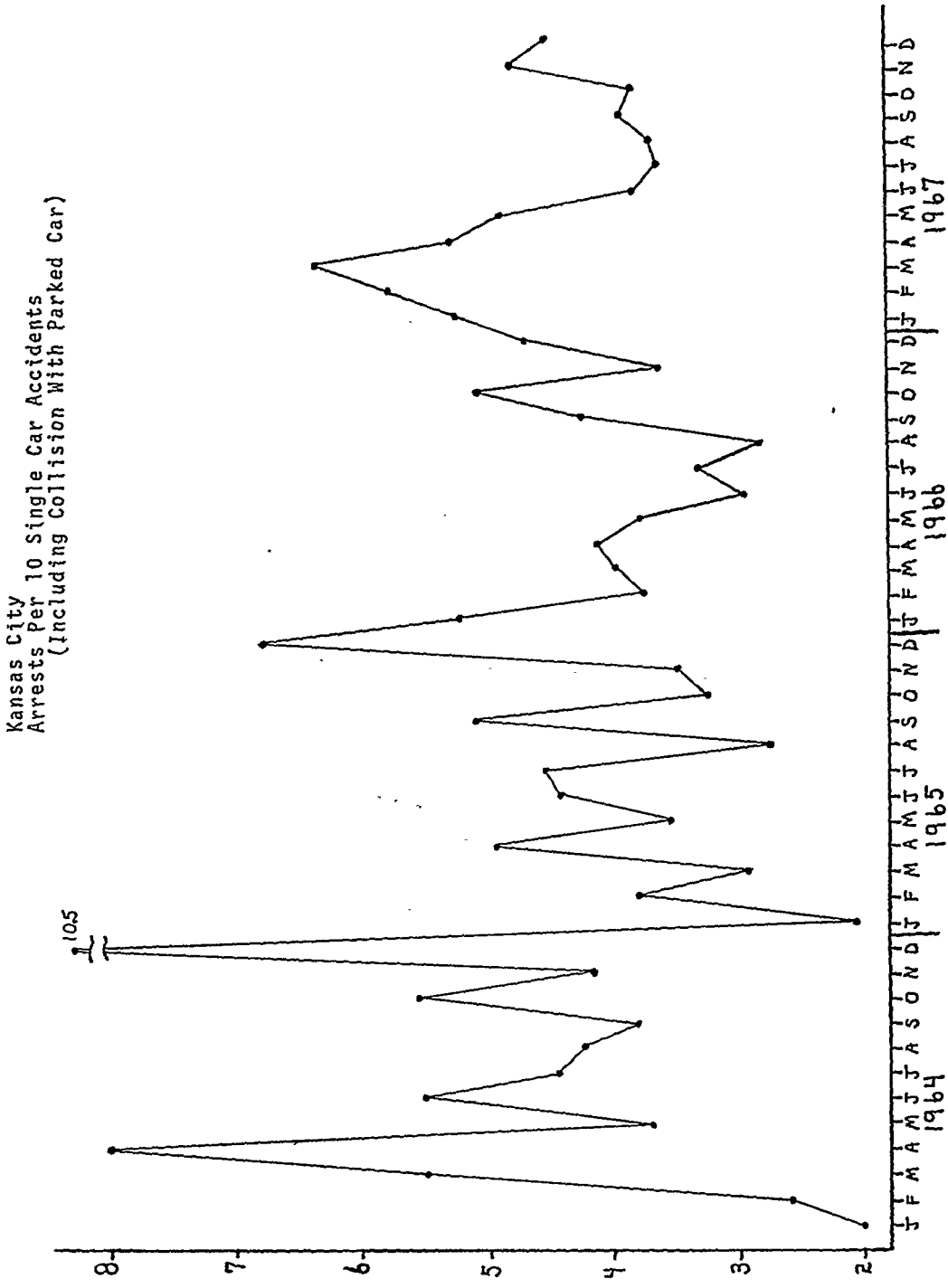
The comparison of arrests to single car accidents (Chart D) showed a pattern similar to the monthly ratio of arrests to accidents. However, comparing arrests with fatalities on a monthly basis showed a slightly different pattern with a declining enforcement rate in 1965 and 1966 followed by an increase in 1967. However, as noted, fatality figures are small, and slight changes in the number of fatalities can produce large distortion. (See Chart E.)

In Kansas City, as in St. Louis, there were changes indicated in the enforcement rate during the four-year period. However, except for a possible increase immediately after the implied consent law became operative, there was nothing to indicate a lasting change in enforcement that could be attributed to the implied consent law. Kansas City's rate of enforcement was high compared to St. Louis both before and after the law. Thus in both cities, the implied consent law greatly increased the numbers of tests given but did not seem to have had an appreciable effect upon the degree of enforcement of the drunk-driving laws.

CHART C

Kansas City - Arrests Per 100 Accidents




Kansas City
Arrests Per 10 Single Car Accidents
(Including Collision With Parked Car)
10.5
8
7
6
5
4
3
2
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1964
1965
1966
1967

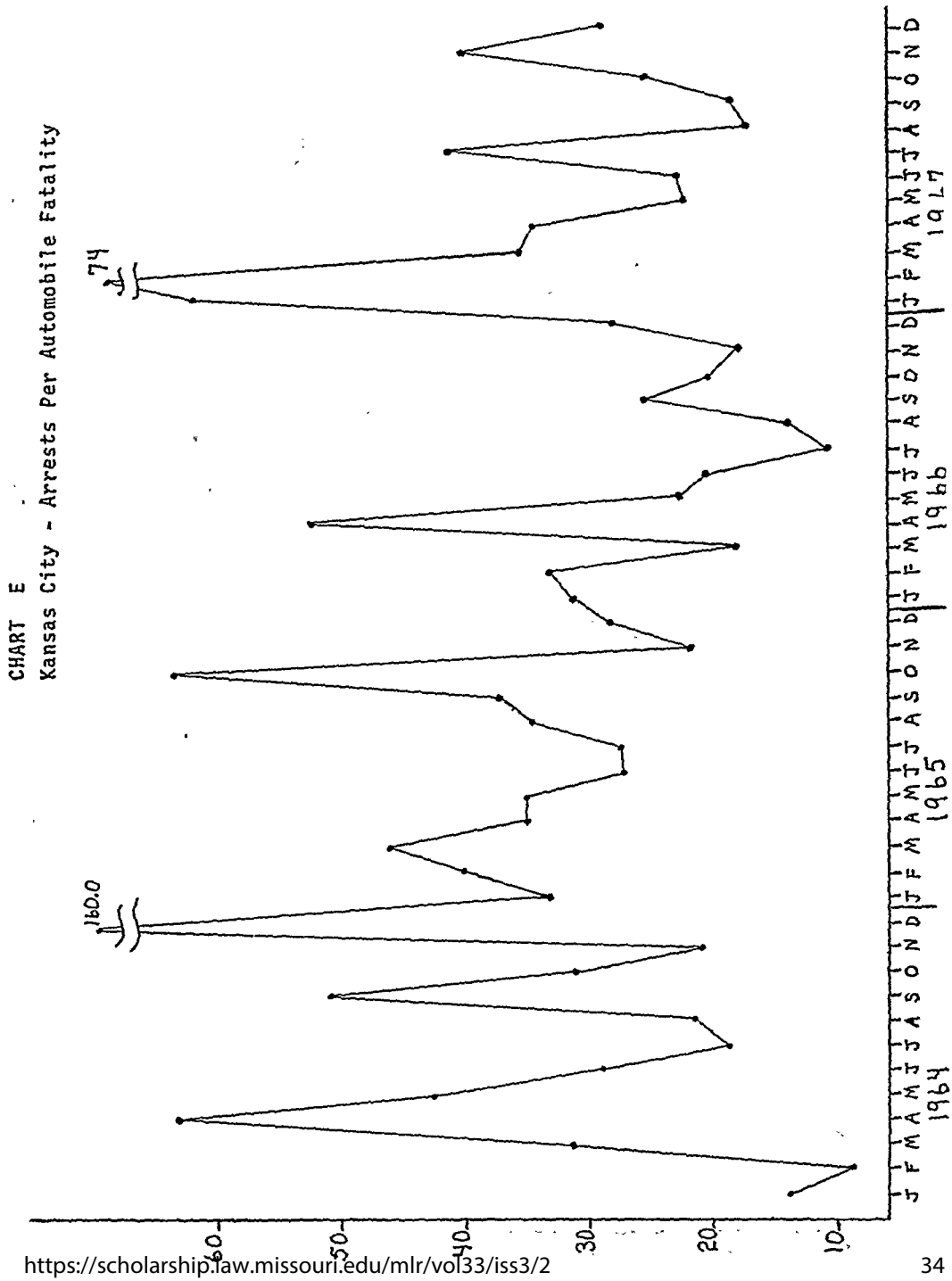


CHART E
Kansas City - Arrests Per Automobile Fatality
74
160.0
60
50
40
30
20
10
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1964
1965
1966
1967

So far in this study, it has been emphasized that Kansas City is an area of high enforcement and St. Louis an area of low enforcement. These attributions are based on a comparison of the number of arrests for drunk driving in the two cities and the comparison of the ratio of arrests to various factors (population, area, automobile population, accidents, single car accidents, and fatalities) which are assumed to have a relationship to drunk driving. It has been noted that driving conditions in Kansas City are quite different from those in St. Louis. Since the enforcement figures are of necessity dependent upon the arrest figures, Kansas City's high enforcement rate may to some extent result from there being more drunks to arrest in Kansas City than in St. Louis.

A comparison of the statistics of the two cities reveals that despite substantial differences in size and population, the traffic figures are comparable on a one-to-one basis.

	St. Louis	Kansas City	Ratio K.C./St.L.
Population	750,026	475,539	0.634
Auto Population			
1964	450,512	204,015	0.453
1965	495,884	225,127	0.454
1966	502,275	230,665	0.459
Area	61 Sq. Mi.	316 Sq. Mi.	5.180
Accidents			
1964	18,833	21,215	1.126
1965	20,793	22,663	1.090
1966	21,346	23,102	1.082
1967	23,084	21,670	0.939
Single Car Accidents (excluding collision w/parked car)			
1964	1,853	1,917	1.034
1965	1,961	2,085	1.063
1966	2,170	2,371	1.093
1967	2,408	2,218	0.921
Percent Accidents which are Single Car Accidents (excluding collision w/parked car)			
1964	9.83	9.03	
1965	9.43	9.20	
1966	10.16	10.26	
1967	10.43	10.23	

Fatalities			
1964	86	88	1.023
1965	107	68	0.635
1966	93	108	1.161
1967	106	86	0.811
Non-pedestrian Fatalities			
1964	44	71	1.614
1965	53	50	0.943
1966	57	82	1.438
1967	47	64	1.362

If the accidents are recorded according to time of occurrence, there is a difference in the nighttime accident figures for St. Louis and Kansas City. Considering accidents which occur between 9:00 p.m. and 4:59 a.m. as nighttime accidents, St. Louis has a greater number and a higher percentage than Kansas City.

Nighttime Accidents	St. Louis	Kansas City	Ratio K.C./St.L.
1964	5,116	4,277	0.836
1965	5,449	4,578	0.840
1966	5,602	4,674	0.834
1967	6,356	4,292	0.675
Percent of accidents which are nighttime accidents			
1964	27.17	20.16	
1965	26.21	20.20	
1966	26.25	20.23	
1967	27.53	19.81	

This may indicate that while there is an equality of accidents (in absolute numbers) the distribution of accidents as to day and night is different. Kansas City may have a lower absolute incidence of miles of drunk driving than St. Louis because night driving and night accidents are more commonly associated with drunk driving than is the pattern of daytime driving and accidents. However arrests for drunk driving show the Kansas City police to be far more active.

Drunk Driving Arrests

	St. Louis	Kansas City	Ratio K.C./St.L.
1964	819	2,827	3.452
1965	898	2,237	2.490
1966	925	2,341	2.531
1967	683	2,560	3.694

A comparison of those who took the test and measured 0.15% or higher (presumption of intoxication) with those who measures 0.05%-0.14% (presumption of sobriety) shows the Kansas City police arrest more drinking drivers than do the St. Louis police.

