Of the 49,201 violations listed in Table VII, 16-year-olds accounted for 1,883 violations: 619 violations -- reckless driving (32.873 per cent); 467 violations -- speeding (24.801 per cent); and 278 violations involved disregard of traffic control devices (14.764 per cent). Seventeen-year-old drivers experienced a similar relationship of violations: careless or reckless driving -- 26.811 per cent; speeding -- 29.811 per cent; and disregard of traffic control devices -- 15.505 per cent. It may be interesting to note that careless or reckless driving violations show a steady decline as a percentage of violations for each age group, through age 64. Only 13.196 per cent of violations involved careless or reckless driving for the 55 to 64 age group.

The outstanding violation reported by the State Patrol for drivers 18 to 34 appears to be speeding, accounting for over 30 per cent of the violations of drivers in this age category.

In general, older drivers do not have an outstanding type of violation, at least in relation to the violations reported for younger drivers. For instance, violations reported for drivers ranging in age from 55 to 74 appear to fall into five categories, with over 14 per cent of violations reported for improper passing; over 13 per cent for reckless driving; over 16 per cent for disregard of traffic control devices; and over nine per cent for speeding and driving left of center.

Summary of Colorado Accident and Violation Data

Colorado accident and violation data compiled for calendar year 1963 indicates that male drivers, 18 to 19 years old, are involved in more accidents and violations per person than other drivers; male drivers 16 and 17 years old account for the second highest accident-prone group in relation to the total population; and the third highest accident-prone group is the 20-24 year age group. After age 24, the relative frequency of violations and accidents for male drivers drops significantly.

Female drivers, of comparable age, have achieved a much lower accident and violation rate than their male counterparts. The accident rate for female drivers also declined substantially from age 16, at least in relation to the population of various age groups.

Frequency (per cent) of motor vehicle accidents for various age groups apparently is similar from 5:00 a.m. to 8:00 p.m. in the evening, while the later hours, 9:00 p.m. to midnight, had a high percentage of accidents of younger drivers in 1963. Also, drivers age 20 to 24 were involved in over 10 per cent of their accidents after midnight. Accidents after midnight for other age groups amounted to less than eight per cent of their respective accidents.

Three factors appear to dominate 1963 Colorado motor vehicle accident data in relation to circumstances contributing to accidents -- 1) speed; 2) drinking; and 3) failure to yield the right-of-way. Excess speed apparently is the dominant factor contributing to vehicle accidents involving drivers under 24 years; drinking is the most significant factor leading to accidents of drivers age 25 to 54; and failure to yield the right-of-way is a common factor in accidents involving drivers over 55.

Practices In Licensing Young Drivers

Minimum Ages

Table VIII contains a brief description of minimum age requirements for motor vehicle driver licenses in all 50 states. Generally, age 16 is the minimum age teenagers are permitted to obtain regular motor vehicle licenses to operate vehicles on public highways; however, there are a few exceptions. For instance, North Dakota may issue a driver license to a 13-year-old, if need is shown by the parents. In Texas, a 14-year-old may obtain an unrestricted license if conditions exist which make it necessary, or if the 14-year-old satisfactorily has completed a state-approved course of driver education. Other states issuing restricted licenses or beginner permits to 14-year-olds include: Florida, Iowa, Kansas, Michigan, Oregon, South Carolina, South Dakota, and Wisconsin. A minimum age of 15 is permissible in six states: Hawaii, Louisiana, Mississippi, Montana, Virginia, and Wyoming. Of these states, parental consent is required for minors in Hawaii (under 20 years of age), Montana (under 18, license also provisional until age 21), Virginia (under 18), and Wyoming (under 21). Another five states do not issue regular or nonrestricted licenses until age 17 or 18: Maine, age 17 (at age 15 a restricted license may be issued for travel to and from school); New Jersey, age 17 (a restricted license may be issued at age 16 for agricultural purposes); New York, age 18 (must be 21 years of age to drive in New York City); Pennsylvania, age 18 (junior license, age 16; prohibits driving between midnight and 5:00 a.m.); and Massachusetts (junior license may be obtained at age 16; prohibits driving between 1:00 a.m. and 5:00 a.m.).

Types of Restrictions

Although the vast majority of states issue vehicle licenses to teenagers, 18 years old and under, a number of these states provide additional conditions for the teen-age driver not required of adult drivers. For instance, eighteen states (Alaska, Arizona, Arkansas, Colorado, Florida, Hawaii, Illinois, Kentucky, Maine, Maryland, Massachusetts, Michigan, Montana, Nevada, North Carolina, Pennsylvania, Virginia, and Wyoming) require parental consent, in some form, prior to the issuance of a motor vehicle license. Another twenty-five states require provisional licenses -- COLORADO (until age 17), Connecticut, Florida, Georgia, Idaho, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Montana, New Jersey, New Mexico, New York, North Dakota, Ohio, Oregon, Pennsylvania, South Carolina, South Dakota, Texas, Vermont, Virginia, and Wisconsin -- or place some other type of restriction on the motor vehicle licenses issued to persons under 21. Still other states require teenagers to complete driver education courses -- Connecticut (ages 16-18), Idaho (14-16), Michigan (under 18), North Carolina (16-18), Pennsylvania (17), Texas (14-16), and Utah (15½).

Table VIII

SURVEY OF STATE MINIMUM AGE REQUIREMENTS TO OPERATE A MOTOR VEHICLE*

State	Min. Age To Operate Motor Vehicle	Restricted License			Learner's Permit	
		Parents Consent	Junior or Provisional	Complete Cert. Training Course	Min. Age	Required
Alabama	16	---	---	---	15	X
Alaska	16	Under 18	---	---	---	---
Arizona	16	Under 18	---	---	---	X
Arkansas[1]	16	Under 18	---	---	---	X
California	16	---	---	---	15½	---
COLORADO[2]	16	Under 17	16	---	16	X
Connecticut[3]	16	---	Under Age 21	16-18	---	---
Delaware	16	---	---	---	---	X
Florida	16	14-18	14	---	---	X
Georgia	16	---	15	---	15	X
Hawaii	15	Under 20	---	---	---	X
Idaho	16	---	14	14-16	---	X
Illinois	16	Under 18	---	---	---	X
Indiana[4]	16-one mo.	---	---	---	16	X
Iowa[5]	16	---	14	---	14	---
Kansas[6]	16	---	14	---	---	X
Kentucky	16	Under 18	---	---	---	X
Louisiana	15	---	---	---	---	X
Maine[7]	17	Under 18	15	---	---	X
Maryland	16	Under 21	(Under 21 proof of financial responsibility)			X
Massachusetts[8]	18	Under 18	16-18	---	---	X
Michigan[9]	16	Under 18	15	Under 18	---	---
Minnesota[10]	16	---	16-21	---	---	X
Mississippi	15	---	---	---	---	X
Missouri[11]	16	---	---	---	---	---
Montana	15	Under 18	License provisional until age 21		---	X
Nebraska	16	---	---	---	14	X
Nevada	16	X	---	---	15½	X
New Hampshire[12]	16	---	---	---	15	---
New Jersey	17	---	Age 16 - Agricultural purposes		---	X

Table VIII
(continued)

State	Min. Age To Operate Motor Vehicle	Restricted License			Learner's Permit	
		Parents Consent	Junior or Provisional	Complete Cert. Training Course	Min. Age	Required
New Mexico[13]	16	---	16	15	15 2/3	X
New York	18	---	16	17	---	X
North Carolina[14]	16	Under 18	---	16-18	---	---
North Dakota[15]	16	---	13	---	---	X
Ohio[16]	16	---	16-21	---	---	---
Oklahoma[17]	16	---	---	---	15½	X
Oregon	16	---	14	---	15	X
Pennsylvania[18]	18	16-18	16	17	---	X
Rhode Island[19]	16	---	---	---	---	X
South Carolina[20]	16	---	14	---	14	---
South Dakota	16	---	14	---	---	X
Tennessee	16	---	---	---	---	---
Texas[21]	16	---	14	14	---	X
Utah[22]	16	---	---	15½	---	X
Vermont	16	---	16	---	---	X
Virginia[23]	15	15	15	---	---	X
Washington	16	---	---	---	---	X
West Virginia	16	---	---	---	---	X
Wisconsin[24]	16	---	14-16	---	---	---
Wyoming	15	Under 21	---	---	---	---

* Source: Digest of Motor Laws, 1964, published by American Automobile Association.

1. Arkansas -- Age 14 to 16 license issued but must be accompanied by licensed adult.
2. Colorado -- Learner's permit may be issued to students in high school driver education class at age 15½.
3. Connecticut -- May provide evidence taught by parent or guardian 5 years preceding date of certificate in lieu of driver training course.
4. Indiana -- Minimum age 16 years, one month, if driver education course completed; other, 16 years 6 months.
5. Iowa -- School license and instruction permit issued at age 14.
6. Kansas -- Restricted license operator may drive motor vehicle between 7:00 a.m. and 7:00 p.m.
7. Maine -- Minimum age of 15 for restricted license to and from school.

