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A STUDY TO DETERMINE THE DRIVING EXPERIENCE OF
YOUTH FROM INGHAM COUNTY HIGH SCHOOLS DURING
A THIRTY-DAY PERIOD BETWEEN RECEIVING A DRIVER
EDUCATION CERTIFICATE AND BEING ABLE TO
APPLY FOR A MICHIGAN DRIVER'S LICENSE.

Michigan State University, Ph.D., 1972
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A STUDY TO DETERMINE THE DRIVING EXPERIENCE OF YOUTH
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PERIOD BETWEEN RECEIVING A DRIVER EDUCATION
CERTIFICATE AND BEING ABLE TO APPLY FOR A
MICHIGAN DRIVER'S LICENSE

By

James William Counts

A THESIS

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ABSTRACT

A STUDY TO DETERMINE THE DRIVING EXPERIENCE OF YOUTH
FROM INGHAM COUNTY HIGH SCHOOLS DURING A THIRTY-DAY
PERIOD BETWEEN RECEIVING A DRIVER EDUCATION
CERTIFICATE AND BEING ABLE TO APPLY FOR A
MICHIGAN DRIVER'S LICENSE

By

James William Counts

In 1968 Public Act No. 263 was passed in Michigan and established that no operator's license would be issued until at least thirty days after a youth had obtained a temporary instruction permit or a validated driver education certificate. This law was enacted in the hope that the beginning teenage driver would obtain more supervised driving before driving an automobile alone. It was expected that this thirty-day experience would supplement those driving experiences received in driver education.

This study was designed to gather and analyze data pertaining to the parental involvement in assisting their children in the development of driving skills, and to determine the experiences youth received during this thirty-day period. The information obtained provides the only data available to date in this area.

Description of the Methods, Techniques
and Data Used

A sample of 200 youth who had successfully completed driver education in one of the public high schools in Ingham County during the summer of 1971 was randomly selected from a total population of 1949 youth. Of these 200, 180 youth were interviewed.

An interview guide questionnaire was developed to gather the data. Interviews were conducted only in those schools that willingly participated and with students who were willing.

A descriptive analysis of the data was made for pertinent information about the interviewee, types and amount of driving secured in both the thirty-day interim period and in driver education, and the attitude of the youth toward the interim time.

The data were also analyzed to determine whether or not a relationship existed between the following:

1. Driving experience youth obtained in the interim period and educational level of the parents or guardians.
2. Age of the youth and driving experience secured in the thirty-day interim period.
3. Driving experience obtained in the interim period and the driving experience obtained in driver education.
4. Number of cars in the family available for the youth to drive during the interim time.

5. Individuals the youth lived with and the driving experience secured in the thirty-day period.
6. Year in high school and the driving experience obtained in the interim period.
7. Effect of having an older sibling driving and experience driving obtained in the thirty-day interim period.
8. Driving experience secured in the interim period and the sex of the youth.

The specific findings of this study are many in number. A limited number of these findings are as follows:

Only 22.22 per cent of the parents or guardians of the youth had explained to them by the driver education teacher what could be done during the thirty-day interim period to improve the driving of their youth.

Most youth tend to drive more with the mother than the father.

Of those youth interviewed, 1.67 per cent did not have a validated driver education certificate or a temporary instruction permit which would license them to drive during the thirty-day period.

Youth drove in residential areas during daylight hours during the interim period more than any other area or time.

The data indicated that during driver education more youth had exposure driving on freeways than other experiences.

Youth receive very limited supervised driving in business areas in either the interim period or driver education.

Many youth did not secure driving experience during driver education or the interim time when darkness was present.

There is a relationship between the educational level of the parents or guardians and the driving experience secured in the interim period.

Youth who did not experience driving on a certain roadway or area during the interim period attributed this to the parents' or guardians' seeing no necessity for such experience.

The data revealed that the youth who did not obtain driving experience while in driver education stated the teacher did not provide such experience or had no time for it.

Dedicated to my parents,
Francis and Virginia,
for their love and understanding.

ACKNOWLEDGMENTS

Sincere appreciation is expressed to the following persons for their assistance, guidance and encouragement:

The doctoral guidance committee: Dr. Robert E. Gustafson, chairman; Dr. Samuel A. Moore, II; Dr. Robert O. Nolan; and Dr. Robert C. Trojanowicz.

Professor Emeritus Leslie R. Silvernale and Mr. Malcolm D. Whale, retired, Coordinator of Traffic and Safety Education, Michigan Department of Education, for their assistance.

The Ingham County school districts and the youth from the respective high schools who generously participated.

Finally, to the members of the Highway Traffic Safety Center staff for their time, advice and encouragement toward the successful completion of the study.

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CHAPTER I

THE PROBLEM

Statement of the Problem

There appears to be no aspect of traffic safety that needs more urgent attention than the problem of the young driver. The available facts establish teenage and young adult drivers are an extraordinarily high accident group.

The proportion of drivers from 15 through 24 years has more reported crashes and more citations per 100 drivers or per million miles traveled than do any other group.¹ These motorists constitute less than 20 per cent of the total driving population, yet they comprise nearly one-third of the dead and injured. In 1970 this age group accounted for 36.1 per cent of all drivers involved in fatal accidents in Michigan but constituted only 23.5 per cent of the state's driving population.²

¹National Safety Council, Accident Facts: 1971 (Chicago: National Safety Council, 1971), pp. 8, 9.

²Michigan Department of State Police, Michigan Traffic Accident Facts: 1970 (Michigan: Department of State Police, 1971), p. 18.

Statistics for a smaller segment of this age group, those nineteen years old and younger, seem to be of even more interest because most of these individuals would have recently completed driver education. Table 1.1 illustrates the fatal accident rate involvement for this age group, as prepared by the Michigan Department of State Police for the year 1970.³

TABLE 1.1.--Fatal Accident Rate for Youth in 1970.

Age of Driver	Number of Drivers Killed in 1970	Per cent of Total Fatal Accident Involvement	Per cent of Drivers in Total Driving Population
16 years and under	71	2.6	1.27
17 years	106	3.8	2.25
18-19 years	264	9.5	5.37
Group Total	441	15.9	8.89

Klein reported, in a survey of drivers, that the proportion of violations, fatalities, and reportable accidents involving licensed teenagers was significantly

³Michigan Department of State Police, Michigan Traffic Accident Digest: 1970 (Michigan: Department of State Police, 1971), p. 6.

higher than that of any other group of drivers.⁴ However, he stated a true picture of accident and violation rates could not be acquired without a complete study of the young drivers' types and amount of exposure. McFarland and Moore in their analysis, Youth and the Automobile, pointed out that youthful drivers have a disproportionately higher accident rate than adults. Explanations offered by them for this fact included the young drivers' relatively shorter driving experience.⁵

Silvernale and Whale stated that young drivers do not get enough practice or have enough experience in all types of environments under instructional or parental supervision and that their problems stem from lack of experience, particularly during the first year of driving.⁶ The Indiana State Police, in a research project, attributed the cause of 263 deaths of youthful drivers to a lack of road experience.⁷

⁴David Klein, "A Reappraisal of the Violation and Accident Data on Teen-Age Drivers," Traffic Quarterly, XX (October, 1966), 502-510.

⁵Ross A. McFarland and Roland C. Moore, "Youth and the Automobile," Accident Research, William Haddon, Jr., and Edward A. Suchman and David Klein, editors (New York: Harper and Row, 1964), pp. 465-477.

⁶Leslie R. Silvernale and Malcolm D. Whale, "Does Driver Education Go Far Enough?", Traffic Safety, Vol. 69, No. 9 (September, 1969), 10-12, 40, 42.

⁷Indiana Department of State Police, Indiana Highway Deaths (Indiana: Department of State Police, 1967), p. 3.

Recent research has been done in Michigan focusing on the driving of teenagers. Clearwater conducted a study in 1970 to determine and present a more definitive description of the problems the 16 year old has early in his driving career by researching fatal accidents in which the 16 year old driver was involved.⁸ Emery did a study that centered on the young driver's problems and his pattern of driving.⁹ It has not, as yet, been determined what driving experiences beginning teenage drivers receive under the supervision of their parents.

The problem to be answered is what types and amount of experience youthful drivers receive under parental direction. Specifically, in Michigan, what is the experience during the thirty-day period of time from the date of obtaining a validated driver education certificate or a temporary instruction permit to the time at which the youth can apply for a driver's license? It is with this question and its ramifications that this study is concerned. It was the belief of the researcher that until these questions were answered, modifications in the experience received in the behind-the-wheel phase of driver education

⁸Harvey Elting Clearwater, "A Study of Certain Factors in the Fatal Traffic Accidents of 16 Year Old Drivers in Michigan, 1967-1969" (unpublished doctoral dissertation, Michigan State University, 1970), p. 4.

⁹Sister Marie Therese Emery, O.P., "A Study of Certain Factors Related to the Patterns of Driving, Accident and Violation Rates of 436, 17 and 18 Year-Old Licensed Drivers From Two Lansing Catholic Schools" (unpublished doctoral dissertation, Michigan State University, 1969), p. 3.

and communications to parents as to how they could contribute in a more meaningful manner in the development of the youthful driver would have little significance.

Importance of the Study

In 1955 the State of Michigan passed a law that no operator's license shall be issued to any person under the age of eighteen unless this person has successfully completed a driver education course or a course approved by the Department of Education as an equivalent. Realizing that there might be circumstances creating undue hardships for some individuals to meet this requirement, the legislation permitted that a restricted license be issued in such cases.¹⁰

In 1968 Public Act No. 263 was passed and established that no operator's license would be issued until at least thirty days after the student had obtained a temporary instruction permit or a validated driver education certificate. This law was enacted in the hope that the beginning teenage driver would experience more supervised driving before driving an automobile alone. It was expected that this thirty-day experience would supplement those driving experiences received in driver education.

This study was designed to gather and analyze data pertaining to the parental involvement in assisting

¹⁰Michigan Department of Education, Driver Education Programming (Michigan: Department of Education, 1970), pp. 2-3.

their children in the development of driving skills, and to determine the experiences youth received during this thirty-day period. The information obtained will provide the only data available to date in this area.

Purpose of the Study

The purpose of the study was to determine if the law passed by the Michigan legislation is providing the additional supervised driving experience that youth need after completion of driver education. More specifically, the study was concerned with the types and amount of experience youth received under the direction of their parents. This study is both descriptive and statistical in nature.

It was also the purpose of the study:

1. To determine the nature of relationship between the educational level of the parents or guardians and the driving experience the youth secured.
2. To determine the nature of relationship between the age of the youth and the driving experience that he received.
3. To determine the nature of relationship between the driving experience received during the thirty-day interim period and the driving experience received in driver education.

4. To determine the nature of relationship between the number of cars in the family and the driving experience the youth acquired.
5. To determine the nature of relationship between the parents or guardians with whom the youth lives and the driving experience the youth received.
6. To determine the nature of relationship between the year in high school in which driver education was taken and the driving experience the youth procured.
7. To determine the nature of relationship between the grade received in driver education and the driving experience obtained.
8. To determine the nature of relationship between having an older sibling who has successfully completed driver education and the driving experience acquired.
9. To determine the nature of relationship of the sex of the youth and the driving experience attained.