	St. Louis	Kansas City	Ratio K.C./St.L.
0.15% and higher			
1966	532	1,261	2.37
1967 (Jan.-May)	205	636	3.10
0.05%-0.14%			
1966	13	481	37.00
1967 (Jan.-May)	6	254	42.33
0.00-0.04%			
1966	4	56	14.00
1967 (Jan.-May)	2	54	27.00

It was indicated earlier that the St. Louis police were highly selective in their arrests for drunk driving, arresting only those persons who were obviously drunk. However, the Kansas City police were arresting a greater number of drunk persons, including those who had been drinking enough to impair their driving ability but were not yet in the "0.15% and higher" category.

A further indication that the figures for St. Louis deal with a select group of drunk drivers was shown by the test results during the period after the implied consent law became operative—January through April 1966—a period of increased arrests, and inferentially of increased police activity, in enforcing the drunk-driving laws. During this period 207 arrested drivers measured out at 0.15% or higher, while only 4 measured between 0.05-0.14%, and there was none in the category of 0.04% and below. (During the same period in Kansas City, 447 drivers tested out at 0.15% and higher, 177 at 0.05%-0.14% and 22 at 0.04% and below.) Thus, even with increased enforcement St. Louis still arrested only the very drunk, leading to the conclusion that there were many drivers who had been drinking but were untouched, or at least not arrested, by the police.

As mentioned, although Kansas City and St. Louis have differing enforcement systems, adoption of the implied consent law had quite similar effects in both systems. In both, the police began to test more and the number of persons submitting to testing rose sharply. However, except for a slight increase in activity immediately after the effective date of the

implied consent law, both systems showed little long-run enforcement change that could be attributed to the implied consent law. The St. Louis pattern of enforcement from January 1966 through May 1967 was just about the same as before implied consent. From June through December 1967, the St. Louis enforcement rate dropped to a low level. Thus, St. Louis, originally a city of low enforcement remained a city of low enforcement and even became lower, while Kansas City, originally a city of high enforcement, remained a city of high enforcement.

D. *Reasons for the Lack of Change*

However, some increase in enforcement would be anticipated with the adoption of an implied consent law as the law gives the police a weapon to facilitate the processing of drunk-driving cases since convincing evidence of guilt is easier to obtain. This, logically, would provide an incentive for the police to be more aggressive in enforcing drunk-driving laws, yet in St. Louis we have seen that the pattern of enforcement did not change. This could be due to a choice to use police resources toward ends other than traffic control. Or it could be that when the centralized testing system, which discourages aggressive police action in enforcement of drunk-driving laws, is coupled with the attitudes and practices of the St. Louis prosecuting attorneys, they combine to create a dampening effect on aggressive police enforcement.

Before a change in spring of 1966, almost all prosecutions for drunk driving in St. Louis were brought by the city attorney who would charge a violation of the city ordinance. As a result of pressures, including pressure from newspapers, the circuit attorney began prosecuting some drunk-driving cases under the state law. In order to bring a case to court under state law, the arresting officer must present his evidence (including the breath test results) to the circuit attorney's office which then decides whether or not "to issue the warrant," that is, to proceed with the prosecution. If that office refuses then the officer presents the case to the city attorney's office which decides whether or not to prosecute. The circuit attorney's office normally will not prosecute if the test shows less than 0.15%, and is especially reluctant to prosecute if no test has been given, although if the evidence of intoxication is very good the office may prosecute without test results. The city attorney's office is similarly reluctant to prosecute if the test shows less than 0.15%, but is not as reluctant if no test was given. For prosecution the test must show 0.15% or higher, which

makes the St. Louis police reluctant to bring in any person for testing who will not, in the officer's opinion, test out at that level. Bringing in a driver who tests under 0.15% is discouraged both by the attitudes of the prosecuting offices and by the police themselves who are naturally interested in maintaining a "good record."

The remarkable drop in enforcement in St. Louis during the last half of 1967 is difficult to explain. The figures showing this drop were not obtained until late 1968, and there has been no thorough attempt to investigate the possible causes. One report was that the city prosecutor's office adopted the system of refusing to "issue the warrant" unless the individual arrested was still in custody. In many drunk-driving cases the warrant is not sought until the day after the arrest (the arrest having occurred at night) and by that time most drivers have obtained their release on bond. The net effect of such a policy would be to prevent a majority of prosecutions by the city prosecutor.

It is difficult to explain why the city prosecutor should have adopted such a policy (if, in fact, he has). If it is true, it could certainly discourage the police from making drunk-driving arrests as it would greatly increase the chance that the arrest would not result in a conviction. In any event, no matter what the causes, the enforcement of the drunk driving laws in St. Louis has fallen from its low level to practically no enforcement at all.

In Kansas City, as noted previously, the police have more control over the enforcement of the drunk-driving laws. In Kansas City, the test presumably provided additional encouragement for the police to arrest suspected drunk drivers, but did not substantially increase the degree of enforcement which was comparatively high even before the implied consent law.

E. *Evaluation*

Evaluation of the two enforcement systems and the implied consent law depends upon the values one wishes to emphasize. Success is a matter of definition. Kansas City police arrest more drunk drivers than do the St. Louis police. They arrest a greater percentage of the drunk-driving population than do the St. Louis police, which includes more "innocent" persons, i.e., those who test out to less than 0.05% on the intoximeter. Yet even in Kansas City, the number of "innocents" is relatively small when compared to the total number arrested. The inconvenience to these persons is a cost to be measured against the benefits of the system. However, being arrested and "passing" the test may indeed yield benefits to

the enforcement system since the person arrested, despite the inconvenience of his arrest, has learned that the system is fair due to the test, and that there *is* enforcement of the drunk-driving laws, which might deter him in the future from driving while intoxicated.

If strict enforcement of the drunk-driving laws is the aim, then the Kansas City system is better. If inconvenience to the general driving population is to be avoided, even at the low levels noted in Kansas City, then the St. Louis system certainly rates higher. The implied consent law, while increasing efficiency in handling drunk-driving cases, does not of itself seem to have a substantial effect on the degree of enforcement of drunk-driving laws.

IV. Consequences of Implied Consent on the Administration of Drunk-driving Controls

A. *Revocations*

The drunk arrest, discussed previously, is the beginning of a multi-faceted process involving consent or refusal to submit to a test and determinations by the officer, the prosecuting attorney, and a criminal court. We now turn to a consideration of the effects of implied consent on these processes.

Loss of operator's license through suspension or revocation was possible prior to (and after) the implied consent law. Courts, including municipal courts, are required by statute to report to the Department of Revenue in Jefferson City any convictions for violation of traffic laws. This includes, of course, drunk driving. The Department of Revenue assesses the prescribed number of points against the offending driver and upon the accumulation of sufficient points in a certain period of time, the offending driver's operator's license may be suspended or revoked. A conviction of drunk driving in violation of the state law carries 12 points, enough by itself for revocation for one year. When such a conviction occurs, the judge of the court is required to collect the operator's license from the driver and send it to the Department of Revenue. A conviction of drunk driving in violation of city ordinance carries only 6 points and cannot, of itself, result in suspension or revocation of the license, although the license may be lost if the driver has accumulated sufficient points from other violations. A municipal court (city traffic court) cannot revoke a driver's license.[16]

16. § 302.225, RSMo 1967 Supp.

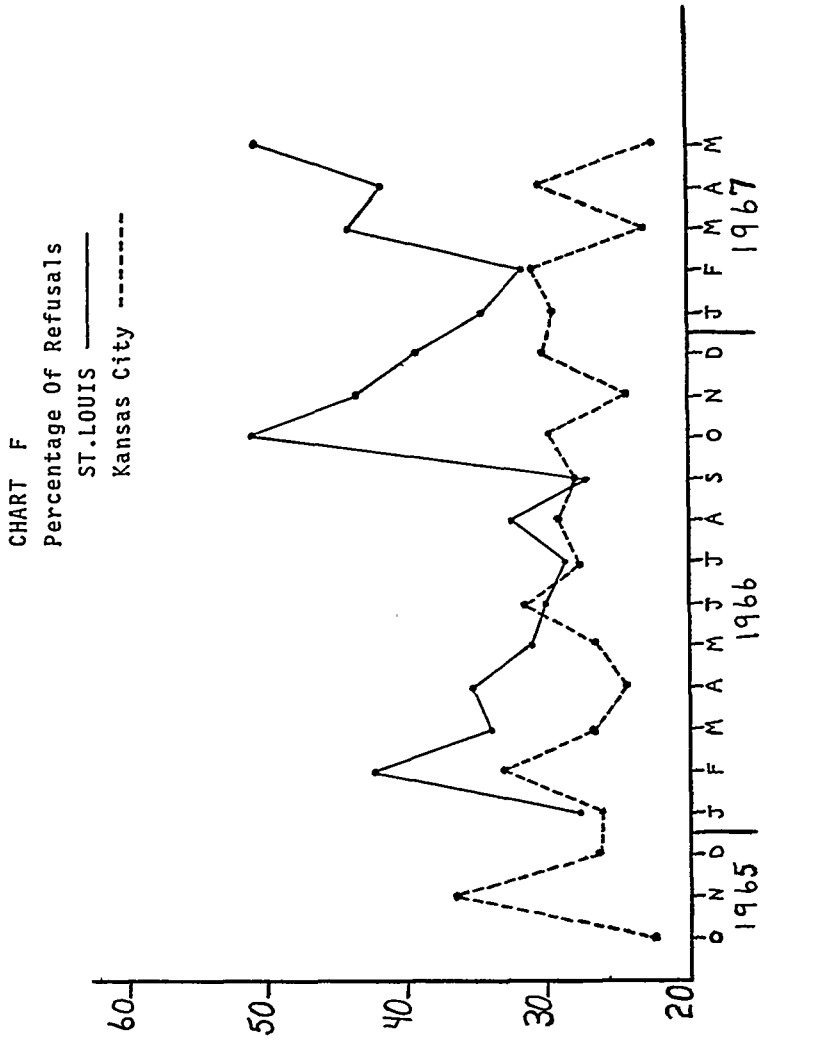
With the enactment of the implied consent law, a new method of revocation was established: revocation for refusal to submit to the chemical test. This revocation is not based upon any adjudication of guilt, but simply upon the refusal to comply to a valid request. Table V indicates the number of revocations in the two cities for refusal to consent to the test. Revocation figures were obtained from the Department of Revenue in Jefferson City. They depend, of course, upon the police sending in the notice of refusal. From discussions with several police officers, it was found that they thought refusals were sent in in nearly every instance; so the figures in the Department of Revenue are probably valid. Statistics relating the number of tests given and the number of refusals forwarded give no indication of a large number of "missing refusals" when compared to the gross number of arrests.

If most refusals are reported to Jefferson City, then a comparison can be made with the number of tests actually given. A comparison of refusals with the number of persons arrested is not as reliable because of the doubtful accuracy of the arrest figures, particularly those from Kansas City. For example, from January 1966 through May 1967 there were (according to police records) 1,298 arrests in St. Louis, 773 tests given, and 445 refusals. Of the 1,298 arrests, all but 80 are accounted for as having been tested or as having refused.

On the other hand, in Kansas City during the same period there were 3,496 arrests, 2,767 tests given, and 1,063 refusals. This means that there were 334 more tests and refusals than there were persons arrested. It is believed that this discrepancy is due to persons being technically arrested in Kansas City but being released before being entered officially as an arrest.

A comparison of the number of refusals with the number of tests does, nevertheless, give some indication of the refusal rate and the differences in the two cities. Taking the number of tests given plus the number of refusals as being the population that is requested to submit to the test, the percentage of refusals is higher in St. Louis than in Kansas City, St. Louis recording 37.1% refusals to 27.9% for Kansas City. (See Chart F.) No percentage is shown for St. Louis until January 1966 when the implied consent law became effective there. The refusal rate for that month is low (27.9%) because the police did not have an approved testing machine during the entire month, and, until the approved machine was acquired, no refusals were reported.[17] Kansas City also shows a low rate of refusals

17. One refusal was reported in December 1965. However, the license was reinstated.



(22.4%) during its first month, October 1965, under the implied consent law. However, the law was not in effect during that entire month so refusals could be reported only after the law became effective on October 13. In addition to having a lower rate of refusals, Kansas City's refusal rate is fairly constant, and there is even a slight decline in the refusal rate. St. Louis, on the other hand, shows considerable variation in the refusal rate from month to month. This variation is due in part to the small number of tests and refusals compared to Kansas City so that a slight change in number can result in a large percentage change. In addition, the pattern in St. Louis shows a general increase in the refusal rate.