Table VIII
(continued)

8. Massachusetts -- Junior permit prohibits driving between 1:00 a.m. and 5:00 a.m.
9. Michigan -- Restricted license for one year at age 14 or 15. May operate between 7:00 a.m. and 7:00 p.m. if necessary for farm operations.
10. Minnesota -- Agricultural worker may obtain license at age 15.
11. Missouri -- May operate vehicle under school supervision at age 15.
12. New Hampshire -- May operate vehicle under school supervision at age 15.
13. New Mexico -- Provisional license issued age 16; issued at age 15 if driver education course graduate.
14. North Carolina -- Minimum age for chauffeurs hauling property -- 18; for chauffeurs hauling passengers -- 21. Also, new drivers cannot operate on highway without permit.
15. North Dakota -- Restricted license issued at age 13 when need shown by parent.
16. Ohio -- Restricted license issued at age 14 in hardship cases.
17. Oklahoma -- Driver education students may obtain learner's permit at age 15½.
18. Pennsylvania -- Junior drivers prohibited driving midnight through 5:00 a.m., unless accompanied by parent.
19. Rhode Island -- Applicants under 18 years must complete 30-hour driver education classroom courses provided by registry.
20. South Carolina -- Restricted license may drive between hours of 6:00 a.m. and 6:00 p.m.
21. Texas -- May issue license at age 14 if absolutely necessary or if completed state-approved course of driver education.
22. Utah -- Minimum age 15½ if approved driver education course completed.
23. Virginia -- License may be issued at age 15 with parental consent. Some cities and counties prohibit operation under age 16.
24. Wisconsin -- May issue junior permit at age 14 if need is proven.

Psychological Factors Involved In Traffic Accidents

On May 29, 1964, Dr. John Conger, Dean, Colorado School of Medicine, met with the committee to discuss the relationship of psychological factors to traffic accidents. An excerpt from the committee minutes of May 29th summarizing Dr. Conger's presentation appears below.

"Dr. John Conger, Dean, Colorado School of Medicine, stated that accidents are the complex results of many variables; however, in most instances, the individual is the most significant problem. For instance, he continued, a study of a selected group of military personnel between 18 and 23 years of age revealed the following:

1) The young men were subjected to a number of psychological, physiological, and psycho-physical tests involving depth perception, reaction time, heart, respiration, intelligence, reaction under stress situations, personality factors, etc. Following a comparison of driving records and test results, the study team concluded that physical factors are far less important than attitudes in causing automotive accidents.

2) Two composite personality sketches could be determined for accident-prone drivers and safe drivers. For instance, individuals achieving excellent driving records tended to have conventional values; a clear notion of goals; respect for others; accepted by their associates; and underlying anger and hostility problems usually are compensated by overly strong needs for conformity and overly strong needs to placate their associates. On the other hand, high accident rate types may tend to be unconventional; self oriented; unaware or insensitive to rights of others; and encounter difficulty in controlling anger, resulting in verbal aggression; preoccupation with own fantasy world; etc.

"Although further research on psychological factors involved in traffic accidents is needed, a few statements may be made, Dr. Conger said:

1) The individual must never permit the routine of driving to make one insensitive to his responsibilities, which means the individual must not drive when drugged, overtired, or following the consumption of alcohol.

2) An individual should not drive when worried about personal problems, especially if he has a tendency to daydream.

3) If the individual is preoccupied, he is more likely to have an accident.

"At this time, Dr. Conger cautioned the committee on the effectiveness of psychological tests, indicating that they may be useful in selecting safe drivers, but if the tests are to be used for purposes of restricting the issuance of licenses, attention must be given to the fact that no psychological test is 100 per cent accurate. Psychological tests do not offer a simple solution for elimination of highly accident-prone drivers, he concluded; however, the tests may be an effective tool in evaluating persons achieving a significant number of violations."

In general, accident avoidance may involve a knowledge of risk potential, constant alertness to the external environment, a capacity to act intelligently and the desire to do so. A breakdown of these processes may result when an individual is emotionally disturbed, either temporarily or chronically, by anxiety, anger or depression, or over-exhilarated by joy or excitement. Perhaps expanded safety education for children and adults may tend to foster attitudes that may minimize potential accident situations.[1]

1. Encyclopedia of Mental Health, A Deutsch Ed. New York: Watts, 1963

"Implied Consent"

What is "implied consent," at least, as it pertains to motor vehicle laws? Generally, "implied consent" simply means that any individual who is licensed to operate a motor vehicle upon the highways of a state, and is arrested for driving while under the influence of alcohol, automatically consents to a chemical test to determine the alcohol content of his or her blood. Of course, a person may refuse to participate in a chemical test; however, refusal to submit to a chemical test may result in suspension of the individual's driver license.

Need For Implied Consent Legislation

Accident Records of Persons Under the Influence of Alcohol. "In general, the recent evidence suggests that alcohol is causally related to about 50 per cent of fatal accidents in the United States. This revised estimate is based on the frequency with which high (0.15 per cent and greater) levels of blood alcohol have been found at autopsy:

a. When large proportions of the drivers and pedestrians killed in accidents in various jurisdictions have been tested.

b. When alcohol determinations have been made on all, or nearly all, the drivers killed in particular geographic areas in specific types of accidents which can largely be presumed driver-caused (e.g., single vehicle, non-pedestrian accidents).

c. In a successive series of fatal accidents, comparing blood alcohol levels of drivers killed in accidents for which they were responsible, with those of drivers killed but not responsible, and of unknown responsibility."[2]

A Toronto study conducted by H. W. Smith and R. E. Popham, reveals a significant relationship between the motor vehicle accident hazard and the per cent of alcohol in a person's blood.[3] For instance, if the blood alcohol content is between 0.10 and 0.15 per cent, the probability of causing an automobile accident appears to be 2½ times greater than for individuals with 0.00 to 0.05 per cent blood alcohol content. Furthermore, the probable accident rate for persons with a blood alcohol percentage of over 0.15 may be 9.7 times the rate for individuals with less than 0.05 per cent alcohol in their blood.

2. McFarland, Ross, "Alcohol and Highway Accidents," Traffic Digest and Review, Traffic Institute, Northwestern University.
3. "Blood-alcohol Levels in Relation to Driving," Canadian Medical Association Journal, Vol. 65, 1951, pages 325-328.

A recent Indiana study reveals a similar correlation between blood alcohol levels and accident hazard. Of particular interest concerning the findings of the Indiana study is the drop in the accident rate for drivers with a blood alcohol content of between 0.01 and 0.03 per cent.

"The relative probability of causing an accident necessarily starts at 'one' for the no alcohol class. As the alcohol level increases, the curve falls until a low of about 0.6 is reached at the 0.03 per cent alcohol level. Based on the data collected and the method of analysis used, subjects with blood alcohol levels of 0.03 per cent are about one-third less likely to cause accidents than alcohol free-drivers. As the blood alcohol level continues to increase beyond 0.03 per cent, the relative probability of causing accidents starts to increase.

"Subjects with blood alcohol levels close to 0.04 per cent are about as likely to cause accidents as completely sober drivers. When an alcohol level of 0.06 per cent is reached, the estimated probability of causing an accident is double that of a driver from the no alcohol level group. Drivers with 0.10 per cent blood alcohol level are more than six times as likely to cause an accident as one with no alcohol. When the 0.15 per cent alcohol level is reached, the probability of causing an accident is increased to more than 25 times."[4]

Difficulties of Identification. "Identification of the drinking driver is difficult. When an officer contacts a driver whom he suspects of being under the influence, he must assure himself that the suspect is actually under the influence to a degree that makes him a hazard on the highway. If the officer is so assured, he then must obtain evidence to be presented in court which will convince the judge and jury, as the officer himself was convinced, that the driver was in fact under the influence of intoxicating liquor.

"A number of factors make this identification difficult. First, the appearance and actions of the suspect must be different from those of a normal, sober person. When appearance and actions are clearly abnormal, it must be ascertained that the abnormality is caused by alcohol. There are some 64 pathological conditions producing symptoms which are the same or similar to those of alcoholic intoxication. The officer must be certain that the suspect's condition is due to an alcoholic intoxicant and not due to an illness, injury or drug. Second is the legal definition of the condition or the degree of intoxication at which a person is considered to be 'under the influence.' In general, appellate courts have held that any degree of impairment of physical or mental capabilities should be considered as 'under the influence.' Since it is obviously impossible for the apprehending officer to know each person's capabilities and actual fitness when sober, prior to apprehension, the officer must compare the suspect's condition with what he individually considers as normal. This results in a lack of uniformity in the apprehension of drinking driver suspects. One officer with a particular background of training and experience might fail to arrest a suspect whom another officer with a different background would

4. Borkenstein and Crowther, "The Role of the Drinking Driver In Traffic Accidents," Traffic Digest and Review, Traffic Institute, Northwestern University, page 7.

arrest, both officers being completely honest in their opinions of the condition of the suspect. There is no rule of thumb test by which any police officer, or any doctor for that matter, can look at a suspect and say positively in every case that he was or was not under the influence of intoxicating liquor."[5]

Difficulties of Prosecution. "The difficulties of prosecuting the drinking driver are many. There is no assurance that the verdict will be 'guilty as charged' even though the officer presents evidence that (1) there was the odor of an intoxicating beverage on the breath and about the person of the defendant; (2) his speech was slurred and incoherent; (3) his face was flushed; (4) he staggered and weaved when walking; (5) he admitted having had 'two beers'; (6) and perhaps most important, his driving was erratic and he committed one or more violations of traffic regulations (7) he was belligerent, and (8) evidence of the many other factors which led them to believe that he was under the influence of intoxicating liquor. While police officers usually lean over backwards to be sure that the suspect is sufficiently impaired, they can be wrong. As mentioned above, sickness, injury, or medication can produce symptoms similar to those of alcoholic intoxication. These defenses are frequently claimed improperly and the result is the same as though the person were so affected."[6]

Chemical Tests

Methodology. "The various parts of the body take up the alcohol in proportion to their water content. The brain, liver, and blood have the same fraction of water content and, therefore, hold about the same per cent of alcohol. Urine, saliva, and spinal fluid, having a higher water content, hold a higher per cent of alcohol. The decrease of alcohol in the body which takes place because of oxidation and excretion occurs at practically the same rate thoughout the body.