Definition of Terms

For the purpose of the study, the following terms were defined:

1. Interim Period. The thirty-day period of time that a student under the age of sixteen having had his driver education certificate validated must wait before he can apply for a driver's license. However, if the student is sixteen or older, it is the thirty-day period that he must wait after he has received a temporary instruction permit before he can apply for an operator's license.
2. Educational Level of Parents or Guardians. The number of years of school completed by the parents or guardians.
3. Number of Vehicles. The number of vehicles available at the residence of the student during this thirty-day period.
4. Adult. Any person over the age of twenty-one who possessed a valid Michigan driver's license.
5. Driving Experience. The amount and types of driving the student did during the thirty-day interim period on public roadways.
6. Driver Education Certificate. Certificate of successful driver education course completion presented by the State Department of Education through the school offering the class.
7. Temporary Instruction Permit. Permit issued by a driver licensing examiner to an applicant, allowing the individual to operate a motor vehicle on the highways when accompanied by a licensed adult operator

or chauffeur who is actually occupying the seat beside the driver.

8. Freeway. A divided arterial highway for through traffic with full control of access and with all crossroads separated in grades from pavements for through traffic.¹¹
9. Business. Areas where territory contiguous to a highway when 50 per cent or more of the frontage thereon for a distance of 300 feet or more is occupied by buildings in use for business.¹²
10. Residential. Areas where territory contiguous to a highway not comprising a business district when the frontage of such highway for a distance of 300 feet or more is mainly occupied by dwellings or by dwellings and buildings in use for business.¹³
11. State Highway. A roadway under the jurisdiction of a state department of highways.
12. Rural Road. Any road not within a town, city or metropolitan area.
13. Trip. Driving for an undisrupted period of thirty minutes or more at highway speeds or at speeds safe for the road conditions.

¹¹Michigan Department of State, Michigan Vehicle Code: 1968 (Michigan: Department of State, 1968), p. 9.

¹²Ibid., p. 6.

¹³Michigan Department of State, op. cit., p. 13.

14. General Assistance. The response of youth when the assistance they received during the interim period was of a general nature and did not mention anything specific in which they procured help. An example would be parents assisting in the watching of traffic.

Delimitations

The study was limited in the following manner:

1. A universe of high school students from Ingham County Public High Schools, who completed driver education, was defined as the population of interest. These students all successfully completed driver education during the summer of 1971.
2. No more than three attempts were made to interview the selected students.
3. Interviews were conducted only in those high schools and with those students that willingly participated.
4. Data provided by the study will be relevant only to those students who successfully completed driver education in a public high school in Ingham County during the summer of 1971.
5. The sample was limited to in-school high school students.

Assumptions

1. It was assumed that the data collected, as recorded, from the interviewees were reliable for the purposes of the study.

2. It was assumed the driving experiences in Lansing business areas were similar to those in Jackson.

Organization of the Study

In Chapter II relevant literature is reviewed related to parental involvement in the supervision of children learning to drive. Also, a development of the law in Michigan requiring youth to wait the interim period is presented.

Chapter III deals with the design of the study, definition of the universe, method of sampling and development of the interview guide questionnaire.

In Chapter IV there appears both a statistical and descriptive analysis of the data obtained.

Chapter V contains the summary, conclusions and recommendations of the findings.

CHAPTER II

REVIEW OF RELATED LITERATURE

At the outset of the study, it became quite apparent that literature relating to the purpose of the study was limited. There have been studies attempting to present a more accurate picture of the young driver by studying the types and amount of driving exposure that he has had. However, there is only a limited amount of material available pertaining to parental supervision of a child in relating to the types and amount of driving experience obtained under the direction of the parent.

This chapter is divided into two sections. The first pertains to the development of the law, Public Act No. 263, which requires a youth to wait a minimum of thirty days after the successful completion of driver education class until the time at which he can apply for a driver's license. In the second section, literature pertinent to parent supervision of youth learning to drive is presented.

Development of the Law

The State of Michigan became an early leader in educating the youthful driver when it became the first

state to claim 100 per cent enrollment in driver education for its public school students. Legislation commonly called the "Michigan Law" was responsible. This law was passed in 1955. The legislation stated that driver education courses shall be conducted by the local public school district and enrollment in driver education shall be open to children enrolled in the high school grades of public, parochial and private schools as well as to resident out-of-school youth.¹⁴ The law also stipulated that a beginning student driver could not obtain his driver's license until he was eighteen unless he successfully completed an approved driver education course.¹⁵

As a result of this legislation, all public high school districts had to make available a driver education course to those students living in the school district. Various types of driver education programs developed. The types of high school curriculums developed along a continuum. At one end were driver education programs consisting of range, simulation, behind-the-wheel and classroom; while at the other end were those comprising behind-the-wheel and classroom only. However, even though the curriculums varied greatly, the time standard accepted was basically the same from school district to school district.

¹⁴Michigan Department of Education, Driver Education Programming, loc. cit., p. 2.

¹⁵Ibid.

Most of the Michigan high schools offering driver education adopted a curriculum consisting of thirty clock hours per student in the classroom and the equivalent of six hours of behind-the-wheel instruction per student.¹⁶ Thus, the majority of school systems have a minimum program as recommended by the National Commission on Safety Education.¹⁷

The Michigan Department of State toward the end of the 1950's and early 1960's recognized that many youth were obtaining a driver's license shortly after the completion of the driver education class.¹⁸ Members of the Highway Traffic Safety Center at Michigan State University, the Department of Education, members of the Governor's Regional Traffic Safety Conference, and other concerned individuals involved in traffic safety recognized a void existing in the preparation of beginning teenage drivers. These concerned individuals recognized that a driver education curriculum on a time standard of six hours of behind-the-wheel driving experience under the driver education instructor's supervision could only provide basic driving skills. They realized the time of instruction was not

¹⁶Statement by Robert Yake, Michigan Department of State, June 8, 1971, personal interview.

¹⁷National Commission on Safety Education, History of Driver Education in the United States (Washington: National Education Association, 1966), p. 22.

¹⁸Statement by Malcolm D. Whale, Coordinator, Traffic and Safety Education, Michigan Department of Education, January 19, 1971, personal interview.

adequate because of the increased volume of traffic, both urban and suburban, and the high speeds encountered on turnpikes and freeways. These demand a much greater level of skill than could be attained in six hours of behind-the-wheel instruction. The solution of the problem appeared to be an interim period between the completion of driver education and the time at which a driver's license would be issued to the youthful driver.¹⁹ During the period, the student who successfully completed driver education would be allowed to drive under the supervision of the parents.

In 1964, the Highway Traffic Safety Center at Michigan State University took the position that:

. . . when a student completes an approved high school driver education course, he be required to drive a minimum of 90 days with a parent or legal guardian after validation of the driver education certificate by a driver licensing agency before applying for his first license
 . . .²⁰

In response to Governor Romney's request, the staff of the Highway Traffic Safety Center undertook a study in 1966 of how to improve driver education.²¹ The

¹⁹Whale, loc. cit.

²⁰Michigan State University, Statements of Position: Recommendations of the Special Commission on Traffic Safety (East Lansing: Highway Traffic Safety Center, 1964), p. 31.

²¹Michigan State University, Legislation Needed for Improving Driver Education in Michigan (East Lansing: Highway Traffic Safety Center, 1966), p. 2.

staff interviewed individuals throughout the state and the findings in relationship to an interim report were

1. In response to the question, "What are the weaknesses of driver education?," more than half of those interviewed volunteered comments relative to the lack of sufficient practice driving instruction and to the need for a wider variety of practice driving experience.
2. More than half of those interviewed suggested more practice driving and a greater variety of driving experiences in response to the question, "What suggestions do you have for the continued development or improvement of driver education?"
3. When students were asked, "What have you learned about driving since taking driver education that you feel should have been taught in driver education?," there was unanimous agreement that a greater variety of practice driving should have been offered.
4. Three out of four of those interviewed (including students) felt that students should be required to drive with their parents for a period of time following completion of the driver education course.²²

As a result of this study, the aforementioned agencies and concerned individuals made a recommendation that an interim period be established for ninety days.²³

In 1967, the Secretary of State made an administrative ruling that all youth who had successfully completed an approved driver education course must wait at least thirty days before he could apply for a driver's license.²⁴

²²Michigan State University, Legislation Needed for Improving Driver Education, op. cit., pp. 15-16.

²³Whale, loc. cit.

²⁴Yake, loc. cit.

The decision allowed for students: (1) to drive on a validated driver education certificate or a temporary instruction permit; (2) those who were fifteen and a half years old would be allowed to drive only with a parent or legal guardian; (3) those sixteen years of age would have to obtain a temporary instruction permit and at the time of application for this permit would have to present a driver education certificate, this would allow him to drive with a licensed adult (must be twenty-one years of age); (4) those who reach the age of sixteen during the thirty-day period and possessed a validated driver education certificate would have to obtain a temporary instruction permit, however the interim period would be accumulated from the day that the driver education certificate was validated.²⁵

The State of Michigan encountered extreme difficulty in administering this decision. As a result, the legislation passed Public Act No. 263 in 1968, which established as law what had previously been a ruling by the Secretary of State.²⁶

The law established that those students who have a driver education certificate and are under the age of sixteen:

1. Must take the written, oral, road sign and vision tests and the licensing examiner records the results on the back of the driver education certificate.

²⁵Whale, loc. cit.

²⁶Yake, loc. cit.

2. If all tests are passed, the examiner will complete the reverse side of the driver education certificate and validate with the station's identification stamp, date and sign.
3. After the driver education certificate is validated by the licensing examiner, the student must wait a minimum of thirty days before applying for a driver's license.

During this thirty-day period the student is permitted to drive only with a parent or legal guardian.

The legislation further provided that youth between the ages of 16 and 18 must obtain a temporary instruction permit. In order to do this, he must:

1. Have an approved driver education certificate and a parent, guardian or responsible adult's signature.
2. Pass the written, oral, road sign and vision tests.
3. Wait thirty days after the issuance date typed on the instruction permit before applying for a driver's license.²⁷

However, this individual is allowed to drive with any licensed adult who is twenty-one years or older.

In addition, the law states that if a student is using a validated driver education certificate as his permit to drive and during the interim period reaches the age of sixteen, he must obtain a temporary instruction permit in order to continue driving. However, the

²⁷Michigan Department of Driver Licensing, Michigan Driver Examiner's Manual (Michigan: Department of Driver Licensing, 1970), pp. 4-5, 11-12.

thirty-day period will be counted from the day the driver education certificate was validated.

Parental Supervision

In 1949 the first National Conference on High School Driver Education made a recommendation that a minimum time of thirty hours of classroom instruction and six hours of actual driving instruction be an acceptable program.²⁸

The minimum requirement of six hours instruction behind-the-wheel deemed adequate in 1949 does not appear to be sufficient for today's more varied conditions and traffic demands that a new driver must face. Smith states that the beginning driver cannot be taught the advanced driving techniques that are necessary to drive in today's society within the confines of a thirty and six driver education program even with the aid of such innovations as multi-media, multiple car ranges and driving simulators.²⁹ The available statistics support Smith's conclusion. The death toll for the young drivers for 1970 was 18,000 and the injuries came to nearly one million. These motorists constitute less than 20 per cent of the driving

²⁸ National Commission on Safety Education, loc. cit.