Thus, while Kansas City has a far greater number of persons who lost their driving privileges than St. Louis, a greater percentage of those requested to take the test refused in St. Louis than in Kansas City.

The difference in refusal rate may be related to the differences in the groups arrested in the two cities. In St. Louis, judging from the results of the tests administered, only those drivers who are presumed to test out at least 0.15% are arrested. In Kansas City, a much larger percentage of persons is arrested, and many test out at less than 0.15%. It is reasonable to believe that refusals would be greater among the very drunk than among those who had simply been drinking. If fear of failing the test causes persons to be reluctant to take the test, then one would find a greater number of refusals among the drunk. However, while this might account for the difference in refusal rates between the two cities, it does not explain the apparent increase in the refusal rate in St. Louis.

If the objective of the implied consent law is to provide a deterrent to drunk driving, the loss of the driver's license would seem to be a significant deterrent. In individual cases the loss of the license for a year makes it less likely that the individual will drive (and will drive drunk) during that period. To the extent that it imposes a punishment, the revocation may serve the same purpose and perhaps serve it better as a conviction. To most people the loss of a driver's license is a greater penalty than the usual fine ($100 to $125) imposed for a conviction of drunk driving. If the conviction also results in the loss of the driver's license (under the point system), then the penalty for refusal to take the test is less than the penalty for failure. However, refusing to take the test does not simply result in revocation of a driver's license. The individual can still be prosecuted either for drunk driving or for some other but lesser violation such as careless and reckless driving.

The main advantage to the system of revocation for refusal to submit to the test as a way to getting drivers off the road is administrative convenience; adjudication is not required. This convenience may not be costless. The implied consent law is basically a form of compulsory disclosure or supplying of incriminating evidence. The compulsion is the threat of loss of the driver's license for refusal to supply the evidence. Although the law is clear that this does not violate the privilege against self-incrimination, there is a question of basic fairness involved in any system of compulsory disclosure or punishment. However, with the implied consent law the individual himself makes the choice, albeit possibly between unpleasant alternatives, and he has been placed in this situation because of conspicuously

irresponsible behavior or at least behavior which gives an officer reasonable ground to believe he is driving while intoxicated. The use of implied consent seems fairer than other forms of official intervention, such as tests without consent, which are theoretically permissible under *Schmerber*, and seems preferable to the alternative of not allowing any tests without consent and providing no penalty for refusal. Revocation for refusal to take the test may in a given case be a harsh result, but it is preferable to the available alternatives.

Some of the harshness of the implied consent law is alleviated by the provisions for allowing reinstatement of driver's licenses and for the issuance of hardship licenses. Upon the request of the person whose license has been revoked for refusal to submit to the test, a hearing will be held before a court as to whether the revocation was proper. However, the hearings are limited to:

1. whether or not the person was arrested;
2. whether or not the arresting officer had reasonable grounds to believe the person was driving a motor vehicle while in an intoxicated condition; and,
3. whether or not the person refused to submit to the test.[18]

If any of these issues are found in favor of the driver, the court then orders the license to be reinstated. It is also possible for a court to issue a hardship license with limited driving privileges where "a driver is required to operate a motor vehicle in connection with his business, occupation or employment."[19]

During the period of October 1965 through May 1967, there were the following number of reinstatements and hardship licenses issued after revocation for refusal to submit to the test.

	St. Louis		Kansas City		Rest of State	
Refusal revocations	456	100%	1,216	100%	1,141	100%
Petitions for Reinstatement	28	6.14	292	24.01	375	26.52
Reinstatement Orders	13	2.85	145	11.92	118	8.34
Hardship Licenses Issued	13	2.85	51	4.19	119	8.41

18. § 564.444 RSMo 1967 Supp. It should be noted that this does not include whether the required warning was given by the arresting officer.
19. § 302.309 RSMo 1965 Supp.

This information was obtained by manual examination of the revocation files in the Department of Revenue in Jefferson City. The reasons for the reinstatements are not known. However, the small number of petitions in St. Louis as compared to Kansas City may indicate that the St. Louis police make fewer mistakes in administering the implied consent law than the Kansas City police. As mentioned above, the St. Louis police arrest only the very drunk whereas the Kansas City police arrest a sizable number who test out at less than the 0.15% level of intoxication. The possibilities of making arrests without probable cause would be much greater in an area of aggressive enforcement than in an area of conservative enforcement, and this may account for the very small number of reinstatement applications and reinstatements in St. Louis. There are also rumors that some judges in Kansas City (and in outstate Missouri), antagonistic to the implied consent law, were more willing to grant reinstatements. In any event, a driver who refuses to submit to the test and has his license revoked has a much better chance for getting it reinstated in Kansas City than he has in St. Louis, but reinstatements and hardship licenses even in Kansas City, total only about 16% of the total number of revocations.

B. *Convictions*

One of the major purposes of the implied consent law is to compel persons arrested for drunk driving to submit to the test and thus provide convincing evidence of their intoxication. With this evidence, convictions are supposed to be more certain in those cases where the test indicates intoxication.

Under Missouri law all traffic convictions must be reported to the Department of Revenue in Jefferson City so that the prescribed points may be assessed against the offender. This report is to be made within ten days of the conviction.[20] Tables VIII and IX show the number of convictions for drunk driving reported to the department from St. Louis and Kansas City. There is a delay between the arrest and the conviction and possibly a further delay in reporting the conviction so that a comparison of arrests with convictions will be affected by this lag. Similarly, comparison on a monthly basis will be affected since the arrests of one month may not result in a conviction until a later month. On a yearly basis, however, most of this lag will balance out.

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20. § 302.225, RSMo 1959, § 302.225, RSMo 1965 Supp.

TABLE VIII

Driving While Intoxicated Convictions Reported to Jefferson City

St. Louis

		J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	City	25	10	31	43	35	33	42	35	32	27	40	37	390
	State				1									1
1965	City	42	36	49	37	47	52	47	38	42	49	45	41	525
	State							2				1		3
1966	City	95	62	70	72	58	58	31	49	52	39	43	36	665
	State				1	4	17	12	13	15	24	10	17	113
1967	City	40	29	33	29	33	24	18	12	19	19	14	12	282
	State	28	33	33	28	28	28	24	16	14	16	14	18	280

TABLE IX

Driving While Intoxicated Convictions Reported to Jefferson City

Kansas City

		J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	City	82	61	91	119	127	112	113	93	102	90	103	101	1,194
	State									1				1
1965	City	106	94	100	117	106	93	82	95	106	99	83	78	1,159
	State				1							1		2
1966	City	116	118	114	100	103	130	92	112	72	113	107	80	1,257
	State						1							1
1967	City	145	104	135	114	109	117	81	94	107	105	93	104	1,308
	State	1		1										2

St. Louis. A comparison of arrests to convictions shows the following yearly conviction rate for St. Louis.

	No. Arrests	Convictions Reported	Percent of Convictions
1964	819	391	47.7
1965	898	528	58.8
1966	925	778	85.2
1967	693	562	81.1

This would indicate that the conviction rate increased greatly after the implied consent law became operative in January 1966, and remained high despite the drop in arrests in 1967.

This, of course, depends upon the figures being accurate. The difficulty in getting accurate arrest figures has already been discussed. The conviction figures were obtained from the Department of Revenue in Jefferson City. That office supplied a print-out from their computer indicating all convictions for drunk driving, and this print-out was manually checked for St. Louis and Kansas City convictions. Again, the accuracy of the

conviction figures depends upon the various courts reporting the convictions to Jefferson City. A comparison with the records of the two city courts in St. Louis discloses some discrepancies. The City Court's records show 605 convictions for driving while intoxicated during the year 1965, while Jefferson City received reports of only 525 such convictions. Only three state convictions were reported during the same year. In 1966 the City Court records show 685 convictions, while there were 665 city convictions reported to Jefferson City. This would indicate that the reporting of convictions by the City Courts was good during 1966 but possibly not so good in earlier years. If the City Court records are accurate, there was still an increase in the percentage of arrests resulting in convictions after the implied consent law, but the increase was not as great, rising from slightly over 67% in 1965 to over 86% in 1966. There were 133 state convictions reported to Jefferson City in 1966 from St. Louis. Prior to May 1966, nearly all prosecutions for drunk driving in St. Louis were brought in the City Court. After that date, partially as a result of pressures from newspapers and elsewhere, the circuit prosecutor began handling drunk-driving cases.

One result of this change was that the police now have to apply first to the circuit prosecutor's office to see if that office would prosecute a particular case. If that office declined, the police then take the case to the city prosecutor to see if he will prosecute. While the police system for processing drunk-driving cases is centralized, the prosecution system is decentralized, with two prosecuting authorities acting independently of each other, although there are no double prosecutions for the same act of drunk driving.[21]

The number of state prosecutions rises steadily from the middle of 1966 through the first half of 1967, and then it drops off, although the decrease is not as great as that in the number of city prosecutions.

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21. Changes in prosecutor policy are reflected in the orders of the St. Louis Police Department concerning procedures for booking in drunk driving cases.
January 10, 1966. Book only on city charge.
May 4, 1966. Book only on state charge. (This was when the circuit prosecutor began to prosecute drunk driving cases under the state statute).
June 27, 1966. Book on both the state and city charges. (The beginning of the "double summons" period).
September 1, 1966 (teletype message) Book only on state charge.
September 2, 1966 (teletype message) Book on both state and city charges.
June 5, 1967. Book only on state charge. (Ending the period of "double summons").
June 28, 1968. Book on both state and city charges. (This is beyond the period of this study).

The reason for the drop in prosecutions is, of course, related to the drop in arrests for during the last half of 1967 there was a sharp drop in the arrest rate, and consequently fewer persons could be prosecuted. However, the reason for the drop in arrests and prosecutions is not clear. If, as has been indicated, the drop was due to a change in the attitude of the prosecutors in refusing to prosecute, this could in turn lead to a reduction in the number of arrests. If the prosecutors were refusing to prosecute, then there should be a drop in the percentage of those arrested who are prosecuted. During the first half of 1967 there were 414 arrests and 366 convictions or a conviction percentage of 88.4%. For the last half of 1967 there were 279 arrests and 196 convictions for a percentage of 70.3%. This gives some indication that the drop in convictions was due to the actions of the prosecutors rather than the police. However, the numbers involved are not great. Comparing arrests and convictions for the same time period has the defect of the lag between arrest and conviction, but when investigating the effect of prosecutor behavior on police behavior, no real time lag problem exists. Of primary interest is the way in which what the prosecutor did in Month X affected the police in that month. The arrests of a given month are not necessarily those involved in the convictions for that month. It is the timing of the prosecutor's decision which is important here and not the month of arrest.

For St. Louis, then, the implied consent law made it possible to secure a higher percentage of convictions than had been obtained before. One of the purposes of the law is to make conviction more certain, and it has had that effect in St. Louis. It is possible that conviction for offenses like careless and reckless driving, where drinking is suspected but not proved, may have declined because they are now less necessary. The decline in convictions and the rate of convictions during the last half of 1967 may be due to a number of factors but there is no reason to believe it is related to the implied consent law, except as it indicates that an implied consent law alone will not insure a high rate of convictions. There are other factors which can affect the conviction rate.

Kansas City. Using the convictions reported to the Department of Revenue the percent of arrests resulting in convictions are:

	No. Arrests	Convictions	Percent
1964	2,827	1,191	42.3
1965	2,237	1,161	51.9
1966	2,341	1,258	53.7
1967	2,560	1,310	51.2

These figures indicate that Kansas City not only has a much lower conviction rate than St. Louis, but that the implied consent law had practically no effect on the rate of conviction. While it is reasonable to expect a lower conviction rate in Kansas City than in St. Louis simply because in St. Louis only the very drunk are arrested, and one would expect a high degree of successful prosecutions when only sure cases are ever brought to trial. However, as noted before, in Kansas City persons who test out at less than 0.15% are charged, and a greater percentage of these should be acquitted. Even so, one would not expect a conviction rate in Kansas City which is 30% below that of St. Louis. However, there is reason to doubt the accuracy of these figures for these percentages are of the convictions reported to the Department of Revenue in Jefferson City which were acquired in the same fashion as the figures for St. Louis.

A comparison of the number of convictions reported to Jefferson City and the number of convictions claimed by the Kansas City police reveals a large discrepancy.