"The intoxicating effect is produced by the alcohol stored in the brain; the degree of intoxication is thus proportional to the per cent of alcohol stored there. Since the relation of alcohol in other parts of the body to that in the brain remains constant, the per cent of alcohol in the brain can be determined by measuring alcohol in other parts of the body. Thus a determination as to the per cent of alcohol in the brain is made possible by testing other body materials. The body substances most commonly used are blood, urine and breath, although saliva may be used."[7]

Blood Test. Briefly, the blood test may provide the most accurate measure of the relative alcohol content of the brain. However, a serious drawback to administering a blood test to persons charged with driving while under the influence of alcohol is that the test requires the services of a physician or a trained technician to obtain a sample of the blood. Consequently, motor vehicle officials have turned to other means for determining the alcohol content of a defendant's body.

5. Public Memo 29, National Safety Council, October 1957.
6. Ibid.
7. Interim Report of the New York State Joint Legislative Committee on Motor Vehicle Problems, "Chemical Tests for Intoxication," page 27.

Saliva Test. As previously mentioned, alcohol may be found in proportion to the water content in a person's body. Since the water content of saliva is higher than for blood, the alcohol content also is greater.

Urine Tests. Urine tests may not be as accurate as other chemical tests for alcohol content for two reasons: 1) the higher water content in a sample of urine compared with other parts of the body; and 2) alcohol may be stored in the bladder of a person for an indefinite period, and, of course, before the alcohol reaches the bladder it must be filtered from the bloodstream through the kidneys.

Breath Tests. The Committee on Tests for Intoxication, National Safety Council, reports that the reliability of breath tests -- Drunkometer, Intoximeter, and Alcometer -- in relation to blood tests has proved satisfactory. Results of the committee's study indicate that a maximum deviation of 0.015 per cent in the blood alcohol content may exist between blood and breath tests. Since the individual's response to alcohol may be far in excess of the error in chemical analysis, the 0.015 per cent deviation may not be significant.[8]

The provisions of the Colorado statutes on chemical tests (13-4-30(2), 1960 Perm. Supp. to C.R.S. 1953) are similar to the Uniform Vehicle Code; however, in May of 1962, the Uniform Vehicle Code lowered the maximum level of 0.15 per cent alcohol content to 0.10 per cent. The lower standard is based, at least in part, on recommendations of the American Medical Association.

Generally, chemical test legislation has been adopted in 38 states, including Colorado. Of these states, all but three -- North Carolina, North Dakota, and New York -- have the same maximum level for alcohol content as Colorado, i.e., a blood alcohol content of 0.15 per cent. The other three states have adopted the same standard as the Uniform Vehicle Code, or a level of 0.10 per cent alcohol content.

Implied Consent Legislation

Implied consent legislation has been adopted in twelve states-- Connecticut, Idaho, Iowa, Kansas, Minnesota, Nebraska, New York, North Dakota, South Dakota, Utah, Vermont, and Virginia. New York was the first state to adopt an implied consent law (1953), and the states recently adopting implied consent legislation include Connecticut and Iowa, both in 1963. Also, implied consent legislation has been introduced in another 24 state legislatures, including Colorado.

Connecticut Law. Perhaps the Connecticut law may illustrate what other states are incorporating in implied consent legislation. For instance, the Connecticut law provides:

"....refuses to submit to either a breath or blood test, at the option of such person, the test shall not be given, but if the court or jury, upon request finds that such person was operating such motor vehicle, the motor vehicle commissioner shall suspend or revoke his

8. Evaluating Chemical Tests for Intoxication, National Safety Council, page 10.

license or nonresident operating privilege, the terms and conditions of which shall be determined by the commissioner of motor vehicles. The provision of this section shall not apply to any person whose physical condition is such that, according to competent medical advice, such test would be inadvisable..."[9]

The Connecticut law also requires that in the event a chemical test is administered, a copy of the test result must be mailed to the defendant; the test must be given according to instructions and materials approved by the department of health; the testing device must be checked for accuracy; the defendant must be given an opportunity for a an additional test; and additional evidence must be presented at the hearing on the question of whether the defendant was driving while under the influence of alcohol.

Iowa Law. The Iowa law (1963) is quite similar to the Uniform Vehicle Code in that if a defendant refuses to submit to a chemical test, the commissioner of motor vehicles may suspend the license prior to a hearing. Also, the Iowa law requires that a licensed physician, or a registered nurse or medical technologist designated by the physician, acting at the written request of the police officer, only may withdraw the bodily substance.

Constitutional Issues -- Court Decisions

Following adoption of the first implied consent law in New York in 1953, the New York Supreme Court in Shutt v. MacDuff (1954), 127 N.Y.S. (2d) 116, ruled the implied consent law invalid because of its failure to provide adequate safeguards for due process of law. In ruling the law invalid, the court stated, in part:

> ... A studied and critical examination of the particular statute as written, has caused this court great concern in that it is absolutely lacking in reasonable safeguards against arbitrary and unreasonable action by police officers and the Motor Vehicle Commissioner .... If it were written to provide for the demanding of the submission to a test only after a driver had been duly arrested and to provide for action by the Commissioner on the sworn report of the officer making the demand, with a further provision whereby the driver could have a hearing, if demanded, with temporary suspension of license in the meantime, and with revocation to follow in the absence of the due demand for a hearing or upon due proof on a hearing, this court would, without hesitation, approve the statute ...
>
> ... On the other hand, conferring upon police officers the right to make a request under the guise of authority concerning one's person without specific process and without lawful arrest clearly amounts to an unlawful infringement upon one's liberty ...

9. 1963 Supp. to Connecticut General Statutes, Sec. 14-227a.

> ... We have here a statute providing, in effect, that the commissioner may revoke a driver's license upon mere hearsay without a hearing. Recent judicial statements indicated that a statute having this effect is not to be approved...

Although the court did not uphold the validity of the New York law, the decision gave tentative approval to implied consent legislation with respect to three areas of constitutional concern: 1) the validity of implied consent legislation in regard to "self-incrimination"; 2) the reasonableness of "search and seizure" aspects of implied consent legislation; and 3) the relationship of implied consent to the concept of "equal protection of the laws." The New York Supreme Court's statements in these three areas follows:[10]

(1) Self-incrimination -- "... Bearing in mind the purpose of the statute and that highway safety is a matter of great concern to the public, it may not be held that it is unreasonable or beyond legislative power to put such a choice to a motorist who is accused upon reasonable grounds of driving while intoxicated. And it is clear that one may waive his constitutional privilege against self-incrimination. See People v. Roseheimer, 209 N.Y. 115,...

"It also seems clear that the constitutional privilege would not bar the use in the prosecution of a defendant of the results of a body fluid test even though taken while he was so drunk as to be confused or unconscious or otherwise in such a condition that it may not be said that he voluntarily consented thereto. See, in point, State v. Cram, 176 Ore. 577, because the decisions of this state have limited the effect of the state constitutional provision against self-incrimination to protect only as against testimony compulsion, i.e., as to disclosures by attendance, oral or written ..."

(2) Unreasonable search and seizure -- "... the petition before the court fails to show any infringement of the petitioner's rights under this particular constitutional guarantee in that it expressly appears therein that the chemical test of his blood was demanded of him after his due arrest. It is clear that, as a general proposition, the guarantee protects only against searches made without a warrant and beyond the terms of a warrant and the papers on which it was issued, or against personal searches made before a legal arrest ...

"In any event, the statute, when considered generally, does not stand for any unreasonable search or seizure. This, because it is premised upon the consent of the licensee to submit to the test when demanded. The licensee is expressly given the option of refusal ..."

3) Equal protection of law -- "The essence of the right to equal protection of the laws is that all persons similarly situated be treated alike... The constitution does not require that a vehicle and traffic law shall apply equally in all respects to licensed and unlicensed operators of vehicles. The licensed operator possesses a qualified right granted by the state. He stands in a class different from an unlicensed operator of a vehicle and is subject to legislation specially applying to those persons in his class."

10. Shutt v. MacDuff (1954), 127 N.Y.S. (2d) 116.

Subsequent to the Shutt v. MacDuff decision the New York legislature revised the implied consent law to conform with the opinion of the court.

On the basis of the New York example, a number of other states adopted implied consent legislation, and, as in the New York situation, the laws have been attacked on constitutional grounds. For instance, in Lee v. State of Kansas (1961), 358 P. (2d) 765, the court upheld implied consent legislation, concluding that:

> The statute does not compel one in the plaintiff's position to submit to a blood test, and does not require one to incriminate himself within the meaning of constitutional provisions. And neither is it violative of due process ... It gives the driver the right of choice of the statutory suspension of his license, and further gives him the right to a hearing on the question of the reasonableness of his failure to submit to the test. Furthermore, under ... he has the right of appeal to the district court of the county of his residence...