²⁹ Donald L. Smith, "A Supplemental Program in Traffic Safety Education," Journal of Traffic Safety Education, Vol. XVII, No. 3 (March, 1971), 35.

population. Yet, they comprise nearly one-third of the dead and injured.³⁰

Lack of experience in the driving environment is considered a major factor in accident involvement of teenage drivers. The number of youthful (15 to 24) drivers in Michigan involved in accidents is the highest of any age group, accounting for 36.1 per cent of all driver incul-pated in fatal accidents. This same age group accounts for only 23.5 per cent of the driving population.³¹ In a report by Silvernale and Whale, they attribute this phenomenon to the fact that young drivers do not get enough practice in different types of traffic situations under the instructional or parental supervision, particularly during the first year of driving.³² The State of Indiana, in a research project conducted by the State Police, contributed the cause of 263 deaths of beginning teenage drivers to a lack of driving exposure.³³

Schlesinger states that the new driver does not have the experience and skill to size up the situation and take corrective action. He declared that most teenagers

³⁰National Safety Council, loc. cit.

³¹Michigan Department of State Police, Michigan Traffic Accident Digest, loc. cit.

³²Silvernale and Whale, loc. cit.

³³Indiana Department of State Police, loc. cit.

are having their first accident due to the newness and inexperience of driving.³⁴ MacDowell makes the point that:

It should be stressed to the parents that the teacher can demonstrate and teach the fundamental skills in the school car, but due to the limited time available, practice and the perfection of these skills must be done in the family car.³⁵

Others have realized, like the State of Michigan, that a thirty and six driver education program offered by secondary schools is not sufficient by itself. San Diego County, in 1969, initiated a new traffic safety education program to improve the experiences that youth would receive that would not be possible in a conventional 30-6 program. The new course consists of multiple phases of instruction, including regular classroom, multi-media, simulation, multiple car off-street driving range and behind-the-wheel instruction. The content is based on performance objectives; each phase is scheduled over a full semester with more than 80 hours of instruction per student.³⁶

Individuals involved in traffic safety have also realized, like those in Michigan, that parents have an excellent potential for assisting their youngsters. In a research project attempting to change negative attitudes

³⁴Lawrence E. Schlesinger, Is There A Teen-Age Driver in Your House? (New York: The New American Library, Inc., 1967), pp. 17-27.

³⁵Gene MacDowell, "Teacher-Parent Cooperation Means Quality Traffic Safety Education," California Journal of Traffic Safety Education, XVII (March, 1970), 21.

³⁶Thomas A. Seals, "San Diego Takes a New Look," Safety, Vol. VI, No. 3 (May-June, 1970), 16-18.

of adolescents toward driving by George Washington University, researchers stated that parents may be able to sustain attitudinal changes initiated by a program after it has been terminated. "The parent is potentially an important factor in the freezing process."³⁷ In this study it was the aim of the researchers to develop and evaluate methods of influencing the driver behavior of male adolescent traffic violators.

They hypothesized that modifications of the adolescent's driver behavior are more likely to occur if the parent as well as the adolescent can be included in a program. It further reported that one of the major difficulties in stabilizing attitudes at a different level lies in the lack of control by the investigator over the non-experimental environment of the subject. Herein lies a problem paralleling those of traffic safety educators in the secondary schools; that of having a student perform in an acceptable manner while in the driver education course, but as soon as he finishes the class, driving with a negative attitude.

The study points out that the parent has the advantages that the experimenter does not have or a school would not have, in that:

1. The parent is in daily intimate contact with the adolescent.

³⁷George Washington University: Driver Behavior Research Project (Washington: Department of Psychology, 1965), pp. 25-26.

2. Parents are in control of a number of rewards and punishments.
3. Parents are directly involved (financially, legally, morally) in the behavior of their adolescents.³⁸

A survey questionnaire administered at the 1970 national convention of the American Association of School Administrators, the National School Boards Association, and the National Education Association, and a special mail survey to 300 school superintendents found that the idea of having the parents provide post-driver education supervised driving experience for the new driver drew virtually unanimous support from all. They reported:

Teachers were most emphatic, supporting the concept by 83 percent; school board members were least enthusiastic of the groups, but still in strong support, 63 percent.³⁹

In Janesville, Wisconsin, a pilot project involving parents was conducted called the Extended Driver Education Laboratory Enrichment Project. The research was done with a systematic home-school program for the purpose of determining potential accomplishment beyond the traditional driver education course. One conclusion was, "The parent can play an important role in assisting the school in

³⁸George Washington University, loc. cit.

³⁹Kenneth F. Licht, "What Do School People Think About Driver Education?," Traffic Safety, Vol. LXXI, No. 7 (July, 1971), 14-16, 39.

upgrading and improving the total driver education instructional program."⁴⁰

The State of California is undertaking a similar program to that of Janesville. The plan selected is termed the "Extended Driver Instruction Enrichment Plan." Basically, this plan establishes a method of parental supervision in the driving phase of the driver education course. California instituted this project from a belief that driver education courses are only beginning to prepare students for meeting the increasingly complex driving environment.⁴¹ The National Transportation Safety Board in a report stated that after completion of the formal course, a new driver needs additional supervised experience for many months. With guidance from the professional instructors, parents might be helped to make this probationary period most effective.⁴²

Throughout the literature, there seems to be an almost universal recognition that students need additional supervised instruction after completion of the 30-6 driver education program. An approach that utilizes parents, who

⁴⁰Automotive Safety Foundation, Extended Driver Education Laboratory Enrichment Project (Washington: Automotive Safety Foundation, 1969), p. 1.

⁴¹Robert Terry, Extended Driver Education Enrichment Plan, California State Department of Education, Bureau of Elementary and Secondary Education (Sacramento: State Department of Education, 1970), p. 1.

⁴²National Transportation Safety Board, Special Study, Youth and Traffic Safety Education (Washington: Government Printing Office, 1971), pp. 9-10.

are concerned with the development and safety of their children, looms as an effective means of accomplishing this.

Summary

This chapter was divided into two sections. The first related to the development of the law, Public Act No. 263, which requires youth to wait a minimum of thirty days after the successful completion of driver education class until the time at which he applies for a driver's license. In the second section, literature pertinent to parent supervision of youth learning to drive was presented.

In the ensuing chapter the design and methodology of the study is presented.

CHAPTER III

DESIGN AND METHODOLOGY OF THE STUDY

Introduction

The review of literature was presented in the preceding chapter. In this chapter, the design and methodology of the study are presented. The study was designed to determine the types of driving experience and the amount of driving youth received under the supervision of their parents, legal guardians or adults between the thirty-day period of obtaining a validated driver education certificate or a temporary instruction permit and the time at which the youth could apply for a driver's license.

A population of 1949 high school students from the public high schools located in Ingham County who had successfully completed driver education during the summer of 1971 was defined as the population of interest.

Research Questions to be Answered

The concern of the study was the driving experience youth received with parental supervision or adult

supervision during the thirty-day interim period. In addition to obtaining information in regard to this, data were desired to determine:

1. The nature of relationship between the educational level of the parents or guardians and the driving experience the youth secured.
2. The nature of relationship between the age of the youth and the driving experience received.
3. The nature of relationship between the driving experience received during the thirty-day interim period and the driving experience received in driver education.
4. The nature of relationship between the number of cars in the family and the driving experiences the youth procured.
5. The nature of relationship between the parents or guardians that the youth lives with and the driving experience he acquired.
6. The nature of relationship between the year in school in which driver education was taken and the driving experience the youth procured.
7. The nature of relationship between the grade earned in driver education and the driving experience obtained.

8. The nature of relationship between having an older sibling who had successfully completed driver education and the driving experience acquired.
9. The nature of relationship of the sex of the youth and the driving experience secured.

Sample Selection

In preparation for drawing the sample, each superintendent and principal of the various public high schools of Ingham County Michigan was sent a letter of introduction by the State Department of Education explaining the purpose of the study (Appendix A).

A week after the letter was sent, each of the principals of the high schools was contacted to obtain permission to conduct the study in the respective schools. It was found, at this time, that one high school was not offering driver education, and one principal did not want his high school involved in the study. Also, a principal of one of the high schools requested that a letter be sent to all parents whose children were selected in the study explaining the purpose of the research. This letter appears in Appendix B.

It was determined that a sample of 10 per cent of the total population of 1949 would be representative. It was resolved that data obtained from this sample size of students would provide reliable information for the study.

A systematic probability sample of 200 students was drawn so that every student who had successfully completed an approved driver education course in the county had an equal chance of being selected (Appendix C).

Method of Selection

During the summer of 1971, a total of 1949 students successfully completed driver education in ten Ingham County public school districts. It was determined that a sample of 190 youth would be an adequate sample. From the total population, 200 students were selected. The additional youth were employed if an originally selected interviewee did not wish to be interviewed, had moved away, or after three attempts to contact him failed. A total of 180 youth were interviewed for the research.

A table of random numbers was employed to designate those students to be interviewed. A list of all students' names was prepared for each of the various high schools. The numbering of the students was continuous from one through the total population of 1949. The random number that corresponded with the assigned number of the student was determined to be an interviewee.

Development of the Instrument

A personal interview technique was employed as the methodology for gathering the data because of the higher validity associated with this method as compared to other means. Also, by employing this method, it was possible to

sense when the respondent did not understand a question and did, within limits, allow for repeating or rephrasing the question. Most important, the interview permitted probing into the context of, and reasons for, answers to questions.

A standardized interview guide questionnaire was developed by the researcher. The instrument was divided into five integral parts. These areas being: (1) information about the parents, guardians and family; (2) information regarding interviewee; (3) amount of driving experience and types of experience received during the interim period; (4) information concerning amount of driving experience and types of experience obtained in driver education; and (5) the attitude of interviewee toward the interim period. The interview guide questionnaire appears in Appendix D.

Procedure for Collecting the Data

From each of the high schools that participated in the study, a list of those public in-school high school youths who had successfully completed driver education during the summer of 1971 was obtained.

The principals of each of the respective high schools was contacted, at which time an interview schedule was established. At four of the schools administrators asked that the students be interviewed before or after school.

Each of the students designated for interviewing had it explained to him that the data gathered would in no way influence his driver licensing or driving record, and that it would be used for educational purposes only. It was also stressed that participation was strictly voluntary on his part. As mentioned previously, three attempts were made to interview the original designated students before contacting an alternate respondent.

Treatment of Data

Frequency distributions, means and percentages were used to show the amount of driving and types of experiences the youth received during the interim period. The amount of driving referred to an estimate of the total amount of time spent driving a car measured in hours. Types of experiences referred to the types of roadway, types of geographical areas, and types of adverse driving conditions encountered.