	No. of Convictions Reported to Jefferson City	No. of Convictions Claimed by Kansas City Police
1964	1,195	1,829
1965	1,161	1,603
1966	1,258	1,695
1967	1,310	1,927

The police convictions are from the annual reports of the Kansas City police. Using these police figures the percentage of arrests resulting in convictions is much higher.

	Arrests	Convictions (K.C. Police Figures)	Percent
1964	2,827	1,829	64.7
1965	2,237	1,603	71.7
1966	2,341	1,695	72.4
1967	2,560	1,927	75.3

These figures show a higher number of convictions and a slight increase in the conviction rate after the adoption of implied consent.

It is not known which set of conviction figures (if either) is accurate. While police records, including the arrest figures for Kansas City, are known to contain inaccuracies, the police figures on convictions are collected at least in part for the purpose of publication and are prepared

by someone who is interested in something approaching an accurate accounting. The police record of conviction could be inflated, but it seems highly unlikely that the police would manufacture the number of convictions which makes for the discrepancy between the police figures and the convictions reported to Jefferson City. A more likely explanation, but one based on hypothesis not investigation, is that some of the clerks of the various Kansas City courts are remiss in their duties of reporting convictions.

The Kansas City annual police reports break down the dispositions of persons arrested according to conviction, acquittal, cases pending, transfer to juvenile authorities, etc. Just taking those cases in which there was a disposition during the year (that is, removing the "pending cases"), the slight increase in the conviction rate after the implied consent law is more apparent. This, of course, depends upon the police claim of the number of convictions being accurate.

	Total Dispositions	Convicted	Acquitted or Other Disposition	Percent Convicted
1964	2,721	1,829	892	67.2
1965	2,261	1,603	658	70.9
1966	2,224	1,695	529	76.2
1967	2,506	1,927	579	76.9

Assuming the accuracy of the figures, the implied consent law results in a better conviction rate in both cities. This accords with reasonable expectations since the implied consent law results in there being more reliable and more convincing evidence of intoxication to present to the court and jury.

However, the convictions deal with two groups, those who consent and those who do not. Those who refuse to submit to the test in most instances have their licenses revoked for a year. In addition, some of them are also convicted of drunk driving. There is no easy way of discovering how many of those who refuse to submit to the test are also later convicted of drunk driving. During the summer of 1967, a manual examination of the records of the Department of Revenue in Jefferson City was made to discover the number and location of refusals to submit to the test. These files were also examined to see whether there was a later conviction for drunk driving among those who had refused the test. A conviction within three months was assumed to arise out of the same arrest as the refusal. Table X shows the refusals later resulting in convictions

in both St. Louis and Kansas City. According to these figures, nearly half, or 49%, of the refusers in St. Louis are later convicted, while in Kansas City the figure is 36.4%.

TABLE X

DWI Convictions After Refusal to Submit to Test

		J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
St. Louis														
1966	number of refusals	19	31	25	34	21	17	15	18	17	44	36	30	307
	city convictions	1	3	11	9	16	11	8	7	8	8	19	14	115
	state convictions			1			3		3	7	4	2	2	22
1967	number of refusals	26	22	32	29	29								148
	city convictions	18	17	15	10	19								79
	state convictions	3	1	3										7
Kansas City														
1965	number of refusals										32	67	54	153
	city convictions										13	29	21	63
	state convictions													0
1966	number of refusals	60	61	61	62	58	59	50	49	55	67	51	79	712
	city convictions	21	28	18	26	31	21	25	24	19	23	19	31	286
	state convictions				1									1
1967	number of refusals	80	71	59	70	71								351
	city convictions	27	27	15	13	10								92
	state convictions				1									1

There is some variation in the rate of conviction of refusers. In St. Louis, the rate is very low during January and February of 1966. After that it ranges from a low of 26.5% to a high of 88.2%. Most of the months have well over 50% conviction rate. The rate drops slightly in April and May of 1967 which may be due to the delay between refusal and conviction, and could mean that some of the convictions might not have occurred or were not reported to Jefferson City at the time the files were checked.

In Kansas City the rate of conviction of refusers starts at 40.6% for the first month of operation (October 1965) and ranges between a low of 29.5% to a high of 54.4% before falling off in March, April, and May of 1967 to 25.4%, 20.0%, and 14.1%. This fall-off may also be due to the delay between refusal and conviction as well as to a delay in reporting the convictions to Jefferson City.

Using the period of March 1966 through February 1967 for St. Louis and the period October 1965 through February 1967 for Kansas City, and assuming that these periods more accurately reflect the normal conviction rate for refusers, the conviction rate for refusers in St. Louis is 56.4% and in Kansas City it is 39.8%.

However, as mentioned above, there is reason to doubt that all of the Kansas City convictions are reported to Jefferson City. If the police conviction claims are correct, then over a four-year period, 1964-1967, only 70% of the drunk-driving convictions have been reported to Jefferson City. If the police claims are correct, and if the rate of nonreporting of refuser's convictions is the same as the rate of nonreporting in all convictions, then instead of 404 convictions out of 1,016 refusals there should be 577 convictions for a percentage of 56.8%.

It is undoubtedly true that some refusers are later convicted of a charge other than driving while intoxicated, the most likely charge being careless and reckless driving. The reasons for such a prosecution rather than one for drunk driving are first that, since the man has refused the test, the only evidence of intoxication will normally be the officer's testimony, and second, since the refuser has already lost his license (or will lose it when the report of his refusal is sent in) it is felt that a further conviction for drunk driving would be unduly harsh.

The implied consent law is no aid in securing the conviction of a driver who refuses to submit to the test. Although the statute does not specifically say so, it is believed that evidence of a refusal to take the test is inadmissible in a prosecution for drunk driving. There is also not the same necessity of prosecuting the refuser for he will suffer the sanction of revocation simply by virtue of refusing. Whether or not the refuser is later convicted, the outcome from the police point of view is favorable since the person arrested is punished. Therefore, the advantage of the implied consent law in securing conviction is only in those cases where drivers submit to the test and fail.

If the number of convictions is reduced by the number of convicted refusers, presumably the resulting figure should be approximately the number of consenters who were convicted. If the number of arrests is reduced by the number of refusers, the result should be the number of consenters who were arrested (or at least nonrefusers). Using these figures the percentage rate of conviction for consenters in St. Louis for the period of January 1966 through May 1967 is 869 convictions divided by 843 arrests for a success ratio of 103.1%. This cannot be correct. However, the error may be in the figures used which are not precisely accurate and which do not coincide as to time: the arrests, refusals, and refusal convictions are based on date of arrest; the convictions are based on date of conviction. Even allowing for inaccuracies and the delay between arrest and conviction,

the success ratio is very high in St. Louis. This is consistent with the test results in St. Louis, where nearly everyone who took the test failed (scored 0.15% or higher). That the success ratio is high is reflected in a police study of May 1967, which stated, "As of this date no case has been lost where the D.P.C. test had been given and 0.15% blood alcohol has been shown."

For Kansas City such a comparison is more difficult because of the questionable accuracy of the conviction figures. If the police figures are correct and are used, then a comparison can be made for the year 1966 (since the police convictions are yearly totals and are not broken down by month). Also, if the figures for convictions of refusers are adjusted to correspond to the police figures (for 1966 approximately 25% of the convictions were not reported), a comparison can be made.

For 1966 there would be 1,312 convictions divided by 1,629 arrests for a conviction ratio of consenters (or at least nonrefusers) of 80.5%. Since a number of persons arrested by the Kansas City police "pass" the test, the conviction ratio should be less than that of St. Louis. Since it is believed that Kansas City under-reports the number of actual arrests, their conviction ratio may be even less.

During 1966, the test results from Kansas City show 1,261 persons who tested out at 0.15% or higher. However, in Kansas City, unlike St. Louis, the pass-fail line is around 0.10%, and in 1966 there were 354 persons who tested out between 0.10% and 0.14% making a total of 1,615 persons who "failed the test" in Kansas City. There were also 127 persons who tested out between 0.05% and 0.09%, and 56 who scored less than 0.05%, and an additional 25 whose tests were defective or were not given for some reason, for a total of 1,823. If the correct conviction total of consenters (those who did not refuse) is 1,312, and there were 1,823 arrests (as indicated by the number of persons tested); then the conviction rate for consenters in Kansas City is only 72.0%. This apparently includes those persons who were technically arrested, passed the test, and were released without further record being made.

Because of the questionable accuracy of some of the figures, it is impossible to state precisely the effect of the implied consent law on revocations and convictions. However, it is clear that the law increases results which are favorable to the police in that it punishes those the police have arrested and believe ought to be punished. The police success ratio goes up substantially after the law comes into effect. For the person who is arrested and who refuses to submit to the test, there is an almost

automatic penalty: revocation of his driver's license. A further conviction of the refuser is "just so much gravy" from the police point of view; the penalty is already there. There is some doubt among the few police interviewed, particularly in St. Louis, as to whether the license revocation system is as effective as it ought to be. In particular, some officers feel there is not an effective system of obtaining the licenses of those who refuse testing and suffer the resultant revocation. No investigation of this aspect of the law has been made, but to the extent the police feel that the refuser is not going to suffer revocation, the implied consent law suffers as a contribution to police morale.

For the person who takes the test and fails, the result favorable to the police is conviction. The implied consent law increases the number taking the test and consequently increases the number who are convicted with the evidence provided by the test. For those who are arrested and who pass the test, there is no police-favorable result, but the police have not necessarily "failed." This result is determined scientifically and is not the result of a court decision, and is doubtlessly more readily accepted as being the correct result than an acquittal in a court.

If every arrest that ends in either a conviction or a revocation is considered an arrest resulting favorably to the police, the implied consent law increases police favorable results. For 1964 and 1965 in St. Louis, the ratio of favorable results is simply the percentage of arrests which result in convictions, 47.7% in 1964 and 58.8% in 1965. It is possible the ratio was higher, but the reporting of convictions to Jefferson City was not as good in those two years as in later years. To get the ratio of police-favorable results for 1966 and 1967 it is necessary to add to the number of convictions and the number of licenses which are revoked for refusal, and then subtract the number of refusers who are also convicted (these having been counted twice—once in the conviction total and once in the revocation totals). For St. Louis the 1966 ratio of police-favorable results is 102.5% and for the first five months of 1967 it is 100.8%. This error may be due to small mistakes in the figures or to the time lag between arrest and conviction.

For Kansas City, if the police conviction figures are used, the police success ratio is 64.7% for 1964, 74.6% for 1965 (the last three months of which were under implied consent), and the ratio rises to 86.5% for 1966. These figures incorporate the police arrest figures, which are believed to be understated since they seem to exclude from count those persons who were arrested but who pass the test. The refusal conviction total was also adjusted

to reflect the higher rate of convictions claimed by the police rather than the actual number reported to Jefferson City.

The main consequence of the implied consent law in both Kansas City and St. Louis was to make the criminal process more efficient in the sense that a greater proportion of persons arrested for drunk driving suffered a penalty than before. If the figures can be believed, St. Louis has a perfect record in efficiency. In view of the difficulty of obtaining accurate police arrest statistics from St. Louis, it is reasonable to assume that the figures finally obtained, while more nearly accurate than the early reports, still have some errors in them, and that some arrests have been lost in the process of computer record-keeping. Even assuming errors, the St. Louis records indicate that nearly all those arrested for drunk driving either had their licenses revoked for refusing to take the test, or were convicted of drunk driving, or both. Since the St. Louis police arrest only the excessively drunk, the high success ratio in St. Louis is not surprising.

If it is assumed that the police claims of convictions to be correct, Kansas City shows an improvement after the implied consent law, which, while significant, does not come up to the level of St. Louis. However, the police in Kansas City not only arrest a sizable number of persons who test out between 0.10% and 0.14% they also charge these persons with drunk driving, and it is not surprising that not all of these charges result in conviction.

In both cities the conviction rates go up and the police success ratio increases substantially. The reasons are clear—the implied consent law provides for the revocations upon refusal to submit to the test, and the evidence acquired from the consenters makes it easier to obtain convictions. This combination should boost police morale for it means that the chance of a favorable result (i.e., of some penalty being imposed) in each case is high—and in St. Louis, coupled with the highly selective enforcement, almost a certainty. Perhaps more important is what the implied consent law avoids in many instances: that the arrested driver would obtain an acquittal because the judge or jury would not believe or put much weight in the arresting officer's testimony indicating intoxication. To lose a case in this fashion can be a frustrating, humiliating, and discouraging experience for a police officer. In such a situation he is a victim of the public's ambivalent attitude toward drunk driving. Most persons want, or at least say they want, strict enforcement of the laws on drunk driving, yet prosecuting attorneys report that juries are reluctant to convict drunk drivers except in clear-cut cases. This could be because the juror can identify with the

defendant who claims to have had only a couple of drinks, and he is reluctant to convict someone who is no worse than he is. The blood alcohol test makes it much easier to convince the jurors (and the judge) that the defendant *was* intoxicated, and thus it is easier to obtain a conviction.