Similarly, the Supreme Court of Nebraska ruled that there was no denial of due process of law or any violation against self-incrimination in Prucha v. Department of Motor Vehicles (1961), 172 Neb. 415, 110 N.W. (2d) 75. The court stated in part:

> The essence of the "implied consent law" is that by driving a motor vehicle on the public highway, the operator consents to the taking of a chemical test to determine the alcoholic content of his body fluid. By the act of driving his car, he has waived his constitutional privilege of self-incrimination, which has always been considered to be a privilege of a solely personal nature which may be waived.
>
> In United States v. Nesmith, D. C. 121 F. Supp. 758, 760, it was held that constitutional privilege against self-incrimination is restricted to oral testimony and does not preclude use of one's body or secretions thereof and their chemical analyses as evidence ...
>
> The plaintiff in his petition alleges that the revocation of his driver's license was arbitrary and capricious because he was not convicted of an offense of operating a motor vehicle under the influence in the original court. The fact of acquittal of a criminal charge of operating a motor vehicle while under the influence of alcoholic liquor does not have any bearing upon a proceeding before the director for the revocation of a driver's license under the provisions of law separate and distinct from criminal statutes.

A Virginia case, Walton v. City of Roanoke (1963), 133 S.E. (2d) 315, also upheld the constitutionality of implied consent legislation:

> The constitutional prohibition against compelling one in a criminal court to give evidence against himself is restricted to oral testimony and does not preclude the use of one's body or secretions therefrom and the results of their chemical analyses ...
>
> We hold that § 18.1-55 neither required defendant to take a blood test nor compelled him to give evidence against himself in violation of the 5th Amendment to the Constitution of the United States or Article I § 8, of the Constitution of Virginia.

In the State of Idaho v. Bock (1958), 328 P. (2d) 1065, the court concluded that where intoxication is an evidentiary element of reckless driving in a homicide case involving the operation of a vehicle, the accused has no constitutional grounds for refusal to submit to a reasonable search and examination of his person, including an examination of blood in the manner authorized by law.

Generally, the validity of implied consent laws also may be based on so-called "constructive service of process." For instance, in Timm v. State (1961), 110 N.W. (2d) 359, the Nebraska Supreme Court contended:

> This "Implied consent" statute is based on reasoning similar to that which has sustained statutes providing for constructive service of process. Such constructive or substituted service of process statutes now are in force in most states. Since the early decision in the case of Pawloski v. Hess, 250 Mass. 22 144 N.E. 760, affirmed by the United States Supreme Court in 274 U. S. 352, 47 S. Ct. 632, ... courts generally have held that statutes providing for constructive service of process upon users of the highways by service upon the Secretary of State or the Highway Commissioner, or upon some other person designated in such statute, are valid...

Court Decisions -- Administration of Implied Consent. A number of court decisions have involved proceedings challenging administrative revocation of a motorist's license, i.e., the administrative action was challenged on the basis of the proper interpretation of respective statutes pertaining to implied consent, rather than the constitutional validity of the statutes. For example, in State of South Dakota v. Batterman (1961), 110 N.W. (2d) 139, a motorist's consent to chemical test for determination of blood alcohol content under the implied consent law is not invalidated by the fact that he has not been informed that refusal to submit will result in forfeiture of driver privileges; though his privileges may not be revoked unless he has been informed that refusal will result in such penalty.

Revocation of License Following Acquittal of Charge. A recent supreme court decision in North Dakota, Colling v. Hjelle (1963), 125 N.W. (2d) 453, invalidated application of the implied consent law following acquittal of the defendant under a charge of driving while under the influence. The court stated that a peace officer under the mistaken belief, however reasonable, that the offense for which the

arrest was made was committed in the officer's presence, when in fact the person arrested is not guilty of the offense, is not a lawful arrest. Section 39-20-01 of North Dakota Code provides "... Test or tests shall be administered at the direction of a law enforcement officer only after placing such person ... under arrest..." Thus, the court determined that since the arrest was unlawful, the officer could not request the defendant to submit to a chemical test.

In a similar case in New York, Combes v. Kelley (1956), 152 N.Y.S. (2d) 134, the court rejected the contention expressed in Colling v. Hjelle by concluding that the validity of the arrest would depend upon the outcome of the subsequent trial, and this could not be considered as a reasonable interpretation of the statute.

Type of Test to be Given. Generally, the courts have held that the validity of a license suspension may not be affected by the failure to provide the defendant a choice of the type of blood test to be given.

In Lee v. State (1961), 358 P. (2d) 765, the Kansas Supreme Court held:

> One of plaintiff's complaint is that under the statute (8-1001) he or any other driver should be given his choice of the four mentioned tests, and that he was not offered such right. It is further argued that the drawing of blood "shocks the conscience" and is inherently "brutal and offensive."
>
> ... It is common knowledge that few areas in the state have the technical equipment and facilities to administer all of the tests. 8-1003 ... provides that only a physician or qualified medical technician, acting at the request of the arresting officer, is permitted to withdraw any blood of a person submitting to a chemical test under the act... nothing brutal or offensive about that when done under the protective eye of a physician or qualified medical technician, but rather is admittedly a scientifically accurate method of detecting alcoholic content in the blood ...

On the other hand, a Utah court decision, Ringwood v. State of Utah (1959), 333 P. (2d) 943, the court held that in some circumstances it might be impractical or dangerous, if mandatory, to require a certain test, pointing out that persons afflicted with hemophilia, etc., should not be forced to submit to a blood test. Since the arresting officer confronted the individual with the choice of a blood test only, the court concluded that the officer was not acting in accordance with the statute. Section 41-6-44.10, Utah Code, states "... shall be deemed to have given his consent to a chemical test for his breath, blood or urine for the purpose..." According to the Nebraska Court in Timm v. State (1961), 110 N.W. (2d) 359, the addition of the words or tests allowed a different interpretation from the Ringwood decision.

Temporary Suspension. In the Application of Grimshaw (1957), 165 N.Y.S. (2d) 263, the New York Supreme Court stated:

> ... that it was the intent of the Legislature to require a hearing to be scheduled before a temporary suspension order could be issued and that the language, "pending the determination of any such hearing" presupposes the scheduling of such a hearing before the issuance of the order. If this were not true, a license could be temporarily suspended and time for a hearing could be extended for an indefinite period ...

Operation of a Motor Vehicle -- "Right" or "Privilege"

The Colorado Supreme Court in People v. Nothaus (1961), 147 Colo. 210, 363 P. 2d 180, established precedence that the operation of a motor vehicle is a "right." The majority opinion of the court stated:

> Every citizen has an inalienable right to make use of the public highways of the state; every citizen has full freedom to travel from place to place in the enjoyment of life and liberty. The limitations which may be placed upon this inherent right of the citizen must be based upon a proper exercise of the police power of the state in the protection of the public health, safety and welfare. Any unreasonable restraint upon the freedom of the individual to make use of the public highways cannot be sustained. Regulations imposed upon the right of the citizen to make use of the public highways must have a fair relationship to the protection of the public safety in order to be valid.
>
> The regulation and control of traffic upon the public highways is a matter which has a definite relationship to the public safety, and no one questions the authority of the General Assembly to establish reasonable standards of fitness and competence to drive a motor vehicle which a citizen must possess before he drives a car upon the public highway. When a citizen meets the standards thus defined in a proper exercise of the police power, he has a right to continue in the full enjoyment of that right until by due process of law it has been established that by reason of abuse of the right or other just cause it is reasonably necessary in the interest of public safety to deprive him of the right to drive a motor vehicle on the highways.

The Nothaus decision may be important in viewing the validity of court decisions in other states concerning implied consent, because many of these states regard driving as a "privilege." For instance, the Nebraska Supreme Court in supporting the validity of constructive service of process laws stated, in Timm v. State (1961), 110 N.W. (2d) 359:

> The use of the public highways is not an absolute right which everyone has, and of which a person cannot be deprived; it is a right or privilege which a person enjoys subject to the control of the state in the valid exercise of its police power. Therefore, in view of the state's power to regulate the use of its highways, statutes may be enacted which declare that the use of the public highways by any person shall be deemed the equivalent of an affirmative consent to a chemical test or tests of the user's blood, breath, saliva, or urine for determination of the alcoholic content of his blood, subject to the other provisions of the statute. The law does not compel the user to take such chemical tests. If he refuses to do so, however, it provides that he shall forfeit for a period of ...

The Kansas Supreme Court also declared that driving is a "privilege" (Lee v. State of Kansas, (1961) 358 P. 2d 765):

> It is an elementary rule of law that the right to operate a motor vehicle upon a public street or highway is not a natural or unrestrained right, but a "privilege" which is subject to reasonable regulation under the police power of the state in the interest of public safety and welfare ...

On the other hand, New York courts regard driving as a "right" and also have upheld the validity of implied consent legislation. In Ballou v. Kelley (1958), 176 N.Y.S. (2d) 1005, the court stated:

> ... although the possession of a license to drive is a vested property right (Moore v. MacDuff, 309 N.Y.S. 35, 127 N.E. 2d 741) and may not be taken away except by due process (Wignell v. Fletcher, 303 N.Y.S. 435, 103 N.E. 3d 728), the Legislature in exercising its power reasonably to regulate the use of highways may impose reasonable conditions before a license is issued and for the continued possession of the same ...