Frequency distributions were developed for the following:

1. Number of students who drove in business and residential areas.
2. Number of students who drove on the various types of roadways:
 - a. Freeway entrance ramps.
 - b. Freeway exit ramps.
 - c. Freeways.
 - d. State highways.

- d. State highways.
 - e. Rural roads.
3. Number of students who drove when an adverse driving condition existed:
 - a. Rain.
 - b. Fog.
 - c. Darkness.
 4. Number of students who drove on a trip.
 5. Number of students who drove in downtown Lansing or Jackson.
 6. Person with whom the student did most of his driving.
 7. Number of students who felt parents or guardians were willing to let them drive.
 8. Attitudes of students toward the thirty-day interim period.
 9. Number of students who felt that parents, guardians, or adults instructed them in the same manner they were taught in driver education.
 10. Attitude of students about having a parent, guardian or adult in the car.
 11. Number of students who believed that parents, guardians or adults provided assistance.
 12. Problems encountered by the student while driving during the interim period and in driver education.

The Pearson Product Moment for Correlation was employed to determine the nature of relationship of items one through three mentioned under the topic of Research Questions to be Answered at the beginning of this chapter. The test for analysis of variance was utilized to determine the relationship of items four through nine in the section mentioned. For statistical analysis of the data for significance of relationship, the .05 level was used. Also, a table for each of these was developed to illustrate the amount of relationship existing.

Summary

In this chapter the research questions to be answered, sample selection, method of selection, development of the instrument, and treatment of the data were presented.

In the following chapter the analysis of the data may be found.

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

In the preceding chapter the design and methodology of the study was presented. In this chapter the analysis of the data may be found. The chapter is divided into three sections: pertinent information from interviewee, descriptive analysis of driving experience during the interim period and in driver education, and a statistical analysis of relationships.

Pertinent Information from Interviewee

This section is concerned with the following:

- A. Driver education programs for guardians or parents.
- B. Opinions of the youth on the effect of having an older sibling driving and the willingness of his parents or guardians to let him drive.
- C. The difference between the car used in the interim period and the one employed in driver education.

D. Amount of driving done with mother, father, female guardian, male guardian or other adult.

Driver Education Program

Data from the sample indicated that 22.22 per cent of the parents or guardians were contacted by the driver education teacher explaining how they could use the interim period to develop the youth into a more competent driver. The means by which this was done are described in Table 4.1. The most common method employed was a letter sent by the driver education teacher to the parents. Fourteen and forty-four hundredths per cent were contacted by this method. The other means used were by phone or through driver education programs conducted for parents.

TABLE 4.1.--Method of Contacting Parents* by Driver Education Teachers to Explain Interim Period.

Method	Number of Parents* From Sample	Per cent of Sample**
Letters	26	14.44
Program	13	7.22
Phone	1	.56

*Parents, guardians or adults

**Sample of 180

Effect of Older Sibling

It was revealed from the data that 31.11 per cent of the youth were of the opinion that having an older sibling driving in the family played a role in the amount of experience they received during the interim period. This information is presented in Table 4.2.

TABLE 4.2.--Opinion of Youth as to Whether the Driving Experience They Received in the Interim Period was Effected by Having an Older Sibling Driving.

Method	Number of Parents* From Sample	Per cent of Sample**
Parents more Willing	40	22.22
Not as Willing	16	8.89
Total	56	31.11

*Parents, guardians or adults.

**Sample of 180.

Car Used

The data as denoted in Table 4.3 indicated that 47.22 per cent of the youth stated that the car available to drive during the thirty-day interim time was different from the one used in driver education and these differences created problems for them. The data indicated:

1. Six and sixty-seven hundreds per cent of the youth stated the car at home was smaller.
2. Eight and thirty-three hundreds per cent indicated the car was larger than the one used in driver education.
3. Nineteen and forty-four hundreds per cent revealed the car at home had a stick shift.
4. Eleven and sixty-seven hundreds per cent of the youth denoted that the car driven during the interim period lacked power equipment.

TABLE 4.3.--Features of Cars at Residence Compared to Driver Education Cars.

Item Differing	Number of Youth From Sample*	Per cent of Sample*
Smaller Than	12	6.67
Larger Than	15	8.33
Standard Shift	35	19.44
Lacked Power Equipment	21	11.67
Other	2	1.11
Total	85	47.22

*Sample of 180.

Amount of Driving with Adult

Presented in this section are the data concerning the amount of driving the youth did with (1) the mother, (2) the father, (3) female guardians, (4) male guardians, and (5) other adults. Also, data concerning why the youth believed he drove with one parent more than the other is specified. These data are presented in Figures 4.1 through 4.3 and in Table 4.4.

From the sample data about driving with parents in Figure 4.1, it was revealed that:

1. During the interim period 20.00 per cent of the youth drove with the mother from 0-10 per cent of the time, while 32.22 per cent of the youth specified they drove with the father.
2. The data showed that 13.89 per cent of the youth drove with the mother 41-50 per cent during the interim period, and 12.22 per cent responded they drove with the father.
3. In the driving range of 71-80 per cent, 15.56 per cent of the youth indicated they drove with the mother, and 3.33 per cent indicated they drove with the father.
4. For those youth driving almost totally with the mother or father, it was denoted that in the limit of 91-100 per cent of the driving, 16.67 per cent drove with the

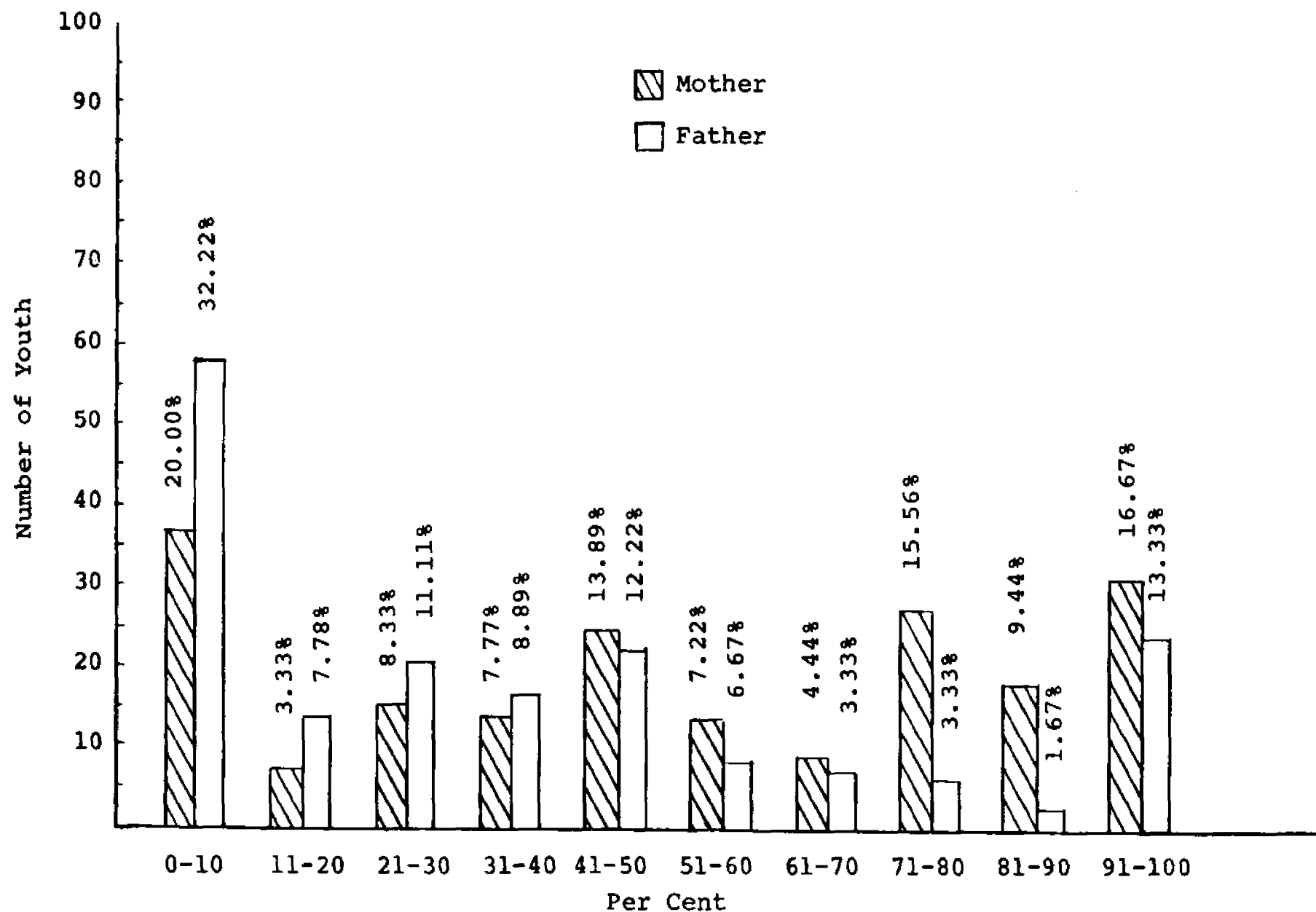


Figure 4.1.--Distribution of per cent of driving for youth done with mother versus father.

mother and 13.33 per cent with the father.

In Figure 4.2 data regarding the amount of driving with a guardian during the interim period are depicted. These data indicated:

1. Ninety-eight and thirty-three hundreds per cent of the youth did not drive with a female guardian during the interim period, and 99.44 per cent did not drive with a male guardian.
2. Fifty-six hundreds per cent of the sample revealed that they drove with a male guardian 25 per cent of the time, and .56 per cent of the youth indicated they drove 75 per cent of the time with a female guardian during the interim period.
3. Of the youth who drove with a guardian during this period, 1.11 per cent designated they drove 90 per cent with a female guardian.

Figure 4.3 pertaining to the amount of driving done with an adult other than a parent or guardian indicated:

1. Ninety-seven and twenty-two hundreds per cent of the youth did not drive with any adults other than parents or guardians.
2. Less than 1 per cent (.56) did 20 per cent of their driving with an adult.