From the policeman's point of view, the implied consent law is a very useful tool. It puts him into the position where once he has made a proper arrest of a drunk driver, he cannot fail to achieve a police-favorable result.

Implied consent is a police-oriented statute, and police responses seem to vary from mildly favorable to enthusiastic. Data supporting this include the slight initial increase in drunk arrests, the great increase in the number of persons tested, the change-over to approved testing devices in St. Louis, and the use of the revocation process by the police, where appropriate. As a matter of common sense, a positive police response to such a law is to be expected. Those officers who were interviewed favored the law, but also expressed serious doubts that it reduced the amount of drunk driving. There was optimism about their role as enforcers of the law but a characteristic pessimism about public response. The impact of the law on police morale is positive, but this alone has had no substantial effect on levels of enforcement.

The attitude of prosecutors is very similar to that of police. Implied consent eases the prosecutor's burden in two significant ways. First, when the test is taken, it makes obtaining convictions easier and discretionary decisions about which cases to prosecute much easier. Second, when the test is refused, revocation of the driver's license can ease pressure on the prosecutor to obtain a conviction, because sanctions have already been imposed on the errant driver. The prosecutors interviewed were in favor of the law, but like the police, they doubted its effectiveness in reducing drunk driving.

The implied consent law may have indirectly affected the emphasis on prosecution of drunk-driving cases in the St. Louis circuit attorney's office. Prior to May 1966, it was rare for any drunk-driving cases to be prosecuted by that office. These cases were left to the city prosecutor's office acting under the city ordinance. However, because of pressure which can be traced in part to the adoption of the implied consent law, the circuit attorney began to prosecute drunk-driving cases. This change may have had a discouraging effect upon the attitude of the police toward enforcing drunk-driving laws because it made the processing of drunk-driving cases more onerous.[22] Moreover, it does not appear that prosecutors have

22. *See, e.g.*, note 21 *supra*.

campaigned for a greater emphasis upon enforcement of drunk-driving laws.

In sum, administrative attitudes have an independent significance. They may influence the character of public response to a law, both by changing administrative behavior and by communicating to citizens the feelings of law enforcement officials about certain practices—often at a time when the citizen's decision on whether or not to cooperate with a particular practice is in the balance. In Missouri, the attitudes of administrators to the implied consent law seem moderately favorable, but only in Kansas City and in the Highway Patrol has this motivated extra police or prosecution efforts. Where attitudes toward enforcement of drunk-driving restrictions were favorable prior to the implied consent law, there is some evidence that the law has reinforced efforts to maintain high levels of enforcement. But the law, even if well received, is not sufficient to escalate enforcement where former levels have been low.

V. Public Response

A. *Generally*

This study sought to investigate two dimensions of the public response to implied consent in Missouri. First, data were sought that would bear on the reactions of those individuals who were arrested and put on the horns of the implied consent dilemma—in what proportions did they consent or refuse, what changes appear over time in the pattern of response? Second, data were sought that would bear on whether implied consent, interacting with other laws and enforcement practices, had any impact on the rate of drunk driving in the jurisdictions under study.

The most direct response to the implied consent law is the agreement or refusal to submit to the test. However, that part of the "public" which can make a response is only a small group—those arrested for drunk driving. This group is, for the most part, a segment of a larger group, that portion of the public who drives while intoxicated, which is still only a portion of the driving public. Thus, in discussing the "public response" it is important to remember that the "public" is really a group which varies in size (and representation) according to the response being considered.

The number of refusals which were reported and which resulted in license revocations is known for the period from the beginning of implied consent through May 1967. (See Table V.) The percentage of refusals is shown in Chart F. In both cities studied the refusal rate appears low for

the first month of implied consent. However, implied consent did not become effective until late in the first month. In St. Louis the proper equipment was not available until some time in January 1966, and in Kansas City the implied consent law was not law until the middle of October 1965. Thus in both cities during the first month, there was a period in which refusals could not be reported to Jefferson City for revocation. In the first full month of operation in both cities (February 1966 for St. Louis; November 1965 for Kansas City) the refusal rate was high (42% in St. Louis and almost 37% in Kansas City) compared to the next several months when the refusal rate drops. In Kansas City, however, the percentage of refusals remains fairly constant, ranging between a high of 33% and a low of slightly over 22%. In St. Louis, though after an initial decline to a low of 28%, the rate fluctuates between 51% and 32%. One might expect a high refusal rate immediately after the adoption of implied consent followed by a tapering-off of refusals as the system is worked out and after the constitutionality of the law has been established, and it is learned that licenses are revoked for refusing. However, in St. Louis, one year after implied consent, the refusal rate was higher than immediately after the law, while in Kansas City it had declined slightly.

The effect of refusal is the same in both cities: revocation of license. Also, in both cities there is the possibility of being convicted for drunk driving with the stigma and penalty such conviction entails. In St. Louis 49% of those who refused were reported to Jefferson City as being convicted of a drunk driving offense, whereas from Kansas City only 36.4% were so reported. However, as has been noted, the reported convictions from Kansas City are questionable, and it is likely the conviction rate of those refusing to take the test is higher than the reported convictions would show.[23] In addition, in Kansas City a greater percentage (11.6% as against 6.15% in St. Louis) of refusers are later reported to have been convicted of another traffic offense, such as careless and reckless driving, and it is likely that most of these convictions grew out of the arrest which led to the refusal to take the test, particularly since this group lost their licenses after refusal.

There is some difference in the consequences of conviction in the two cities. In Kansas City the conviction will almost certainly be in a city court where conviction carries only a six-point assessment against the driver and, therefore will not result in license revocation. In St. Louis some

23. *See* discussion in Part III, *supra.*

of the convictions will be in a state court (carrying a twelve-point assessment and automatic revocation), but the great majority will be in a city court. Since the driver has already lost his license by refusal to take the test, there is not much difference. However, in St. Louis, if a driver takes the test and fails, he is almost certain to be convicted and stands a good chance of being convicted in a state court. This has been true since mid-1966 when the circuit prosecutor began to seek drunk-driving convictions. In 1967 almost half of the convictions were in a state court.

The Kansas City alternatives are such that a driver risks less by taking the test than by refusing. In St. Louis, the risk of taking the test can be greater than refusing. Moreover, since the St. Louis test results show that nearly everyone tested was drunk, it is likely that those who refused were just as drunk—if not more so—than those who consented, and the high refusal rate in St. Louis may be due to the effort on the part of the refusers to avoid a conviction, at least a conviction of a state offense.

Despite the warnings and explanations given by the police, the arrested driver may view his choice to be between (1) taking the test and being convicted if he fails (and released if he passes), or (2) refusing the test and having his license revoked, but avoiding conviction. But this is faulty reasoning for this is not the choice facing the arrested driver: He may also be convicted even after refusing. If the driver views his choice to be between consenting and risking conviction on the one hand, and refusing and avoiding conviction (but losing his license) on the other, the more drunk a person thinks he is the more likely he will be to refuse. Since St. Louis arrests only the obviously drunk, this possible misunderstanding of the choice may increase the number of refusals, and since the likelihood of conviction does decrease on refusal, non-consent may also be rational in St. Louis.

It is interesting to note that the Missouri Highway Patrol figures indicate a much lower refusal rate than either St. Louis or Kansas City. For the years 1966 and 1967 the Highway Patrol reported 972 refusals to take the blood-alcohol test for a refusal rate of 10.3% when compared with 9,475 requests to take the breath test. This compares with a 27.9% refusal rate for Kansas City and a 37.1% refusal rate for St. Louis. One difference between the Highway Patrol and the various city police is that all of the Highway Patrol charges of drunk driving will be brought in state courts, and the Highway Patrol figures indicate that the great majority of those who refuse are charged with drunk driving. The chances of avoiding a state conviction by refusing are not so good when arrested by the Highway

Patrol. But the price of failing the test is higher than in Kansas City. It may also be true that the Highway Patrol is just more persuasive in obtaining consent than are the city police. This may be due to a difference of attitude on the part of the Highway Patrol toward the test. Several policemen in St. Louis expressed the view that a man "was a fool to take the test" (presumably because he would almost certainly provide evidence which would convict him of drunk driving). Other police, including Highway Patrolmen, have expressed exactly the opposite attitude, that a man "was a fool not to take the test" (presumably because it could provide evidence that would acquit him, and he would be no worse off for having taken the test—even if he fails—since he loses his license anyway). Whether these ideas are typical of the St. Louis police or the Highway Patrol is not known, but it is possible that the police officer's own attitude concerning the advisability of taking the test is intentionally or unintentionally communicated to the arrested driver and affects his choice.

The implied consent law was designed ostensibly to get drivers to submit to the test by providing a sanction for refusing. Yet the refusal and subsequent license revocation may be a desirable end result, in many cases perhaps even more desirable than the conviction obtained after a test failure. From an administrative point of view the refusal revocation is efficient and inexpensive. To an extent, the refusal becomes equivalent to a plea of nollo contendere as the driver agrees to the penalty of license revocation, and the possibility of his being convicted is reduced. If the driver were given the choice of refusing the test and losing his license but with no further prosecution, or of taking the test and risking prosecution, the refusal would be a sure form of nollo contendere and the taking of the test a means of achieving vindication.

B. *The Amount of Drunk Driving*

One purpose of the implied consent law is to reduce the amount of drunk driving by making the threat of conviction more meaningful, and by deterring people from driving while drunk by revoking their licenses and removing them from the road. Again, the "public" here is composed of those who drive while intoxicated and those who are potential drunk drivers. This group is larger than the group which is arrested and subjected to the test, but it is still smaller than the general driving population, though how much smaller is not known. Since 0.15% is the standard for being intoxicated, the group is probably small when compared to the general

driving population. To improve the efficiency of the processes of enforcement operating against this group would be of great benefit to the system. The smaller the group of potential drunk drivers in the population, the more likely it is that the group is quite different from the general driving population, and the response of the group to threats of prosecution and license revocation may not be that expected from "normal" citizens.

The Department of Revenue records indicate that a number of persons were convicted more than one time for drunk driving during the period January 1964 through April 1967. There were 138 persons who had more than one St. Louis drunk-driving conviction, and, assuming that each repeater had only two convictions, this would mean that these 138 persons were 7.62% of all persons convicted for drunk driving in St. Louis, and accounted for over 14% of all convictions. For Kansas City there were 512 repeaters who, again assuming each repeater is convicted only two times, constituted 14.22% of persons convicted for drunk driving in Kansas City and accounted for nearly 25% of all convictions! The difference in rate may be due to the more aggressive arrest practices of the Kansas City police. The number and percentage of repeaters who were caught and convicted in the period of slightly more than three years may indicate the drunk-driving population is made up, largely, of a number of persons whose drunk driving is not a single episode.

The theory of implied consent is that it makes the threat of conviction or of revocation more credible and takes more drivers who drive while drunk off the road and deters other drivers from driving while drunk. Thus, implied consent, or so the hypothesis goes, reduces drunk driving.

The difficulty in testing this hypothesis is that there is no reliable index for measuring the amount of drunk driving or for reflecting with any degree of sensitivity changes in the amount of drunk driving. In the earlier parts of this report, general accident figures and single car accident figures were used, but these are very crude indications of the amount of changes in drunk driving. The difficulty of finding a measure to reflect variations in drunk driving is compounded by the necessity of determining how that variable is related to drunk driving, which means that, before an index of drunk driving can be determined, it is necessary to have an index of drunk driving. For example, before variations in accident rates can be used with any degree of reliability as indicators of variations in drunk driving, it is necessary to know the relationship between drinking and accident statistics.

As previously indicated, arrests cannot be used alone as an indicator

of drunk driving since variations in enforcement occur from causes unrelated to the amount of drunk driving. When this study was begun it was hoped to use certain measures as control factors. It was assumed that one kind of case involving drinking that would come to the attention of the police without any or with very limited exercise of police discretion would be the accident in which drinking was a factor. It was hoped that the number of accidents in which drinking was involved would provide an index of fluctuations in the amount of drunk driving. But it was quickly discovered that this was unworkable because the police did not classify accidents according to those that, in their opinion, involved drinking; rather, such a classification acquired a secondary meaning—arrested for drunk driving—and thus the listing of accidents involving drinking was a matter of police discretion. Thus it became the policy in both St. Louis and Kansas City not to list an accident as such unless an arrest was made or a summons issued.