Implied Consent in Colorado

Despite the fact that implied consent legislation has been upheld in numerous states, some people believe that the Colorado Supreme Court would not uphold a similar law here. That belief is based on the court decision in the Nothaus case. However, in the case of Block v. People (1951), 156 Colo. 36.240 P. 2d 512 the court appears to have resolved the question relating to self-incrimination. In that case the court stated:

> Counsel for defendant cite no Colorado case where evidence other than testimonial has been barred because it might be incriminating. In Ingles v. People, 92 Colo. 518, 22 P. (2d) 1109, we held that compelling one who has pleaded not guilty by reason of insanity to undergo examination, both mental and physical, does not constitute compulsory self incrimination. So, in this

state, the distinction between the admission in evidence of a physical fact concerning the defendant in a criminal case, as distinguished from the matters to which a defendant can be relieved from testifying, already has begun to emerge. It would seem to be a proper distinction.

A study of the history of the development of such a constitutional provision as contained in our Colorado Constitution indicates that the original intent was to prevent a defendant from being forced to give testimonial evidence against himself, and did not contemplate the exclusion of evidence of physical facts relating to the defendant. 8 Wigmore on Evidence (3d ed.), p. 276, §2250. This line of demarcation is clearly set forth in Mr. Justice Holmes' opinion in Holt v. United States, 218 U. S. 245, 31 Sup. Ct. 2, 54 L. Ed. 1021, as follows: "Another objection is based upon an extravagant extension of the Fifth Amendment. A question arose as to whether a blouse belonged to the prisoner. A witness testified that the prisoner put it on and it fitted him. It is objected that he did this under the same duress that made his statements inadmissible, and that it should be excluded for the same reasons. But the prohibition of compelling a man in a criminal court to be witness against himself is a prohibition of the use of physical or moral compulsion to extort communications from him, not an exclusion of his body as evidence when it may be material. The objection in principle would forbid a jury to look at a prisoner and compare his features with a photograph in proof. Moreover, we need not consider how far a court would go in compelling a man to exhibit himself. For when he is exhibited, whether voluntarily or by order, and even if the order goes too far, the evidence, if material, is competent. Adams v. New York, 192 U. S. 585, 24 Supp. Ct. 372, 48 L. Ed. 575."

In the recent case of State v. Cram, 176 Ore. 577, 160 P. (2d) 283, 164 A.L.R. 952, involving a somewhat similar set of facts to those in the instant case, the author of the majority opinion, after an extended consideration of the various cases and after referring to Holt v. United States, supra, states:

"The defendant was not deprived of any of his constitutional rights by the admission of the testimony here in question. He was not compelled to testify against himself. Evidence of the result of the analysis of the blood sample was not his testimony but that of Dr. Beeman, distinct from anything the defendant may have said or done. The blood sample was obtained without the use of any process against him as a witness. He was not required to establish the authenticity, identity or origin of the blood; those facts were proved by other witnesses.

"If the evidence here under attack is inadmissible, it is difficult to understand under what theory fingerprints procured under compulsion, or evidence concerning them, is admissible. It is equally difficult to comprehend why the defendant is not denied his constitutional privilege against self-incrimination by being required to do the many acts hereinbefore enumerated."

The Block case would seem to place the Colorado Supreme Court in a position of supporting chemical tests as coming under the constitutional provisions of lawful "search and seizure," which could be interpreted as minimizing the constitutional question of self-incrimination in relation to implied consent legislation.

Examination of the Nothaus decision reveals the types of arguments that could be used in opposition to an implied consent law. For instance, in the Nothaus decision counsel for the defense pointed out the following:[11]

A deposit of security is required regardless of the question of guilt of a violation of a traffic law, and without regard to the question of whether there was any negligence on the part of the person who is required to deposit the security.

The deposit is required after the accident and not before it, and operates only to facilitate collection of damages by the party who may thereafter be adjudged entitled thereto. No protection is offered the public with relation to future occurrences.

The deposit is required only because of the happening of an accident.

The deposit of security is required without any inquiry whatever concerning the liability of the person required to make it, and must be made in such sum as in the judgment of the director of revenue shall satisfy any judgment for damages resulting from the accident, no standards are fixed for the exercise of his discretion, no evidence is taken, and no notice or hearing is afforded as to the amount or nature of the security to be required.

According to 13-7-7 the director of revenue is required to suspend the license of every operator and the registrations of every owner of an automobile "in any manner involved" in an accident unless there is a deposit of security referred to as "sufficient in the judgement of the director to satisfy any judgments for damages resulting from such accident as may be recovered against such operator or owner." This suspension is mandatory. It is not conditioned upon any report being made by the operator whose license is suspended. It is not condi-

11. People v. Nothaus (1961), 147 Colo. 210, 363 P. (2d) 180.

tioned upon a criminal trial and a finding of guilt. This suspension must be made within sixty days after the receipt of "a report" -- any report, a true one, a false one, an unsworn one, the report of a bystander or the hearsay report of any kind by any person.

Similarly, the majority opinion of the Supreme Court agreed with the defense counsel, concluding, in part, that:

> (7) The requirement of C.R.S. '53, 13-7-7 that the director of revenue, "* * * shall suspend the license of each operator and all registrations of each owner of a motor vehicle in any manner involved in such accident * * *" unless such persons deposit a sum "sufficient in the judgment of the director * * *" to pay any damage which may be awarded, or otherwise show ability to indemnify the other party to the accident against financial loss, has nothing whatever to do with the protection of the public safety, health, morals or welfare. It is a device designated and intended to bring about the posting of security for the payment of a private obligation without the slightest indication that any legal obligation exists on the part of any person. The public gets no protection whatever from the deposit of such security.

The arguments posed in the Nothaus decision could be applied to implied consent legislation, i.e., a defendant could be found not guilty in the courts of driving while under the influence and still lose his license because of the operation of an implied consent law. Theoretically, the individual may never have driven while under the influence, yet be subject to license suspension for refusal to submit to a chemical test. Thus, the public health and safety in no way is protected by application of the law, and the "rights" of the individual may be taken away without judicial process. Justice Moore, in the majority opinion in People v. Nothaus declared:[12]

> The question of whether a constitutionally guaranteed property right can be denied for some justifiable reason, is essentially a judicial question, and under the doctrine of separation of powers of government it must remain a judicial question...

However, the aforementioned argument may not be valid when applied to implied consent on the grounds that as a condition for operation of a vehicle on the state highways the individual gives "consent" to submission to a chemical test if arrested for driving while under the influence. This condition may be similar to other restrictions imposed by the General Assembly concerning the operation of motor vehicles.

The following statement by Justice Moore seems to lend significant support for the legality of so-called implied consent legislation:

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12. Ibid.

> This is not the situation which we find in some states where the statutes require public liability insurance as a condition to be met before a driver's license will issue. Such statute protects the public. The statute before us is entirely different. In the matters to which we have particularly directed attention, C.R.S. '53, 13-7-7 is unconstitutional.

Extending this interpretation further, the public is protected because the motorist automatically gives consent to a chemical test as a condition for the operation of a motor vehicle.

Financial Responsibility

Colorado's Safety Responsibility Law (13-7-1 to 13-7-29, CRS 1953, as amended) provides for the suspension of the license and registration of financially irresponsible drivers involved in automotive accidents. The law may be considered as effective in encouraging most Colorado drivers to obtain liability insurance. For instance, in 1963, accident reports were filed on 60,873 motor vehicles operating in Colorado. Of this number, 51,806 vehicles carried liability insurance, or approximately 85 per cent of the total.[13] Although the great majority of Colorado motorists carry liability insurance, there remains a significant problem in regard to the 15 per cent of the motorists who may be classed as financially irresponsible.

Financial Responsibility in Other States

Generally, motor vehicle financial responsibility legislation in the United States may be classified into five categories:

1) security-type safety responsibility laws;
2) compulsory liability insurance;
3) unsatisfied judgment funds;
4) impoundment laws; and
5) uninsured motorists coverage.

Security-type safety responsibility laws have been adopted in 47 states, including Colorado. Basically, these laws provide that if a motorist is involved in an accident and a report is filed indicating death, injury, or property damage exceeding a statutory minimum, the enforcing agency may suspend the license of the driver who fails to deposit the security required by law. Of course, these provisions do not apply to insured motorists. In general, safety responsibility laws have been credited with increasing the percentage of insured motorists. For instance, prior to adoption of the security-type safety responsibility laws, only 25 to 30 per cent of all motorists were insured; national estimates at present indicate that over 80 per cent of all motorists are insured.[14]

Compulsory Liability Insurance. Three states have adopted compulsory liability insurance -- Massachusetts, New York, and North Carolina. Compulsory liability insurance is based on the concept of requiring a motorist to be financially liable before his vehicle is operated on the highways. The administering agency is not allowed to issue license plates for a vehicle until the motorist obtains liability insurance.

Impoundment laws simply increase the penalties existing under security-type safety responsibility acts. For instance, involvement in an accident is grounds for seizure of an uninsured vehicle. If claims and storage costs are not paid, the vehicle may be sold by the administering agency.

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13. Source: Motor Vehicle Division, State Department of Revenue.
14. The Financially Irresponsible Motorist in Kentucky, Research Report No. 16, 1963, Legislative Research Commission.

Unsatisfied judgment funds are state-operated funds designed to assist accident victims (without contributory negligence) in collecting on claims for damages or injuries inflicted by an uninsured motorist. Funds may be financed as follows: by an assessment against all motorists, by a comparatively large fee for motorists registering an uninsured vehicle, by a combination of the aforementioned, etc. States adopting unsatisfied judgment funds include: Maryland, New Jersey, and North Dakota.