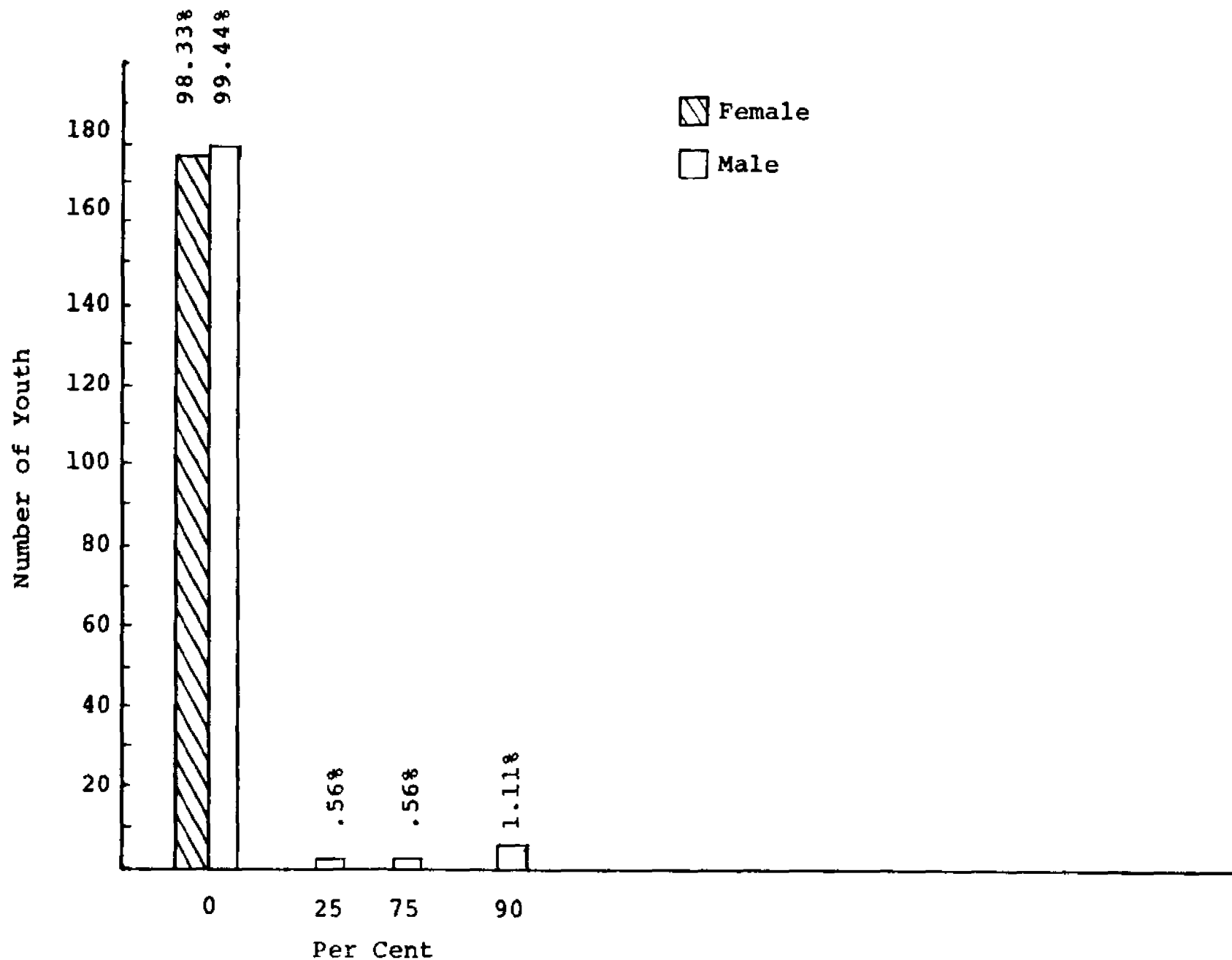


Figure 4.2.--Distribution of per cent of driving for youth done with female guardian versus male guardian.

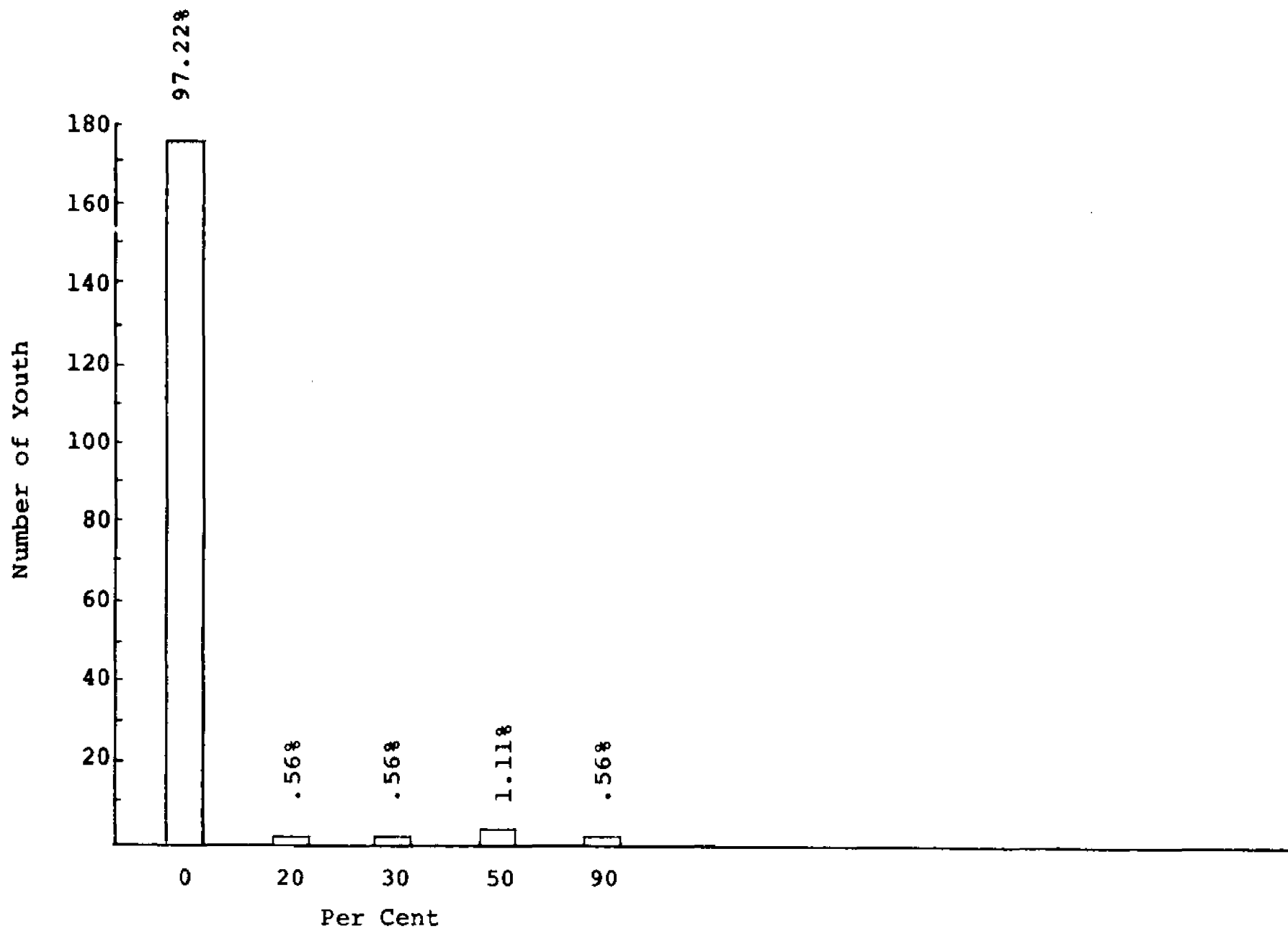


Figure 4.3.--Distribution of driving for youth done with other adults.

3. For those youth who drove 30 per cent of the time during the interim with an adult, .56 per cent responded.
4. Of the youth who drove 50 per cent with an adult, 1.11 per cent of the sample answered.
5. Less than 1 per cent (.56) denoted they drove with an adult 90 per cent of the time during the interim period.

Presented in Table 4.4 are the data relative to opinions of the youth as to why they drove with one parent more than the other. The data indicated:

1. Thirty per cent of the youth were of the opinion that the mother was available more often.
2. Six and sixty-seven hundreds per cent thought their mother was too nervous to let them drive during this time.
3. Six and eleven hundreds per cent indicated their mothers did not drive.
4. Ten per cent of the sample stated their fathers were always working.
5. Five and fifty-six hundreds per cent of the youth indicated they thought their father was more interested.

TABLE 4.4.--Opinion of Youth as to Why They Drove with one Parent More than Another.

Opinion	Number of Youth From Sample*	Per cent of Sample*
Mother Available More	54	30.00
Mother Easier to Drive With	7	3.89
Mother Too Nervous	12	6.67
Mother Does Not Drive	11	6.11
Father Always Working	18	10.00
Father More Interested	10	5.56
Father Available More	9	5.00
Father Does Not Like It	4	2.22
Other	10	5.56
Total	135	75.01

*Sample of 180.

Descriptive Analysis of Driving Experience

The emphasis of this section is on the driving experience the youth obtained during the thirty-day interim period and the behind-the-wheel experience the youth acquired while in driver education.

Freeways

In this section are contained the data concerning freeway driving experience. Presented are (1) percentage

of youth who drove on a freeway; (2) number of occurrences; (3) estimate of total time; (4) driving on freeway via an entrance ramp; (5) leaving the freeway via an exit ramp; (6) freeway driving while the weather was rainy; (7) freeway driving while the weather was foggy; (8) driving on a freeway while it was dark; (9) freeway driving at the maximum posted speed limit; (10) per cent of youth who preferred having a parent, guardian or adult in the car; (11) categories where youth obtained assistance; (12) categories where youth had problems; (13) continuous freeway driving without a break; and (14) number of youth who thought the instruction in driver education was adequate. These data are presented in Tables 4.5 through 4.11 and Figures 4.4 through 4.12.

Presented in Table 4.5 are the data relative to the percentage of youth who drove on freeways during the interim period and during driver education. The data secured from the sample indicated:

1. During the interim period, 31.67 per cent of the youth did not drive on a freeway. Of these individuals, 1.67 per cent did not possess a validated driver education certificate or a temporary instruction permit. Of the remaining 30 per cent of the youth who did not drive on this type of roadway during the thirty-day period who were licensed, they specified that the reason they did not was because their parents saw no need.

TABLE 4.5.--Youth Freeway Driving.

Response	Number of Youth From Sample For Interim Period	Per cent of Sample*	Number of Youth From Sample For Driver Education	Per cent of Sample*
Lacked Proper Permit	3	1.67		
Drove On A Freeway	123	68.23	178	98.89
Did Not Drive On A Freeway	54	30.00	2	1.11

*Sample of 180.

2. From those interviewed, the data indicated that 1.11 per cent of them did not drive on a freeway while in driver education.
3. The 1.11 per cent of the youth who responded negatively when asked if they drove on a freeway while in driver education disclosed that the teacher would not let them.