Another possible control was the indication of drunk driving involved in the reporting of fatal accidents. There is still police discretion but, since the fatal accident is a serious situation, there would be a tendency for the police to record drinking more accurately. If the driver involved in a fatal accident had been drinking, the officer would most likely want to arrest him. If the driver were dead, then there would be no discretion to be exercised in deciding to arrest and the entry could be made without worrying about its secondary meaning of arrest. However, drinking fatality figures also turned out to be unreliable. If the Haddon study figures are representative, the police were classifying very few drunk fatality cases. The 1967 Kansas City police annual report does not include drinking as a factor in any of the 86 traffic fatalities for that year, while the reports for prior years did mention drinking in connection with some fatalities. While it might be possible to check the individual police report on each fatal accident to see if there is any notation of drinking being involved, it is doubtful that the information gained would be worth the effort involved considering the underestimates found in the annual reports. Further, the number of fatalities is the smallest of accident samples, and consequently it is not reliably sensitive to changes in the amount of drunk driving alone. A substantial percentage change could be due to chance or other causes in city unit time comparisons. There is no easy way available to find out how large the drunk driving public is or how much drunk driving is done. A random sampling of motorists would violate constitutional rights for there is no constitutionally acceptable way to compel a random sampling of

motorists to submit to a breath or other test to determine if they are intoxicated. However, it might be possible to require every driver involved in an accident to submit to such a test, and this might be an effective measure. Waiving penalties would help to establish for experimental purposes the constitutionality of this practice, or an implied consent law covering all accidents could be tried.

A poll of drivers requesting that they report their own instances of drunk driving is possible, but there are reasons to doubt that the results would be reliable. Klette has conducted survey research on a sample of Swedish drivers.[24] While his data were both interesting and suggestive, basic validity problems remained to challenge the ingenuity of the social researcher. First, any such questioning requires an individual to make judgments about the level of his own intoxication at a prior point in time. This task depends on the adequacy of the person's memory and may be influenced by psychological processes which bias the driver's own perception of his behavior, not to mention his degree of intoxication at the time. Many individuals will be far less than candid about their behavior—even to the point of being unwilling to admit even in an anonymous interview situation to having been drunk. (Candor may well be a special problem with alcoholics.) Klette's findings, that only 3.5% of his sample reported instances of drunk driving within a year, leaves room for substantial suspicions about the existence of a credibility gap in the self-reporting of drunk driving. Further, if the drunk-driving population is relatively small, it would take a large sample to get a significant number of drivers who drive while drunk and an even larger sample to get a sufficient number of the even smaller group of those who drive while drunk and have been arrested. However, it might still be productive to do the best survey possible, but such a survey was beyond the scope of this study.

Rough measures such as accidents, single car accidents, fatalities, etc. are difficult to use, for in addition to the problems mentioned above, the variations in these figures can be due to factors other than drunk driving. It is reasonable to believe that single car accidents can be more closely correlated to drunk driving than accidents in general. Thus, comparing single car accidents to the general accidents could give some indication of the variation in the amount of drunk driving. The same approach could be

24. Klette, The Swedish Traffic Offender (1966 unpublished). *See also* Klette, *The Nordic Review of Criminal Criminal Science* 119 (1964), and Klette. *The Nordic Review of Criminal Science* 148 (1966). Both the published reports are not in the English language. The authors relied on unpublished English translations provided by Professor Klette.

made using fatalities and accidents. However, the use of accidents as a control for single car accidents or fatalities is questionable because the accidents should also vary with the same factor—drunk driving—as do single car accidents or fatalities, and an increase (or decrease) of drunk driving might affect both sets of figures in the same general fashion. Moreover, each set of figures may be correlated to other factors. Single car accidents may be closely correlated to driving conditions, icy roads, etc.; fatalities may be more closely tied to speeding than are the general accident figures. However, these rough measures were the best available for this study.

There are other possible measures which might have been used. If the impact of the law is to cut down on drinking and driving it might be possible to establish this by comparing the amount of drinking in public to drinking in private homes (bar receipts vs. liquor store receipts) or to note if there is an increase in taxi use on weekends. These rather indirect measures also suffer from the defect that a change in them can be due to a variety of causes other than the drinking habits of the driving public.

In addition to all of the difficulties mentioned, there is also the problem of the reliability of any records used. The reliability of arrest, accident, and other figures used in this study has already been discussed and there are shortcomings in these figures. Given the above disclaimers about adequate measures, what indications do the materials available give? The St. Louis figures show little if any indication of a change, which could be related to the implied consent law or which could be an indication of either more or less drunk driving. The number of accidents (as indicated by reports filed) shows a consistent increase year by year from 1964 through 1967. (See Chart G and Table XI.) The percentage of single car accidents (see Chart H and Tables XII and XIII) to total accidents varies between 9.43% in 1965 and 10.43% in 1967. The fatality figures for St. Louis show considerable variation from year to year. The number of fatal accidents (not fatalities) is 80 in 1964, 100 in 1965, 87 in 1966, and 101 in 1967. (See TableXIV.) The number of nighttime fatal accidents (9 p.m. to 4:49 a.m.) is 27 in 1964, 25 in 1965, 36 in 1966, and 35 in 1967. Presuming that nighttime fatal accidents would be more related to drunk driving than daytime fatal accidents, the percent of fatal accidents which occur in the nighttime is as follows:

1964	33.75%
1965	25.00%
1966	41.39%
1967	34.65%

TABLE XI

Accidents Reports Filed by Police

St. Louis

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	1324	1353	1531	1452	1593	1574	1677	1622	1580	1640	1570	1917	18,833
1965	1695	1558	1467	1512	2071	1584	1668	1833	1874	1675	1686	2170	20,793
1966	1568	1544	1493	1920	1826	1696	1870	1746	1855	1932	1908	1988	21,346
1967	1752	1480	1798	1950	2186	1875	1951	1879	1884	2184	1780	2365	23,084

TABLE XII

Accident Reports Indicating "Single Car" Accidents

St. Louis

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	141	142	141	160	166	174	152	188	126	141	142	180	1,853
1965	180	138	152	143	196	132	172	155	171	162	171	189	1,961
1966	170	135	136	201	167	157	171	183	213	218	195	224	2,170
1967	201	190	222	166	236	176	207	178	189	203	166	274	2,408

TABLE XIII

Percent Single Car Accidents of Total Accidents

St. Louis

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	10.65	10.50	9.21	11.02	10.42	11.06	9.06	11.59	7.97	8.60	9.04	9.39	9.84
1965	10.62	8.86	10.36	9.46	9.46	8.33	10.31	8.46	9.12	8.67	10.14	8.71	9.43
1966	10.84	8.74	8.11	10.47	9.15	9.26	9.14	10.48	11.48	11.28	10.22	11.27	10.17
1967	11.47	12.84	12.35	8.51	10.80	9.39	10.61	9.47	10.03	9.29	9.33	11.59	10.43
						Kansas City							
1964	9.41	10.07	9.90	10.80	10.22	9.54	8.93	10.27	8.65	9.17	11.44	9.68	9.84
1965	10.71	8.18	9.89	9.51	9.70	8.26	8.03	9.94	8.30	8.86	9.28	9.58	8.20
1966	9.49	9.27	11.77	10.81	10.09	9.74	11.95	9.26	11.61	9.56	10.16	9.52	10.26
1967	10.39	9.98	10.15	8.87	9.56	9.77	10.93	10.78	10.03	10.52	10.17	11.27	10.24

TABLE XIV

St. Louis - Fatal Accidents
Night (9:00 p.m.-4:59 a.m.) and Day (5:00 a.m.-8:59 p.m.)

		J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	night	3	2	0	3	1	3	2	6	2	1	2	2	27
	day	5	2	3	6	2	5	4	3	3	7	4	9	53
1965	night	3	2	2	0	3	0	4	2	1	3	2	3	25
	day	6	5	5	10	2	3	6	8	5	5	7	13	75
1966	night	1	2	0	2	6	4	4	6	1	6	1	3	36
	day	9	3	3	3	1	3	3	4	7	5	5	5	51
1967	night	2	2	2	1	4	5	2	5	3	1	3	5	35
	day	7	2	4	6	7	2	0	7	4	5	9	13	66

TABLE XV

Percent Night (9:00 p.m. - 4:59 a.m.) Accidents of All Accidents

St. Louis

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	27.64	25.13	27.30	26.67	27.43	25.02	28.60	28.91	27.59	25.24	26.56	29.16	27.17
1965	26.25	23.81	24.61	26.67	26.70	23.67	26.98	27.61	28.39	26.21	23.67	27.83	26.21
1966	25.32	24.06	21.97	27.50	26.89	26.24	26.47	29.80	24.42	28.36	26.83	25.85	26.24
1967	26.83	30.06	27.96	25.23	28.23	25.92	29.37	29.27	24.95	26.37	26.97	29.22	27.53

Kansas City

1964	(Monthly Figures Not Available)												20.16
1965													20.20
1966	21.24	16.75	25.07	22.51	18.74	18.64	20.47	20.99	21.60	20.95	17.82	18.69	20.24
1967	20.08	19.88	23.00	19.03	18.12	20.49	21.56	19.42	20.36	16.01	18.00	22.42	19.81

TABLE XVI

Accident Reports Filed by Kansas City Police

Kansas City

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	1658	1629	1627	1630	1897	1772	1746	1811	1583	1799	1853	2210	21,215
1965	1904	1796	1921	1692	1721	1865	1880	1941	1820	1952	1853	2318	22,663
1966	1591	2006	1895	2035	1894	1931	1925	1944	1843	1809	1919	2311	23,103
1967	1703	1343	1440	1703	1915	1884	1684	1771	1974	2224	1661	2360	21,670

TABLE XVII

Accident Reports Filed Indicating Single Car Accidents (collision w/fixed object, other object, overturned, ran off road, and other non-collision)

Kansas City

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	156	164	161	176	192	169	156	186	137	165	212	214	2,088
1965	204	147	190	161	167	154	151	193	151	173	172	222	2,085
1966	151	186	223	220	191	188	230	180	214	173	195	220	2,371
1967	177	134	147	151	183	184	184	191	198	234	169	266	2,218

TABLE XVIII

Single Car Accident (including collision w/parked car)

Kansas City

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	407	416	403	414	463	475	463	463	402	449	504	609	5,468
1965	494	427	472	424	463	419	476	506	441	591	438	584	5,735
1966	405	447	549	508	480	493	525	498	486	441	495	599	5,926
1967	471	383	374	395	463	476	455	467	477	523	416	640	5,540

Percentage Accidents which are Single Car (including collision w/parked car)

Kansas City

	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	24.55	25.54	24.77	25.46	24.41	26.81	26.52	25.57	25.39	24.96	27.20	27.56	25.77
1965	25.94	23.77	24.57	25.06	26.90	22.47	25.32	26.07	24.23	30.28	23.64	25.19	25.30
1966	25.46	22.28	28.97	24.96	25.34	25.53	27.27	25.62	26.37	24.38	25.79	25.92	25.65
1967	27.66	28.52	25.83	23.19	24.18	25.26	27.02	26.37	24.16	23.52	25.04	27.12	25.56

TABLE XIX

Fatal Accidents - Night (9:00 p.m.-4:50 a.m.) day (5:00 a.m.-8:59 p.m.)