Uninsured motorists coverage laws require all liability policies to contain a proviso protecting the insured motorists in accidents involving uninsured motorists. Some of the states requiring uninsured motorists coverage allow an option to the insured motorist to be covered or not -- California, Florida Louisiana, Georgia, Illinois, Nebraska, Rhode Island, and North Carolina. In addition, the states of South Carolina and Virginia provide a program of reimbursement to insured motorists to cover the expense of insurance against uninsured motorists. The states of New Hampshire, New York, South Carolina, and Virginia require liability policies to contain coverage for uninsured motorists.

Pros and Cons of Financial Responsibility Laws

Security-type safety responsibility laws encourage motorists to obtain liability insurance for their vehicles in order to avoid suspension of their driver licenses due to involvement in an accident. Also, the truly financially irresponsible motorist, who is involved in an accident, may lose his driving privileges, offering some social gain to the community. On the other hand, the insured motorist is not protected against the initial accident of financially irresponsible drivers.

Compulsory liability insurance forces motorists to buy insurance prior to registration of their motor vehicles. Thus, the number of uninsured motorists utilizing the highways is greatly reduced. The most serious disadvantage of compulsory insurance is the tendency toward extremely high rates. Other arguments against compulsory insurance include: compulsory insurance programs are cumbersome and expensive to administer; the higher rates mean, in effect, that the voluntarily insured motorists may pay the additional costs; and political pressures may influence a state's rate-making policy.

Unsatisfied judgment funds enable victims involved in accidents with uninsured motorists to receive compensation which they would not have received in the absence of the fund. The unsatisfied judgment funds may also protect victims of hit-and-run drivers as well as uninsured out-state motorists. In general, the unsatisfied judgment fund may overcome the objections of compulsory insurance. Financing of unsatisfied judgment funds appears to be the major disadvantage of the funds. For instance, if a fee is assessed against all motorists, the voluntarily insured motorist again is penalized. On the other hand, a substantial fee imposed on the uninsured motorist may cause him to believe that he is protected and insurance is not necessary. Also, a tax on the uninsured motorist may not raise enough revenue to satisfy claims. Other arguments opposed to the fund include the red tape in processing claims, inadequate financing of funds which may lead to compulsory insurance, and the high cost of general administration.

Impoundment laws are, of course, not a cure-all but another attempt to encourage motorists to carry insurance. The public may be impressed by impoundment of vehicles and resulting storage costs to a sufficient degree that most people will be motivated to obtain insurance. However, impoundment probably does not meet the needs of most accident victims. Storage costs on an impounded vehicle coupled with other liens may not be satisfied by sale of the vehicle, let alone the claim of the accident victim.

Uninsured motorists coverage protects the financially responsible motorists from losses at the hands of uninsured motorists and at reasonable cost and with a minimum of state intervention. Also, the motorist has a guarantee that would not be available in a compulsory program, namely, protection against hit-and-run drivers and against the uninsured motorist from out-of-state. A significant disadvantage to uninsured motorists coverage programs is that the financial burden of protecting accident victim claims rests with the insured motorist.

The aforementioned areas of legislation provide a brief summary of the attempts made in other states to deal with similar groups of financially irresponsible motorists. Of the five areas of financial responsibility legislation listed, three -- unsatisfied judgment funds, impoundment laws, and uninsured motorists coverage -- simply are extensions of laws similar to Colorado's Safety Responsibility Law. Briefly, these laws attempt to penalize the uninsured motorists as well as to finance the claims of accident victims of uninsured motorists.

Motor Scooter Licenses

Colorado is one of 16 states in which a teenager, under 16 years of age, may operate a motor scooter. The minimum age for the legal operation of motor scooters in three states (Alaska, Arkansas, and New Mexico) is age 13; states allowing 14-year-olds to operate motor scooters include COLORADO, Florida,[15] Louisiana, Oklahoma, South Carolina, Texas, and Wyoming; and the six states permitting motor scooter operation at age 15 are -- Hawaii, Michigan, Minnesota, Mississippi, Montana, and Virginia. Of the six states allowing operation of motor scooters at age 15, four states (Hawaii, Mississippi, Montana, and Virginia) issue a standard operator's license at age 15, enabling 15-year-olds to operate automobiles as well as motor scooters.

Motor Scooter and Bicycle Accidents in Colorado

The "Standard Summary of Motor Vehicle Accidents," published by the Department of Revenue indicates that the number of motor scooter accidents and the number of bicycle accidents are quite similar. Although the number of accidents is similar, the rate of accidents for motor scooters may be much higher because of a smaller number of motor scooters in relation to the total number of bicycles in Colorado.

The following figures list the relative number of motor scooter and bicycle accidents in Colorado during 1962 and 1963.

	All Accidents		Injury Accidents		Fatalities	
Year	Motor Scooter	Bicycle	Motor Scooter	Bicycle	Motor Scooter	Bicycle
1962	535	518	381	439	2	6
1963	499	506	351	424	3	6

Perhaps the aforementioned figures graphically demonstrate the high rate of exposure for occupants of two-wheel vehicles. For instance, of 499 motor scooter accidents in Colorado in 1963, 354 resulted in death or injury, or 70.94 per cent of the accidents. On the other hand, of the 55,171 motor vehicle accidents, 13,623 accidents involved death or injury, or 24.69 per cent.

At the July 20 meeting of the committee, Mr. William Berry, Executive Secretary of the American Motor Scooter Association, made the following statement to the committee:

> ...The Electronic Data Processing Division of the Department of Revenue was able to furnish me with the results of a special study on motor scooter accidents for 1959, 1960, 1961 and through October of 1962. As far as I know, this is the only accurate

15. In Florida, motor scooter operators under age 16 may not operate their vehicles after sundown.

information available concerning the number of accidents, fatalities and injuries occurring to 14 and 15 year old motor scooter operators. From January 1, 1959 through October of 1962, 14 and 15 year old motor scooter operators were involved in 973 accidents. In almost four years, there were 5 fatalities, about one-half of one per cent. Of the 973 accidents, 712 produced injury, or 73%. During this period of time, approximately 11,000 14 and 15 year olds were licensed to operate motor scooters...

A complete breakdown of figures presented by Mr. Berry at the July 20 meeting are included in Tables IX and X. If the accident totals for the period from January 1, 1961 through October, 1962 are compared to the number of licenses issued, the relative accident frequency may be clarified. For instance, in 1961 and 1962, 4,386 youngsters were examined for purposes of obtaining a motor scooter license. Based on Mr. Berry's figures, during the same period of time, 14 and 15-year-old operators were involved in 523 accidents. In other words, if the number of examinations given in the two-year period is indicative of the number of licensed operators 14 and 15 years of age, then about 11.9 per cent of the youngsters were involved in accidents. At the same time, 397 youngsters were injured, or an estimated 9.1 per cent. Note that these estimates may be low because the accident figures are through October of 1962 only. In summary, about one out of every eight 14 or 15-year-old motor scooter operators may be involved in an accident, while one out of every 11 may be injured.

Generally, data on motor scooter accidents has not been segregated for the past few years. National figures compiled in a report by the National Safety Council in 1959 also have not been revised since the original study was made.

Table IX

MOTOR SCOOTER ACCIDENTS INVOLVING 14 AND 15 YEAR-OLD-OPERATORS*

Year	No. of Examination	Fatal	Injury	Property Damage	Total	% Fatal	% Injury
1959		0	205	101	306	0	67
1960		1	110	33	144	.6	76
1961	2,130	3	160	47	210	1.4	76
1962**	2,256	1	237	75	313	.3	75
TOTAL		5	712	256	973	.5	73

* Source: Statement by Mr. William Berry to Committee on Driver Licensing, July 20, 1964

** January through October, 1962.

Table X

MOTOR SCOOTER ACCIDENTS INVOLVING
16-YEAR-OLD AND OLDER OPERATORS*

Year	Fatal	Injury	Property Damage	Total	% Fatal	% Injury
1959	2	111	66	179	1.1	62
1960	5	150	77	232	2.1	64
1961	1	97	41	139	.7	70
1962**	0	110	41	151	0	72
TOTAL	8	468	252	701	1.1	66

* Source: Statement by Mr. William Berry to Committee on Driver Licensing, July 20, 1964.
** January through October, 1962.

High School Driver Education

According to national figures prepared for school year 1962-63, by the Insurance Institute for Highway Safety, approximately 68 per cent of qualifying secondary schools offer programs of driver education. Also, approximately 52 per cent of eligible students participated in driver education courses in school year 1962-63. At the same time, only 29 per cent of eligible Colorado high school students attended driver education courses, and only 51 per cent of the high schools included driver education as part of the curriculum. Table XI provides a state-by-state comparison of the relative number of secondary schools providing programs of driver education as well as a summary of student participation in schools offering driver education programs.

Perhaps the availability of state-aid may have some influence on the development of driver education programs. For instance, for school year 1962-63, in states providing assistance for high school driver education programs, 83.5 per cent of eligible schools offered driver education courses, compared to 55.7 per cent for schools in states not providing driver education monies. Similarly, student participation in states granting state-aid also was greater than for states not offering monies for driver education -- 66.1 per cent and 37.4 per cent of eligible students, respectively.

Cost of Driver Education Programs in Colorado

Data on per pupil cost of high school driver education programs in Colorado is contained in the tabulations below. It should be recognized that comparison of costs are somewhat meaningless unless all other factors are considered. Examples of some of these factors are as follows: (1) the differences in salary schedules; (2) the philosophy of the school as it relates to teacher-pupil ratio; (3) the amounts and kinds of equipment used as teacher aids; and (4) consistency of establishing average costs.