In Figure 4.4 are presented data concerning the number of times that youth drove on freeways. The data revealed:

1. For youth driving during the thirty-day interim period, 55.55 per cent drove from 1-5 times.

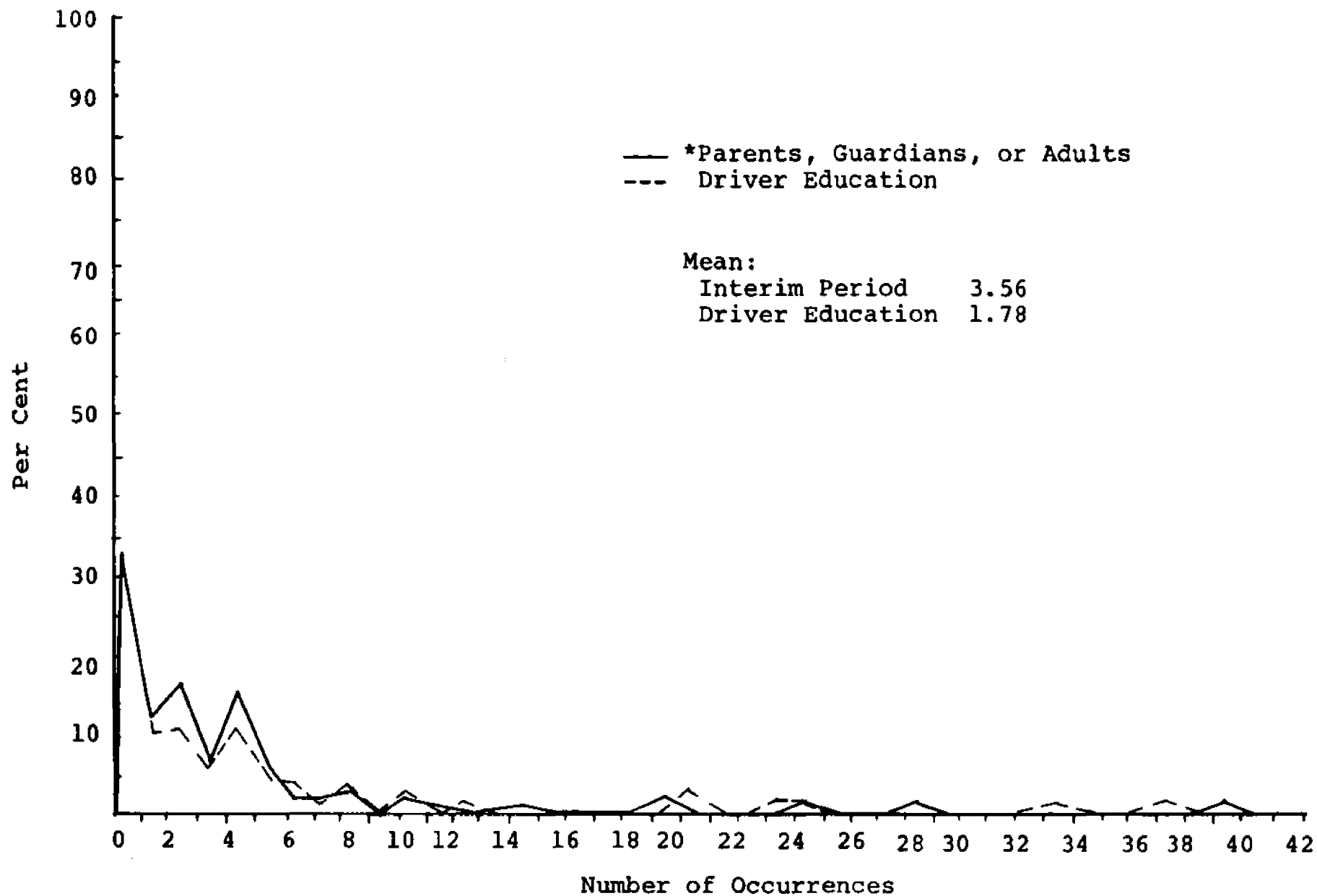


Figure 4.4.--Total freeway driving occurrences for youth with parents* as compared to driver education.

2. The range from 6-10 occurrences had 6.11 per cent of the youth, and above 10 occurrences had 6.67 per cent.
3. For the range of driving occurrences 1-5 during driver education, 97.22 per cent were within this limit, and for 6-10 occurrences 1.67 per cent.
4. The mean for occurrences during the interim period was 3.56, and the mean for this during driver education was 1.78.*

The data relative to the estimate of total time, as measured in hours, are presented in Figure 4.5. The data secured indicated:

1. For the interim period, 51.11 per cent of the youth revealed they drove on a freeway for less than an hour.
2. One and eleven hundredths per cent of the sample estimated 1-2 hours driving in this period.**
3. For 2-3 hours total driving time in the interim period, 8.34 per cent of the youth logged this much driving time. ~

*The reader should be cautioned that the means may be skewed because of some high occurrences. This may occur throughout the study.

**Estimate of time was plotted using continuous limits. For example, in the limit of 1-2 hours, any youth who drove more than one hour and up to 2 hours would be included. This method was employed throughout the study.

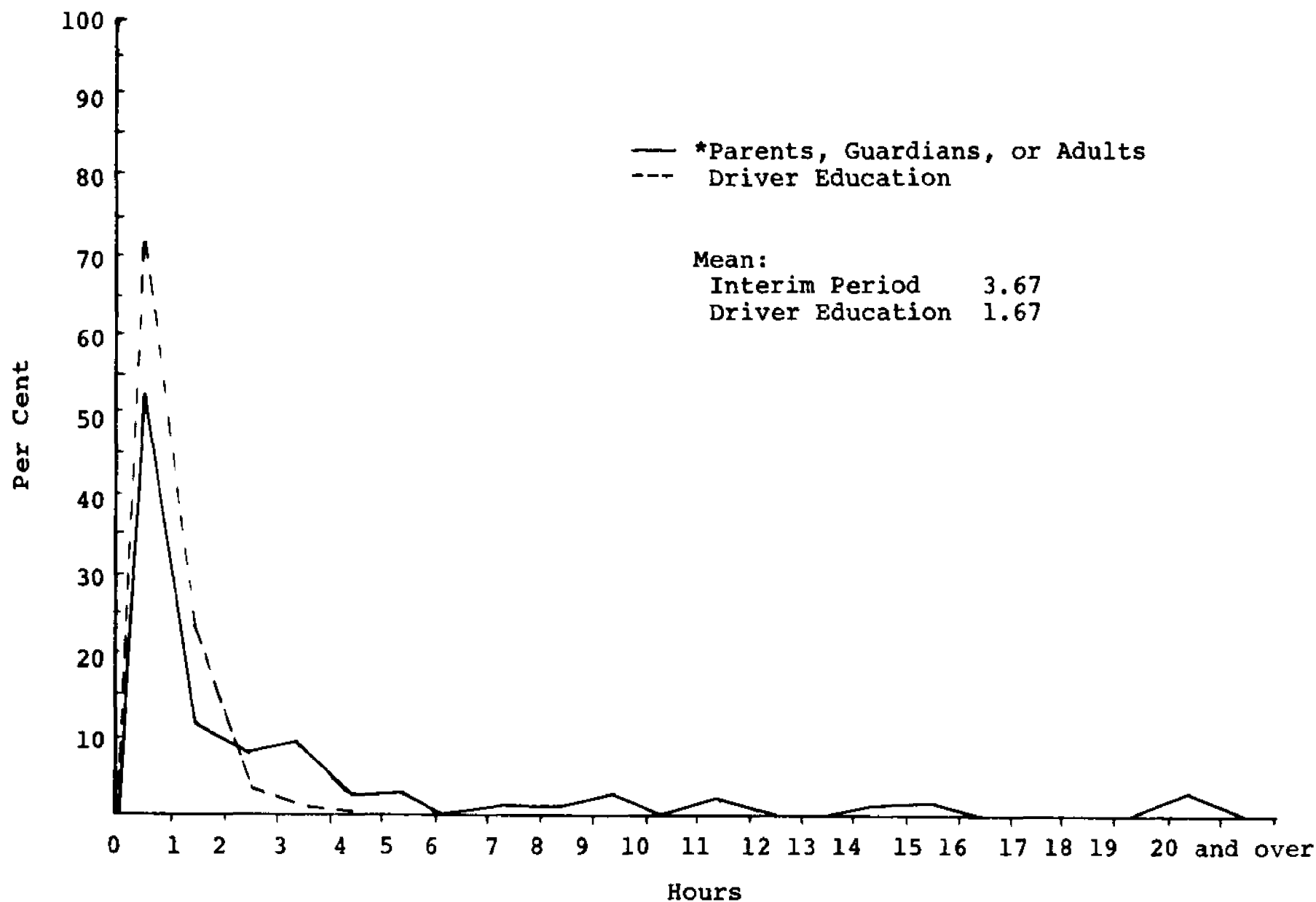


Figure 4.5.--Estimate of total time driving on a freeway for youth with parents* as compared to driver education.

4. The data indicated that 13.89 per cent of the youth drove for more than 3 hours during the thirty-day interim period.
5. In the estimate of total time driving on a freeway in driver education, 70.45 per cent drove from 0-1 hour.
6. Twenty-three and thirty-three hundreds per cent of the sample drove during driver education 1-2 hours.
7. Of those youth interviewed, 3.89 per cent reported they drove while in driver education on freeways 2-3 hours.
8. Two and twenty-three hundreds per cent of the interviewees drove in driver education on freeways above 3 hours.
9. The mean for the estimate of total time for the interim period was 3.67 hours, and for driver education it was 1.67 hours.

Presented in Figure 4.6 are the data relative to the number of occurrences that a youth drove on a freeway via an entrance ramp during the thirty-day period and during driver education. The data denoted:

1. Of those youth interviewed, 32.22 per cent reported they did not drive onto a freeway via an entrance ramp during the interim period.

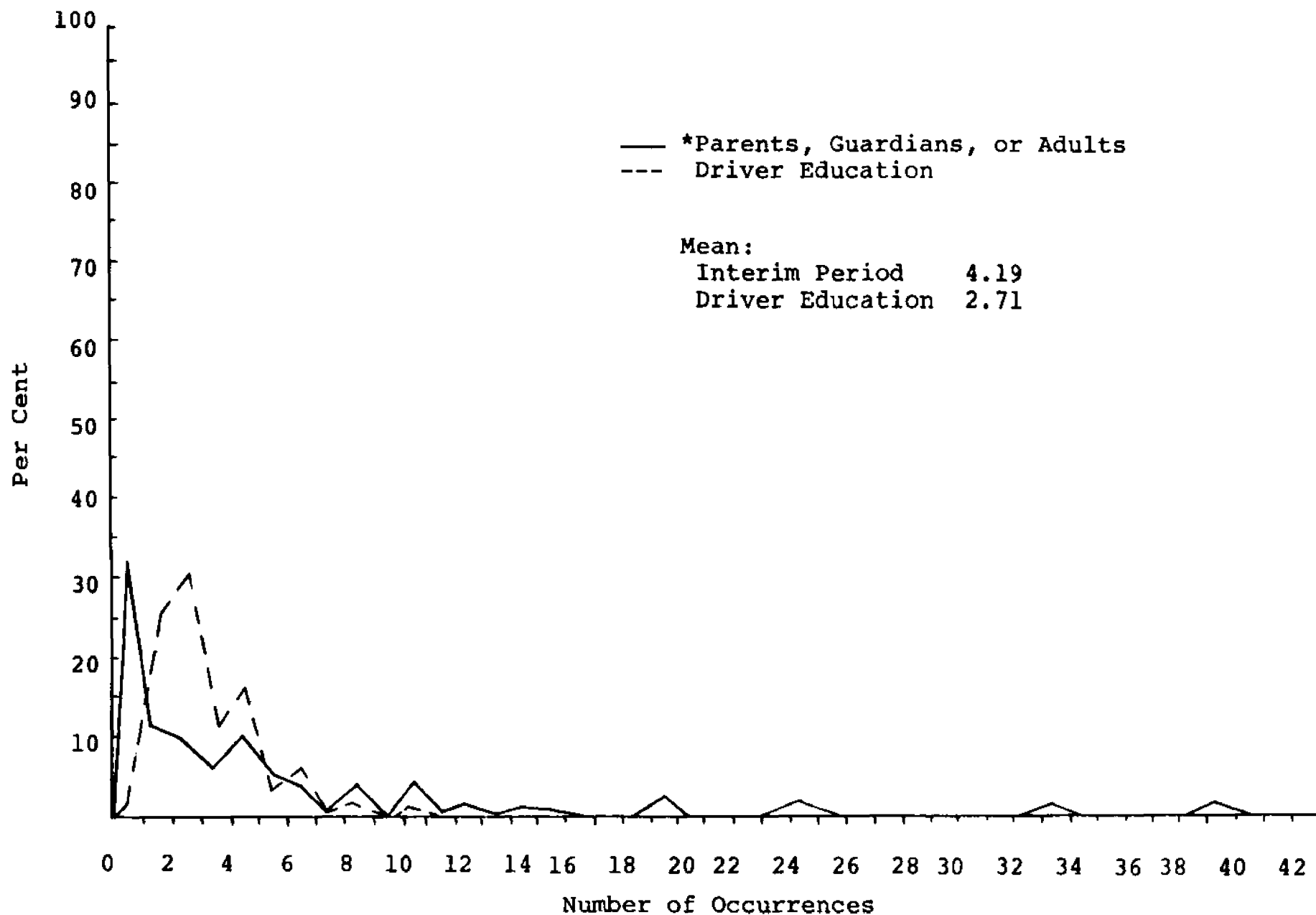


Figure 4.6.--Freeway driving via entrance ramp for youth with parents* as compared to driver education.