Kansas City

		J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
1964	night	3	2	2	3	2	3	2	4	0	3	5	1	30
	day	1	7	5	2	2	6	7	4	2	4	4	3	47
1965	night	0	3	0	2	1	2	2	1	1	2	5	6	25
	day	3	1	3	4	3	4	4	3	5	1	2	4	37
1966	night	4	0	9	1	3	0	3	4	2	2	1	5	34
	day	3	5	2	3	5	4	13	5	5	6	9	4	64
1967	night	3	1	2	3	3	2	1	2	4	3	0	3	27
	day	1	2	3	2	6	5	3	6	6	4	5	5	48

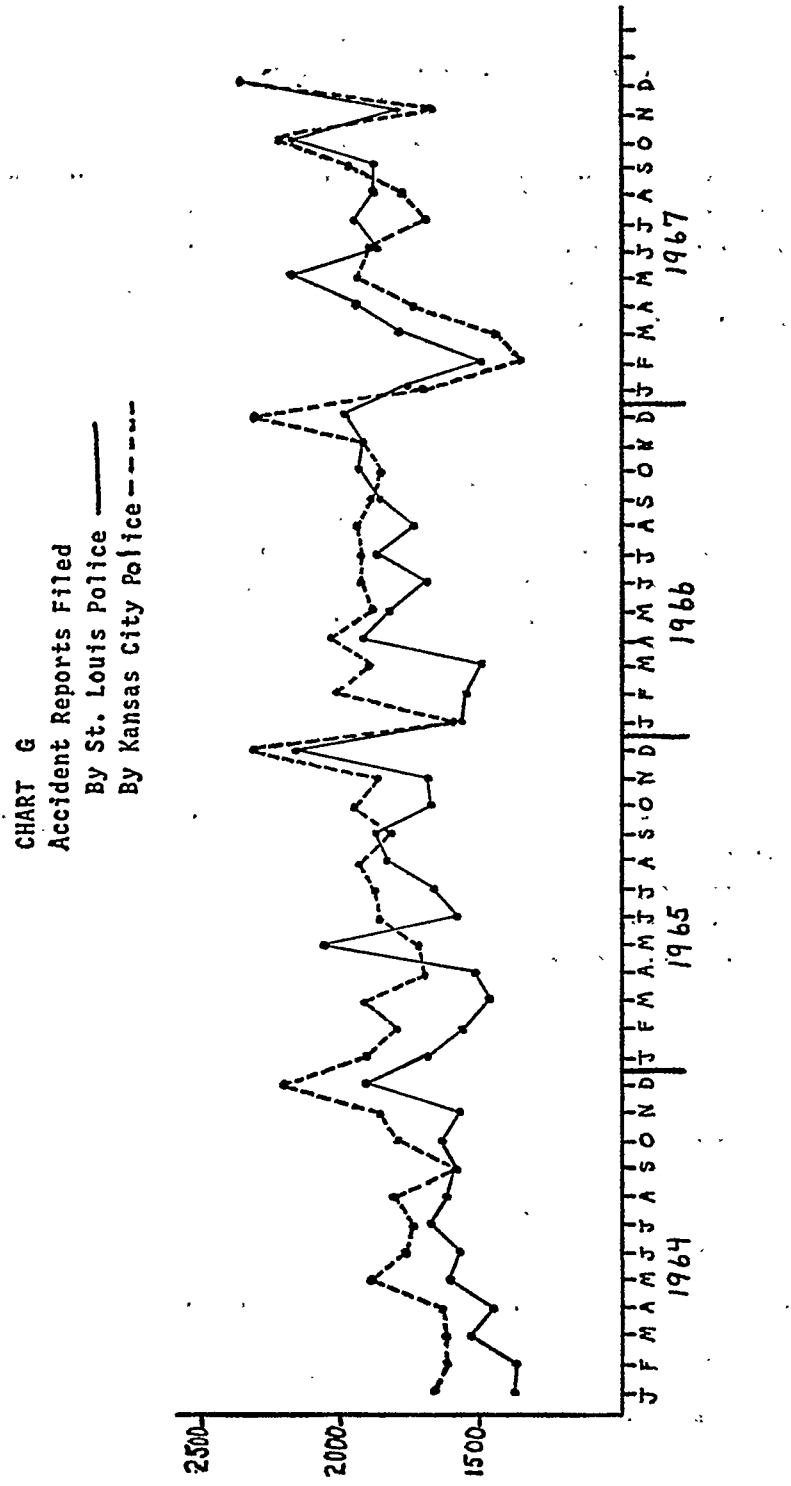


CHART G
Accident Reports Filed
By St. Louis Police
By Kansas City Police
2500
2000
1500
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1964
1965
1966
1967

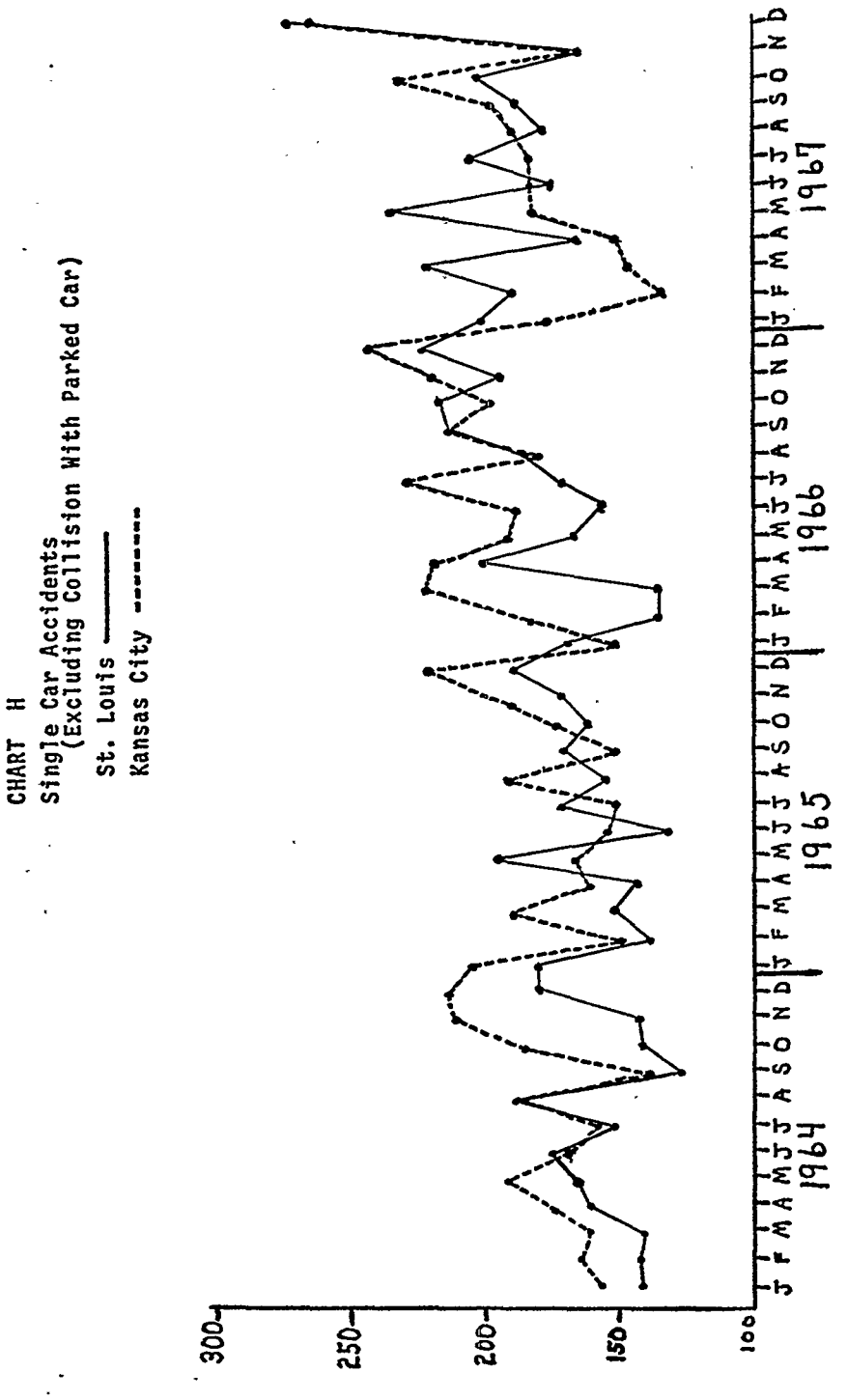
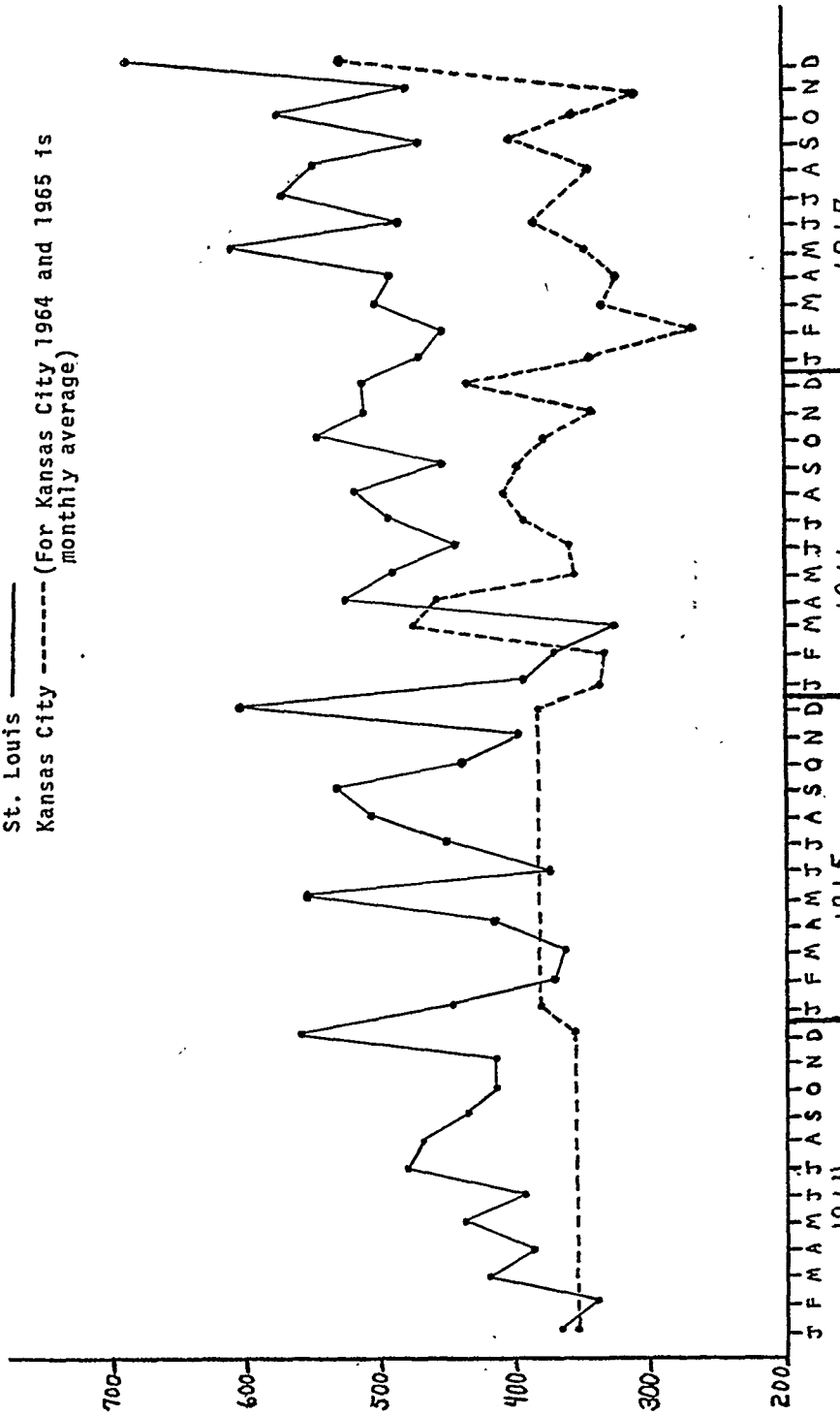


CHART H
Single Car Accidents
(Excluding Collision With Parked Car)
St. Louis
Kansas City
300
250
200
150
100
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
1964
1965
1966
1967

CHART I
Night Accidents (9 P.M. - 4:59 A.M.)
St. Louis ———
Kansas City -------(For Kansas City 1964 and 1965 is monthly average)



These percentages reveal no apparent trend or sign of change. It is interesting to note that the raw number of nighttime fatalities in St. Louis has remained fairly constant with a slight increase in the last two years. Most of the yearly variation in fatal accidents is in the daytime fatal accident category.

Nighttime accidents for St. Louis show the same pattern as total accidents and single car accidents. (See Chart 1 and Table XV) There is a perceptible increase over the four-year period. In St. Louis the percentage of accidents which are nighttime accidents is consistent:

1964	27.17%
1965	26.21%
1966	26.24%
1967	27.53%

The monthly percentage is also fairly constant ranging from a low of 24.06% in February 1966 to a high of 29.22% in December 1967. From these figures it is possible to conclude that if the implied consent law has had any effect on the amount of drunk driving in St. Louis, it is not apparent from using these measures.