DRIVER EDUCATION -- PER PUPIL COST[16]

School	Cost
Hugo	$71.00
Snyder	67.34
Rifle	65.27
Trinidad	63.00
Longmont	59.30
Berthoud	59.00
Keenesburg	55.50
North Denver	55.00
Thomas Jefferson, Denver	55.00
Center	53.63

16. Source: Minutes of Committee on Driver Licensing, July 20, 1964.

School	Cost
Salida	$53.50
Fort Collins	48.60
Aurora	48.05
Durango	47.19
Dolores	35.35
Lamar	29.87

COLORADO DRIVER EDUCATION DATA[17]

1.	No. of schools which include grade 10	239
2.	Total number of students in grade 10	30,403
3.	No. of students participating in complete driver education program	8,396
4.	Average cost per student	$50.00
5.	Present cost to local districts based upon average per pupil cost 8,396 @$50.00	$419,800.00
6.	Total cost of complete program anticipating 100% student participation	$1,520,150.00
7.	If state-aid at $25 per student were available to local districts and anticipating a 50% increase into driver education classes, the amount of state-aid, less supervision and clerical cost, would amount to	$315,000.00
8.	Supervisory and clerical	$16,000.00
9.	If the driving age is changed from 16 to 18 years of age unless a student completed an approved driver education course, it is conceivable that 90% of the total number of sophomores might well enroll in the driver education program	

17. Ibid.

Table XI

DRIVER EDUCATION -- SECONDARY SCHOOLS*

State **	SCHOOL PARTICIPATION: Number of Potential Schools	Schools *** Offering Qualifying "30 & 6" Courses	Per Cent	Total Schools Offering Driver Education Courses	Per Cent	STUDENT PARTICIPATION: No. of Annual Eligible Students	Qualifying*** "30 & 6" Courses	Per Cent	Total Driver Education Enrollment	Per Cent
Ala.	N/R					N/R				
Alaska	26	2	8	4	15	2,632	27	1	61	2
Ariz.	84	65	77	92	100	21,935	7,222	33	17,620	80
Ark.	478	40	8	42	9	30,576	1,706	6	1,791	6
Calif.	625	439	70	491	79	259,115	123,075	47	162,904	63
COLORADO	197	84	43	101	51	25,433	5,113	20	7,296	29
Conn.	127	86	68	102	80	28,654	9,155	32	12,475	44
Del.	49	38	78	38	78	7,515	3,704	49	3,704	49
D.C.	16	16	100	16	100	5,214	1,687	32	1,687	32
Fla.	473	285	60	298	63	82,792	57,038	69	57,448	69
Ga.	558	135	24	149	27	62,013	7,323	12	8,545	14
Hawaii	31	6	19	6	19	10,551	168	2	168	2
Ida.	158	143	91	143	91	14,231	9,181	65	9,181	65
Ill.	675	613	91	686	100	144,840	81,277	56	129,742	90
Ind.	335	447	100	483	100	82,142	42,954	52	47,091	57
Iowa	469	466	99	466	99	46,309	29,887	65	29,887	65
Kans.	552	421	76	425	77	37,576	24,876	66	25,096	67
Ky.	377	80	21	80	21	48,547	3,701	8	3,701	8
La.	586	204	35	327	56	58,275	16,202	28	27,117	47
Me.	157	108	69	108	69	12,072	8,537	71	8,537	71
Md.	156	120	77	141	90	50,578	12,046	24	16,086	32
Mass.	220	156	71	262	100	68,096	16,949	25	28,023	41
Mich.	610	594	97	594	97	131,733	124,464	94	124,464	94
Minn.	488	416	85	432	89	52,314	32,124	61	32,669	62
Miss.	441	99	22	119	27	34,049	5,111	15	7,448	22
Mo.	567	275	49	320	56	64,592	21,546	33	23,959	37

Table XI
(continued)

State**	SCHOOL PARTICIPATION: Number of Potential Schools	Schools*** Offering Qualifying "30 & 6" Courses	Per Cent	Total Schools Offering Driver Education Courses	Per Cent	STUDENT PARTICIPATION: No. of Annual Eligible Students	Qualifying*** "30 & 6" Courses	Per Cent	Total Driver Education Enrollment	Per Cent
Mont.	191	32	17	42	22	13,085	1,449	11	1,776	14
Nebr.	408	161	39	188	46	23,465	9,254	39	11,018	47
Nev.	37	14	38	25	68	5,866	1,228	21	1,700	29
N.H.	99	44	44	48	48	9,165	2,142	23	2,246	25
N.J.	251	193	77	251	100	74,233	27,771	37	72,841	98
N.M.	140	85	61	91	65	20,088	8,048	40	8,644	43
N.Y.	845	771	91	797	94	218,657	74,925	34	77,734	35
N.C.	758	747	99	747	99	89,661	55,706	62	55,706	62
N.D.	304	73	24	175	58	11,281	2,651	23	7,934	70
Ohio	869	634	73	654	75	159,532	47,936	30	57,663	36
Okla.	554	286	52	286	52	39,262	17,628	45	17,628	45
Ore.	217	105	48	141	65	29,701	7,494	25	14,237	48
Pa.	681	575	84	575	84	139,893	54,625	39	86,150	61
R.I.	38	0	0	49	100	11,372	0	0	14,747	100
S.C.	417	120	29	166	40	49,602	4,201	8	9,153	18
S.D.	243	86	35	99	41	12,119	4,837	40	5,692	47
Tenn.	464	55	12	70	15	54,491	3,569	7	5,557	10
Texas	1,413	608	43	640	45	174,867	42,245	24	66,615	38
Utah	80	79	99	96	100	19,592	18,083	92	18,562	95
Vt.	83	30	36	34	41	5,890	1,576	27	1,760	30
Va.	429	158	37	401	93	71,847	11,431	16	56,051	78
Wash.	201	101	50	145	72	55,587	8,929	16	15,158	27
W. Va.	316	112	35	114	36	38,119	5,072	13	5,722	15
Wisc.	426	323	76	366	86	66,226	30,235	46	34,197	52
Wyo.	77	26	34	27	35	6,514	1,371	21	1,527	23
Totals	17,996	10,756	60	12,152	68	2,781,899	1,087,479	39	1,436,718	52

*Source: Insurance Institute for Highway Safety.
**Includes District of Columbia.
***Includes 30 hours of classroom instruction and six hours practice driving.

State-aid -- Cost Estimates for Colorado

If the state of Colorado embarked on a program of state-aid to local school districts for driver education programs, the total cost to the state would depend on two factors: 1) the level of state participation; and 2) the number of students in the program. Assuming a proposed driver education program on a state-wide basis would attract 100 per cent of eligible high school students, the following figures reflect the cost estimates of a program of state-aid for driver training for various levels of state contributions.

Level of State Participation	Estimated Maximum State-Aid
$10.00 per pupil	$ 304,000
15.00 " "	456,000
20.00 " "	608,000
25.00 " "	760,000
30.00 " "	912,000
35.00 " "	1,064,000
40.00 " "	1,216,000

In all probability, 100 per cent participation of 10th grade students in a program of driver education only would be applicable in the event a compulsory or semi-compulsory driver training program were adopted by the General Assembly, i.e,, if the minimum age for operation of a motor vehicle were raised to age 18, unless a youngster completed a driver education course, the demand for driver education would be universal throughout the state. On the other hand, if driver education is to remain an optional program for local school districts and state-aid is to be used for purposes of encouraging driver training, student participation may not exceed two-thirds of eligible enrollment. For example, in the 23 states adopting programs of state-aid, about 65 per cent of eligible students are participating in driver training programs.

Table XII contains the estimated cost to Colorado for a proposed state-assisted program of driver education, based on 65 per cent of the students taking part in the program. With this in mind, if the state contributes $20 per pupil, the estimated cost to the state would amount to $395,000, to the school districts $592,800, and for the total program $988,000.

Table XII

ESTIMATED COST OF STATE-AID FOR DRIVER EDUCATION IN COLORADO*

Amount of State-aid Per Pupil	Est. Cost To State	Est. Cost to School Districts	Estimated Cost of Program
$10.00 per pupil	$197,600	$790,400	$988,000
15.00 " "	296,400	691,600	988,000
20.00 " "	395,200	592,800	988,000
25.00 " "	494,000	494,000	988,000
30.00 " "	592,800	395,200	988,000
35.00 " "	691,600	296,400	988,000
40.00 " "	790,400	197,600	988,000

* Based on 65 per cent of eligible students participating in program.

Financing State Assistance for Driver Education

Twenty-three states have adopted legislation providing for programs of state-aid for high school driver education programs (See Table XIII).

Six methods of financing driver training programs are employed by these states in providing assistance to secondary schools for driver education:

1) additional fee on driver licenses (nine states -- Florida, Idaho, Illinois, Kansas, Michigan, Nebraska, Oregon, Virginia, and Wisconsin);

2) general revenues (five states -- Connecticut, Delaware, Louisiana, Maine, Rhode Island);

3) penalty assessments -- fines for motor vehicle violations, etc. (four states -- California, Mississippi, Oklahoma, and Washington);

4) fee on learners' permits (two states -- Maryland and Pennsylvania);

5) fee on motor vehicle registrations (two states -- North Carolina and Utah); and

6) the state of New Hampshire utilizes the proceeds from a $5 service fee for initialed number plates. Table XIII lists the source of funds for state-aid programs and the average amount allocated per pupil in the 1962-63 school year.