2. For youth during the interim period, 44.45 per cent drove onto a freeway 1-5 times.
3. For 6-10 occurrences driving on a freeway via an entrance ramp, 15 per cent of the youth responded.
4. Eight and thirty-three hundreds per cent of the youth were encompassed in 10 or more occurrences for driving on a freeway via an entrance ramp during the interim period.
5. During driver education for the experience of entering a freeway via an entrance ramp, 2.78 per cent of the youth lacked this experience.
6. The driver education experience for this situation in the 1-5 occurrence limit was 87.78.
7. Nine and forty-four hundreds per cent of the youth indicated that while in driver education they drove onto a freeway 6-10 times.
8. The mean for driving occurrences on a freeway via the entrance ramp during the thirty-day interim period was 4.19, and 2.71 during driver education.

Represented in Figure 4.7 are the data pertaining to the total occurrences that youth left a freeway via an exit ramp during the interim period and in driver education. These data revealed:

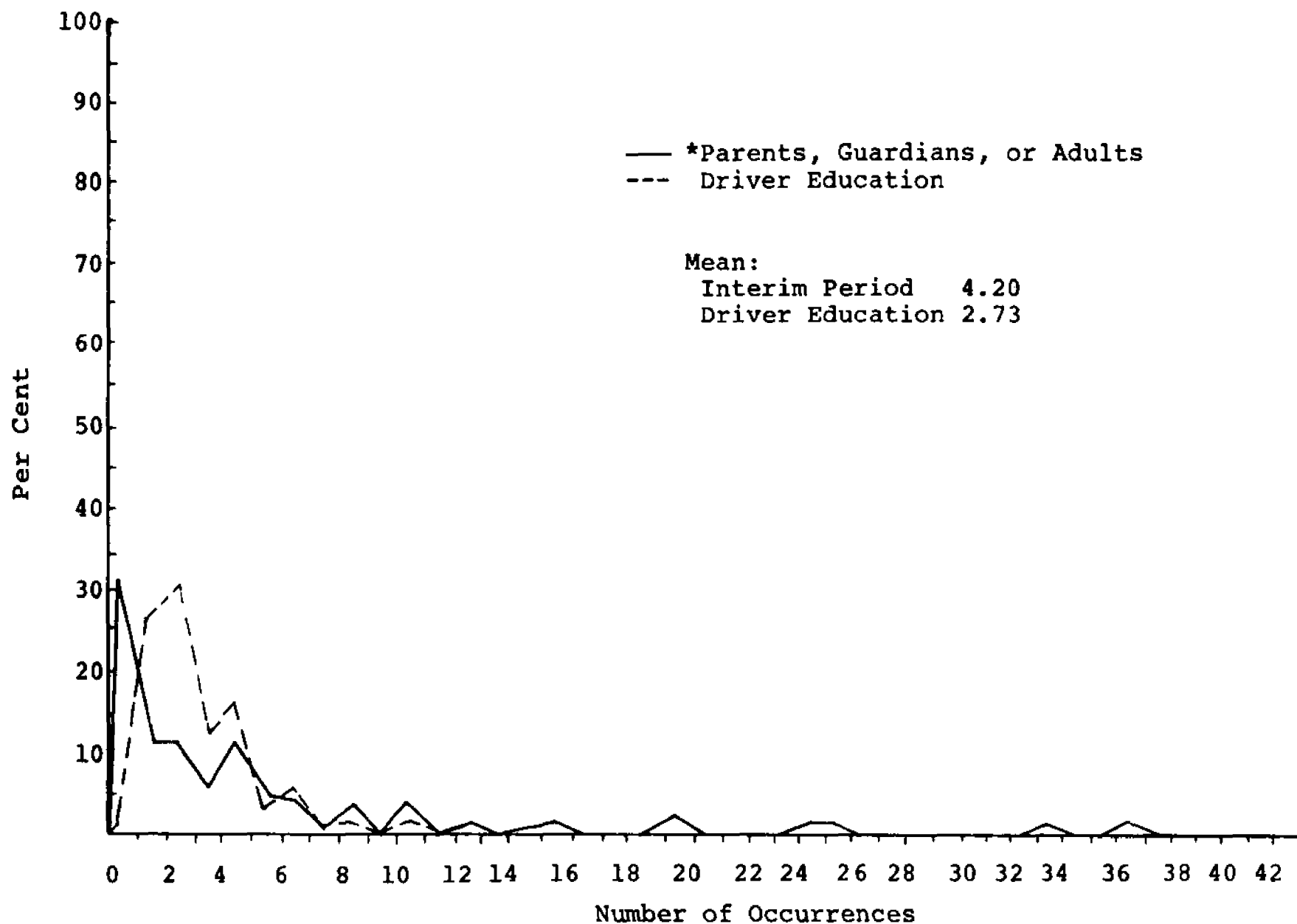


Figure 4.7.--Freeway driving via exit ramps for youth with parents* compared to driver education.

1. The data showed that 32.22 per cent of the interviewees did not leave a freeway via an exit ramp during the interim period.
2. During the interim period 44.45 per cent of the sample left a freeway by way of an exit ramp 1-5 times.
3. In the 6-10 occurrences for the interim period, 14.44 per cent of the interviewees were involved.
4. For exiting more than 10 times, 8.89 per cent indicated they did so during the interim period.
5. During driver education 1.11 per cent of the youth did not leave a freeway via an exit ramp.
6. While in driver education, 89.45 per cent were within the limit of 1-5 occurrences.
7. For the range of 6-10 occurrences in driver education, 9.44 per cent of the youth responded.
8. The mean for freeway driving occurrences via exit ramps during the interim period was 4.20; 2.73 was the mean of driving occurrences during driver education.

Presented in Figure 4.8 are the data relative to the per cent of youth who drove on a freeway when rainy weather conditions existed. The data secured indicated:

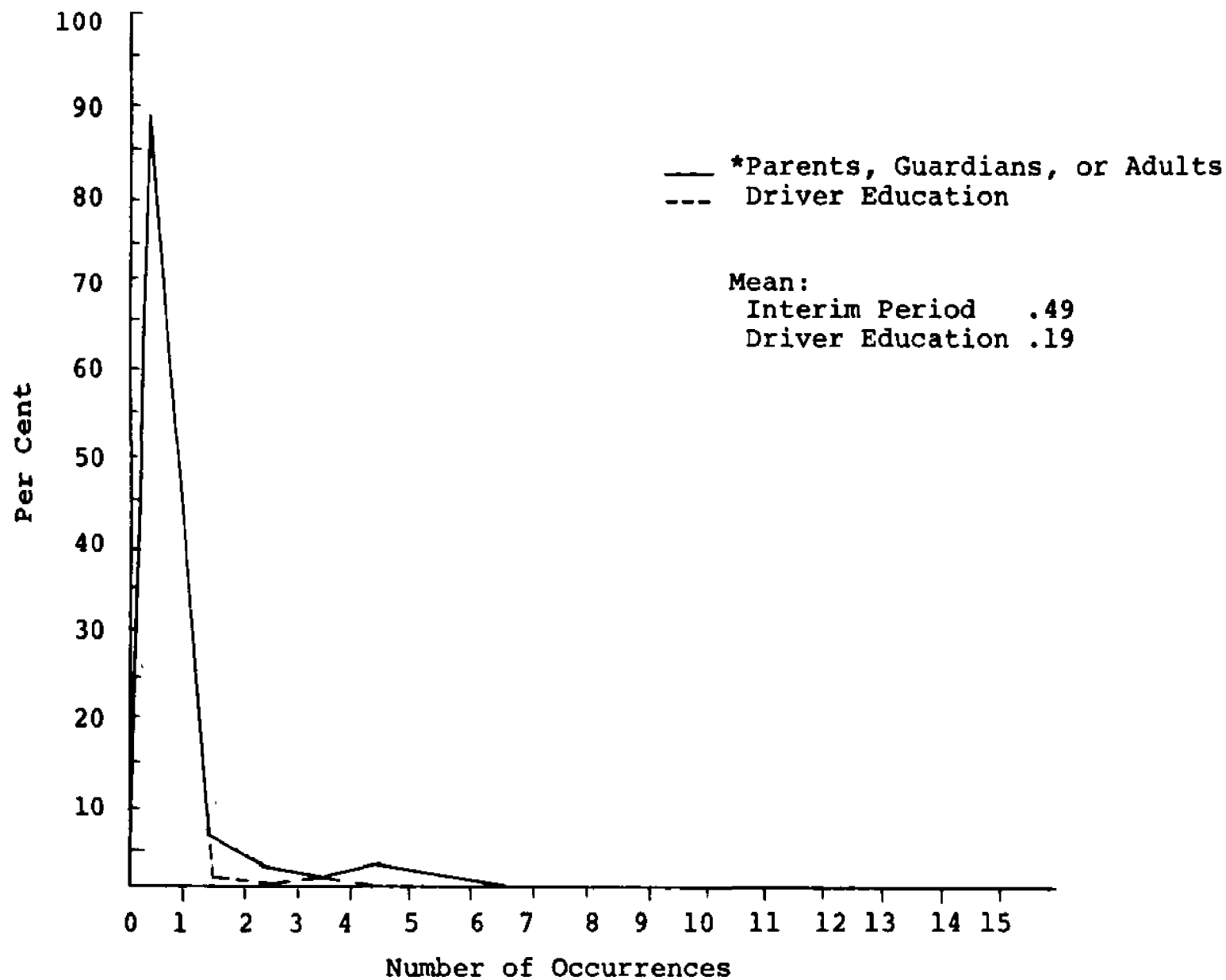


Figure 4.8.--Freeway driving occurrences while raining for youth with parents* as compared to driver education.