The Kansas City figures do show some change. The accident reports filed (see Chart G and Table XVI) show an increase in accidents during 1964, 1965, and 1966 but a decrease in 1967. The 1967 totals are less than 1966 and 1965, and 1967 is the only year of the four in which Kansas City has fewer accidents than St. Louis. The single car accident figures (see Chart H and Table XVII) are similar with a pattern of steady increase from 1964 through 1966 and then a drop in 1967, especially during the first half of 1967. The percentage of accidents which were single car accidents (excluding collision with parked cars) shows a pattern similar to that of St. Louis. They vary from a low of 9.20% in 1965 to a high of 10.26% in 1966. There is, however, a slight decrease in the percentage of accidents which are single car accidents during the first six months of 1967, the time when the apparent decrease in accidents in Kansas City is the greatest. For the first six months of 1967 the percentage of single car accidents is 9.76% compared to 10.64% for the rest of 1967 and 10.21% for the first half of 1966. However, when "collision with parked cars" is added into the single car accident figure, there is much less difference during the first half of 1967 and the rest of the four-year period, 1964-1967 (see Table XVIII).

The fatality figures for Kansas City vary from year to year. The number of fatal accidents (not fatalities) is 77 in 1964, 62 in 1965, 98 in 1966,

and 76 in 1967 (see Table XIX). The per cent which are nighttime fatal accidents are as follows:

1964	38.96%
1965	40.32%
1966	34.69%
1967	36.00%

(excluding 1 for which the time is unknown)

The nighttime accident figures for Kansas City (see Chart I and Table XV) show a variation similar to that of total accidents. The monthly totals for 1964 and 1965 were not available and only averages are shown for those two years; 1967 shows the same drop as is found in the charts showing total accidents and single car accidents. The percentage of accidents in the nighttime are as follows:

1964	20.16%
1965	20.20%
1966	20.24%
1967	19.81%

There is very little variation from year to year although there is a drop in 1967. It is interesting to note that while Kansas City has more accidents (except for 1967) than St. Louis, Kansas City consistently has fewer (both in total number and percentage) nighttime accidents than St. Louis.

The Kansas City figures are also inconclusive in showing any change in the amount of drunk driving. There is a decrease in the number of accidents of all types in 1967 as compared with 1966, a decrease which is difficult to account for. It is more notable in the first half of 1967, and it is possible there is some correlation between this decrease and a decrease in the amount of drunk driving in Kansas City, but this is nothing more than a suspicion for the change may be due to other causes. One possible cause is that the Kansas City police department ceded jurisdiction over interstate highways in Kansas City to the Highway Patrol. This occurred in 1966 and may have affected the number of accidents reported by the Kansas City Police in 1967. On the other hand, since single car accidents decline more than total accidents figures, this may not be a complete explanation. It may be that the aggressive enforcement of the drunk-driving laws aided by implied consent is reducing accidents in Kansas City, but there is, as yet, no way of telling.

If the implied consent law does have any effect upon drunk driving, it could be through either general or special prevention. Special prevention

is the preventive effects of the sanction imposed as it operates on those who are arrested and tested. Even those who pass the test are aware that the threatened sanction is a real one. Those whose licenses are revoked or who are convicted (and some suffer both sanctions) are certainly aware that the threat of the law is one which will be carried out. Presumably, revocations both from refusals and convictions also result in these persons being removed from the highway for awhile. How effective the system is in keeping these persons from driving is not known. Some suspicion was expressed by the police, the prosecutors, and members of the staff of the Department of Revenue that drivers—the number unknown—were avoiding the effect of revocation by securing new driver's licenses using a different name. How widespread this practice might be, and how many persons are driving while their licenses are revoked is not known. However, the license revocations *must* result in some reduction of drivers thus deprived.

There could also be a general preventive effect. As the threat of enforcement against drunk driving becomes more cerdible with the implied consent law, the theory of general deterrence is that this threat will reinforce whatever other forces deter people from driving after drinking. The nature and existence of general deterrence is an area where a serious gap exists between what we know and what we ought to know, and this is true for the whole of criminal law and not just that proscribing drunk driving. It may well be that most drunk drivers (those who will test out at 0.15% or higher) are alcoholics or close to it, that they suffer from a compulsion to drink, which most drivers do not suffer from, and a compulsion to drive. It may be that general deterrence is not effective upon such a group and that even special deterrence is not of great significance.

Great Britain's experience with the Road Safety Act of 1967 casts some light on the adequacy of some measures of testing variations in drunk driving, and on the relevance of general prevention in drunk driving. Shortly after the effective date of a new British law redefining and making more credible that government's threat against drunk driving, and providing for breathalizer tests, total traffic fatalities and night fatalities decreased so dramatically on a national basis that it is difficult to deny the relationship between drunk driving and these events as an index of fluctuations of drunk driving.[25] With a sample that large and fluctuations that substantial, these measures have achieved at least a partial validation. Great Britain's

25. *See* Great Britain Ministry of Transport, press release March 8, 1968.

experience also indicates that drunk driving, as it is experienced there, is susceptible to general prevention strategies. Whether the difference between Britain's dramatic record and the inconclusive observations reported above relates to a difference in the intensity of countermeasures adopted against drunk driving or to a difference in the quality of the problem of drunk driving, or to a difference in the responsiveness of the populations, or to all three, is not known.

The results in both Kansas City and St. Louis make it difficult to conclude that the implied consent law had any effect on the amount of drunk driving. However, common sense tells us it is unlikely that the law had the effect of increasing drunk driving—it either reduced it or had little or no effect.

VI. Conclusions

The major purposes of this study were two-fold. The first was to examine the available records which might help measure the effects of implied consent, and to determine the adequacy of these records as a means of providing research data. The second was to attempt to determine, as far as the records would permit, the effects of adopting an implied consent law.

As to the first object:

1. More and better records are needed for meaningful research and to create conditions which make it possible for an administrative agency to inform itself about its own operations and to review its polices effectively. Police records, which provided most of the data, lacked precision, and in some instances, reliability. These deficiencies may be due to the transition from file to computer storage, but whatever the cause, more consistent monitoring of records is needed.

2. Meaningful research into the effects of policies aimed at the reduction of drunk driving requires an accurate index of drunk driving. There is none at present. Acquiring such an index should be a high priority aspect of any future research. Validity is a serious problem. Recent experience suggests that fluctuation in fatal accidents in a short-run situation may be a valid measure of fluctuations in drunk driving. Sensitivity is a second problem. Fatalities are statistically few, and the number varies independently of drunk drving. Research could be directed at investigating the role of alcohol in nonfatal single car accidents occurring at night in the hope of developing an index of fluctuations in drunk driving. Other measures, such as tavern receipts, etc., might prove fruitful but are speculative exercises

at this time. A substantial commitment of resources toward finding measures of fluctuations in drunk driving is merited by the need. Laws requiring those involved in accidents to submit to blood-alcohol tests on pain of license revocation would make research of this kind much easier, even though this might depress by itself the level of drunk driving. In addition, there is an obvious problem of an additional encroachment on individual freedom both from the constitutional and moral aspects. If proper testing equipment is available, the degree of the encroachment can be small, and the selection of the group to be tested does not appear unreasonable in view of the usefulness of the information gained in reducing the amount of drunk driving.

As to the second object:

1. We have compared two divergent implementations of implied consent laws. In Kansas City, individuals suspected of drunk driving are not frozen into police statistics in ways that would make the police hesitant to arrest the apparently drunk as opposed to the clearly drunk driver. In St. Louis, drivers are frozen into police statistics, testing is centralized, and the police are apparently much more hesitant about invoking the process. Centralization of testing, among other things, increases the cost per test to the enforcing agency and the driver affected.

Great Britain's system carries the logic of decentralization, screening, and minimum cost much further than either the Kansas City or St. Louis systems. Portable breathalizer kits are carried by the police and used in the field as a preliminary screening device. If an individual fails this test, he is arrested and urged to have a more accurate blood test taken at a police station. This kind of preliminary screening is worthy of serious consideration. Even in Kansas City, where testing is decentralized, there is a substantial police resource cost associated with each test. One of the principal drawbacks of the Kansas City testing procedures as a screening device is the police and citizen time cost per test. If portable instruments can effectively screen drivers in the field, it would be wise to use such field tests to determine who should be subjected to further and more reliable tests.

The implied consent law could be rewritten to cover both types of tests. To the extent that the cost in time of present testing is a deterrent to a more aggressive police policy on drunk driving, the implementation of portable field tests could be expected to encourage more stopping and testing of drivers. The evidence of short term success of the British program in reducing measures of drunk driving cannot be reliably extrapolated,

however, so as to make similar claims about the imposition of field testing in the United States. In the first place, it may be that our constitutional standards for arrest are higher than those set by the Road Safety Act of 1967 for Great Britain. It may also be that they are not. This is a difficult year to predict just what the minimum constitutional standards for police intervention will be in the area of drunk driving. In the "stop and frisk" cases, the United States Supreme Court[26] qualified the traditional requirement that a police officer must have probable cause before stopping an individual and subjecting him to a search. The Court approved cursory searches for weapons on less than probable cause where that practice can be considered reasonable in view of the necessity for police self-defense. It might be that the court would uphold field testing for drunk driving on less than probable cause to arrest. Certainly, the less the time and cost of a particular device used for police screening, the more likely it would seem that stopping drivers to use the device would not be considered "unreasonable."

Secondly, Great Britain's general population, its population of drivers, its population of drinkers, and its population of those who are likely to drive after drinking could be very different from the corresponding groups in the United States.

In the third place, there are indications that traffic accident and fatality patterns in Great Britain are different from patterns in the United States. The per million mile fatality rate in Great Britain is significantly higher than that of the United States. While a number of factors—chiefly road congestion and differences in highway engineering—might explain those differences, it could not be assumed that drastic changes in drunk-driving enforcement in this country would cause changes of the same magnitude as those noted in Great Britain.

The British experience, however, is consistent with the finding of a difference between the Kansas City and St. Louis implementation of implied consent. Field testing, the minimization of test costs, and the use of chemical tests as a screening device appear to be an attractive extension of the nascent testing regime under implied consent in Missouri.

2. Implied consent laws make the administration of drunk driving laws easier. The law can be considered as an adjunct of the criminal control process, or conceivably, it could be used in regulatory systems which de-

26. *See* Terry v. Ohio, 390 U.S. ——, 88 S.Ct. 1868 (1968); Sibron v. New York, 390 U.S. ——, 88 S.Ct. 1889 (1968).

pend upon license revocation as a first line of defense. Because revocation upon refusal is automatic, the refusal-revocation mechanism becomes to some extent an independent administrative system. The implied consent law guarantees that the arrested drunk driver will lose his license, or be convicted, or both. The law has also introduced a measure of science to most criminal drunk-driving cases, and thus made the administration of law easier for police and prosecutors. The principal costs of the system are the time spent by the police and the citizens. Reducing these costs by shortening the processing time of drunk drivers, would result in substantial savings of the already scarce police resources and would make broader enforcement more attractive.

3. There is no concrete indication that the implied consent law, alone or in conjunction with other policies, reduced drunk driving below levels which would have been experienced in the absence of implied consent. There are some indications that Kansas City outperformed St. Louis, because its relative accident experience improves over the period covered by the study, but this cannot be attributed to any particular factor.

4. The refusal-revocation system is a potential administrative substitute for the use of the criminal process in dealing with drunk drivers. We can imagine a system in which an individual loses his license for a year by administrative revocation upon refusal to take the test and suffers the same penalties if he takes the test and fails it. Such a system would lose whatever extra measure of deterrence is achieved by the other criminal penalties now threatened. Such a system might however, encourage a lower blood alcohol point of failure and broader enforcement. This administrative system would depend upon an essential assumption shared with the criminal process: that license revocation is an appropriate sanction and preventive measure in the area of drunk driving control. So very little is known about the effect of various countermeasures that the assumption that this or any other strategy is effective is largely a matter of faith. There is an immediate need to find out whether such faith is justified. In sum, implied consent helps to rationalize the administration of a process whose central tenets remain unexamined and unproved. Given present information about the magnitude of the problem of drunk driving, and the present assumptions about appropriate drunk-driving policies, implied consent is a modest improvement and seems worth its cost.