As may be noted, with the exception of states utilizing general revenue monies, funds earmarked for driver education programs are obtained from sources related to the operation of motor vehicles. Consequently, the adult driver is supporting driver education programs to a large extent. On the other hand, two states -- Maryland and Pennsylvania -- provide that driver training revenues must be collected from the young drivers through a fee on learners' permits.

Applicability of Various State Revenue Sources to Financing Driver Education in Colorado

A number of problems exist in attempting to utilize the methods adopted in other states for financing driver education in Colorado. For instance, the most popular method of financing state-aid to driver education is through additional fees on motor vehicle driver licenses. Article X, Section 18, Colorado Constitution, may prohibit the adoption of similar plans for Colorado:

> ... the proceeds from the imposition of any license, registration, fee or <u>other charge</u> with respect to the operation of any motor vehicle upon any public highway in this state and the proceeds from the imposition of any excise tax on gasoline or other liquid motor fuel shall, except costs of administration, be used exclusively for the construction, maintenance, and supervision of the public highways of this state. (emphasis added)

Table XIII

SOURCE OF STATE FUNDS FOR SUPPORT OF DRIVER EDUCATION PROGRAMS IN SECONDARY SCHOOLS*

Average Per Pupil Reimbursement -- 1962-63

	General Fund $	Penalty Assessment $	Fee on License $	Fee on Learner's Permit $	Fee -- Motor Vehicle Reg. $	Misc. $
California		42.51				
Connecticut	10.00					
Delaware	41.00					
Florida			N.A.			
Idaho			42.79			
Illinois			40.00			
Kansas			27.96			
Louisiana	N.A.					
Maine	10.00					
Maryland				54.00*		
Michigan			25.00			
Mississippi		-0-				
Nebraska			-0-			
New Hampshire						N.A.
North Carolina					N.A.	
Oklahoma		-0-				
Oregon			29.90			
Pennsylvania				15.00		
Rhode Island	N.A.					
Utah					27.19	
Virginia			-0-			
Washington		-0-				
Wisconsin			25.00			

* Source: 1964 Report of American Automobile Association
N.A. -- Not available

Briefly, the Colorado Constitution restricts the use of monies collected from motor vehicle licenses, permits, and registration fees to four purposes: 1) construction; 2) maintenance; 3) supervision of highways; and 4) administration.

Fee on Driver Licenses and Registrations. At first glance, the constitution appears to prevent the earmarking of any special fees related to motor vehicle or driver license assessment for the purpose of driver training; however, this conclusion may not be valid. The essence of driver training is making the highways safe for travel and may be as important to the operation of vehicles on the highways as the engineering and design of safe highways or the administration of a driver license program to prevent persons incapable of operating a vehicle safely to utilize the highways. Driver training, or a program of safe driving, simply may be a fundamental condition to proper operation of a motor vehicle. Therefore, the terms "supervision of highways" and "administration of license and registration laws" as referred to in the constitution may, in essence, embrace the concept of highway safety training.

Precedence for an expanded highway safety program, utilizing monies from the highway user fund, already may be an accepted state program, i.e., the General Assembly appropriates highway user tax monies for support of the Highway Safety Council's and the State Patrol's activities in safe driver campaigns.

Perhaps a proposed program of highway safety, financed through the resources of the highway user tax fund, could be administered by the Department of Revenue, the State Patrol, or the Highway Safety Council and not be in contradiction of Article X, Section 18.

Motor Vehicle Fines and Penalties. Another possible source of revenue for an expanded program of driver education includes monies from motor vehicle fines and penalties collected pursuant to Section 13-2-16, CRS 1953, as amended. Fifty per cent of all motor vehicle fines collected by magistrates, judges, clerks of courts of record, and justices of the peace, coupled with penalty assessments collected by the State Patrol are earmarked for the highway user fund. The remaining fifty per cent of fines and penalties are deposited to county general funds.

Mr. Frank Mansheim, assistant chief of the Motor Vehicle Division, reports that the state's share from fines collected in 1963 from justices of the peace, etc., amounted to $547,600; also, the state retained $351,400 in penalty assessments from the State Patrol. In total, the state's share for fines and penalty assessments amounted to over $899,000. On a continuing basis, Mr. Mansheim reports that a growth factor of between five and ten per cent per year may be estimated for motor vehicle fines and penalty assessments.

Of course, a significant advantage to utilizing fines and penalty assessments for the purpose of financing a program of driver education is the elimination of constitutional questions concerning a redistribution of highway user monies.

Adequacy of Fines and Penalties to Support Driver Education. If the state adopted a program of driver education and allocated $25 per pupil as the total estimated state share, the approximate program cost (based on 100 per cent student participation) would amount to $760,000 and could be financed from fines and penalty assessments. A voluntary program in which student participation would not exceed about 65 per cent of enrollment in the 10th grade of the public schools also could be financed by a program of state-aid at a level of about $40 per pupil.

Replenishment of Highway User Funds. If a proposed program of driver education is to be financed through monies presently earmarked for the highway user tax fund, perhaps replenishment of highway user funds currently utilized for other programs may be needed. Additional monies could be raised for current highway user tax fund purposes through increased license or registration fees.

In 1963, approximately 440,000 motor vehicle driver licenses were issued in Colorado. With the exception of motor scooter and minor licenses, operators' licenses are issued every three years. The number of driver licenses issued in the two preceding years amounted to 381,572 (1961) and 339,431 (1962). The three-year-average of number of licenses issued exceeds 387,000. On the basis of licenses issued, the amount of money that would be collected by an additional fee of one dollar per license probably would not be sufficient to cover the cost of a driver education program, that is, if the total cost of the proposed state-aid program is estimated at well over $500,000. In other words, a program of state-aid involving $25 per pupil and 100 per cent attendance would cost about $760,000, while an additional fee on driver licenses would average less than $400,000 per year. Of course, if licenses were issued annually, the number of licenses issued probably would exceed one million, providing a ready source of funds, based on present fees.

License plates for all motor vehicles are issued annually in Colorado. Over 1,169,000 license plates were issued for motor vehicles in Colorado in 1963. Section 13-5-23, 1960 Perm. Supp., could be amended to require an additional fee on all motorcycles, motor vehicles, and trucks to provide an additional fee of seventy-five cents which would be adequate to meet the cost of a driver education program involving about $760,000 in state-aid.

Effectiveness of Driver Education

In 1963, the Secretary of the State of Illinois in cooperation with the Highway Traffic Safety Center of the University of Illinois conducted a detailed analysis of violation and accident records of teenagers 16 to 20 years of age. Briefly, this study may pose some of the difficult problems encountered in evaluating data related to measuring the effectiveness of high school driver education programs.

Table XIV summarizes the findings of the Illinois study as it relates to the collision or accident records of Illinois teenagers, comparing high school driver education graduates with teenagers not participating in high school driver training programs. Briefly, although the driver education graduates appear to have a slightly better record, the differences may not be significant. For instance, in the 18-year-

old category, the accident rate per 1,000 drivers is higher for both male and female drivers participating in driver education programs than 18-year-olds not participating in driver education. Similarly, 19-year-old male driver education graduates have a greater collision rate -- driver education graduates collision rate per 1,000 drivers is 184, opposed to 174 for those without training.

Table XIV

ILLINOIS STUDY OF TEEN-AGE ACCIDENT RECORDS
HIGH SCHOOL DRIVER EDUCATION COMPARED TO NON-DRIVER EDUCATION

	Driver Education Graduates				No High School Driver Training			
	Collision Rate Per 1,000 Drivers				Collision Rate Per 1,000 Drivers			
Age	Both Sexes	Male	Female	No. of Drivers	Both Sexes	Male	Female	No. of Drivers
16	7	10	4	58,284	11	14	6	30,426
17	33	47	18	38,837	40	52	22	55,405
18	76	110	42	34,665	77	102	37	60,964
19	129	184	61	30,460	129	174	57	83,252
20	137	218	77	14,586	178	250	73	109,897

Doubt may be cast on the validity of reports on the value of driver education which do not provide information as to the conditions under which the test and control groups are operating. For instance, in the Illinois study, all drivers' records were utilized, raising the following questions: Were there geographical differences between the two test groups -- rural or suburban? Were psychological factors reflecting attitudes on driver education present? And, were other factors including the percentage of school dropouts reflecting variations in exposure rates present to the degree that the findings may not be valid?

At the July 20 meeting of the Committee, Dr. John Conger, Colorado University Medical School, outlined tentative findings concerning a study of 4,500 high school students in the Denver area. A sampling of 513 students of the 4,500 studied reveals the following rough estimates for accident rates, economic status, exposure, and intelligence of the three groups -- Group I (students voluntarily participating in driver education); Group II (students wanting to participate, but not able to); Group III (students who did not wish to participate and did not participate).

Mean Accident Rate

	Group I	Group II	Group III
All Acc.	.49	.62	.39
Acc. at Fault	.22	.32	.29
Violations	1.38	2.33	2.38

Economic Status

	Group I	Group II	Group III
Per Cent Deprived	18	34	19
Per Cent Non-deprived	82	66	81

Exposure

	Group I	Group II	Group III
Average Miles Driven	4,870	6,350	6,420

Number of Students

	Group I	Group II	Group III
Above Average Intelligence	36	25	33
Average Intelligence	52	57	59
Below Average Intelligence	12	18	8

Generally, the aforementioned estimates indicate that teenagers participating in driver education courses achieved a better record but drove fewer miles. Also, the youngsters in Group I were less economically deprived. The differences in driving records appear to fade out when controlled for amount of exposure.