1. During the interim period 72.22 per cent of the sample did not drive on a freeway when rain was present.
2. Twenty and seventy-eight hundreds per cent of the youth were encompassed in 1-2 driving occurrences when the weather was rainy.
3. Only 5.00 per cent of the sample drove on freeways during this time more than 2 times when it was raining.
4. The data showed that 83.33 per cent of the sample never drove on this type of roadway when rainy weather conditions existed while in driver education.
5. In the number of occurrences during driver education from 1-2, 16.11 per cent of the youth drove this amount.
6. The means for driving occurrences on freeways while the weather was rainy during the interim period was .49, and .19 during driver education.

In Figure 4.9 are presented the data concerning the number of driving occurrences the youth had on freeways with foggy weather conditions existing. These data indicated:

1. Ninety-one and sixty-seven hundreds per cent of the youth did not drive in fog during the interim period on this type of roadway.

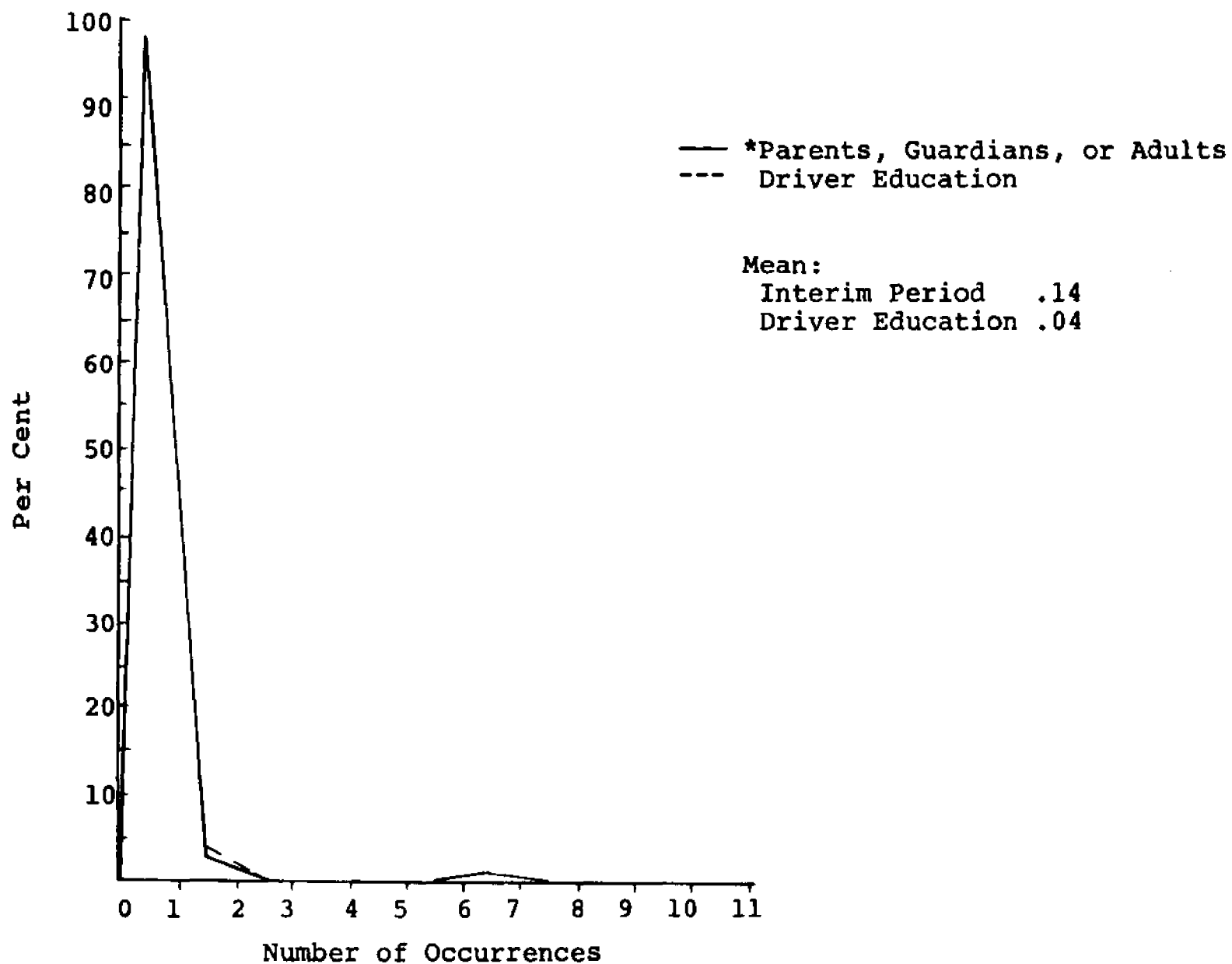


Figure 4.9.--Freeway driving occurrences while foggy for youth with parents* as compared to driver education.

2. During driver education 95.56 per cent of the youth did not drive on freeways when foggy weather conditions existed.
3. The means for driving occurrences on this type of roadway while fog existed was .14 for the interim period and .04 for driver education.

Figure 4.10 depicts the data relative to number of times youth drove on freeways when darkness was present during the interim period and during driver education. The data obtained indicated:

1. During the interim period 69.44 per cent of the sample did not drive on a freeway with this condition present.
2. Twenty-seven and seventy-eight per cent of the individuals were within the 1-5 limit during the interim period.
3. No youth drove on a freeway more than 10 times during this period when it was dark.
4. During driver education .56 per cent of the sample responded that they drove on a freeway while it was dark.
5. The means for driving occurrences on freeways when darkness existed was .72 for the thirty-day period and .02 for driver education.

The data from the sample in Table 4.6 concerns the reasons youth were not permitted to drive the maximum speed

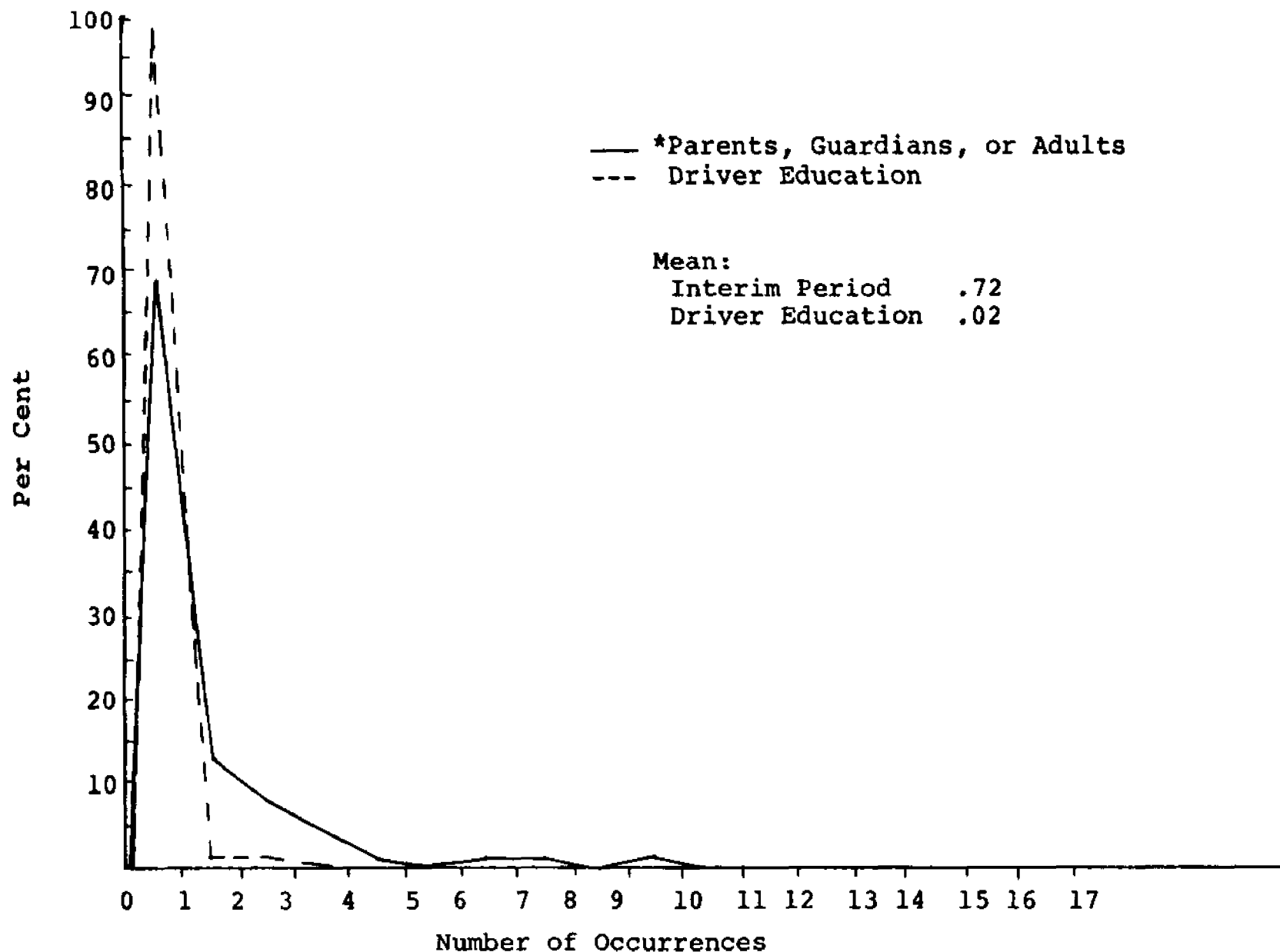


Figure 4.10.--Freeway driving occurrences while dark for youth with parents* as compared to driver education.

TABLE 4.6.--Reasons Why Youth were not Allowed to Drive Maximum Speed Limit on a Freeway.

Thirty-Day Interim Period Responses	Number of Youth From Sample*	Per cent of Sample*	Driver Education Responses	Number of Youth From Sample*	Per cent of Sample*
Told to drive slower and no reason given why	12	6.67	Teacher not sure of students	19	10.56
Only at night had to drive slower	3	1.67	Teacher wanted students to drive slower only at night	1	.56
			Drive slower to be safe	3	1.67
Total	15	8.34		23	12.79

limit in either the interim period or in driver education.

The data revealed:

1. During the interim period 91.67 per cent of the youth were permitted to drive the maximum speed limit on freeways.
2. Six and sixty-seven hundreds per cent of the youth were not able to give a reason why they were not permitted to drive the maximum posted speed limit during this time.
3. At night, 1.67 per cent of the youth had to drive slower during the interim period.
4. Of those youth interviewed, 87.21 per cent replied they were allowed to drive the maximum speed limit during driver education.
5. Ten and fifty-six hundreds per cent responded that the reason they could not do this during driver education was because the teacher was not sure of the students.
6. During driver education 1.67 per cent of the youth were told by the teacher to drive slower to be safe.

Presented in Figure 4.11 are the data relative to the per cent of youth who preferred having a parent, guardian or licensed adult in the car with them during the thirty-day interim period while driving on a freeway. These data indicated:

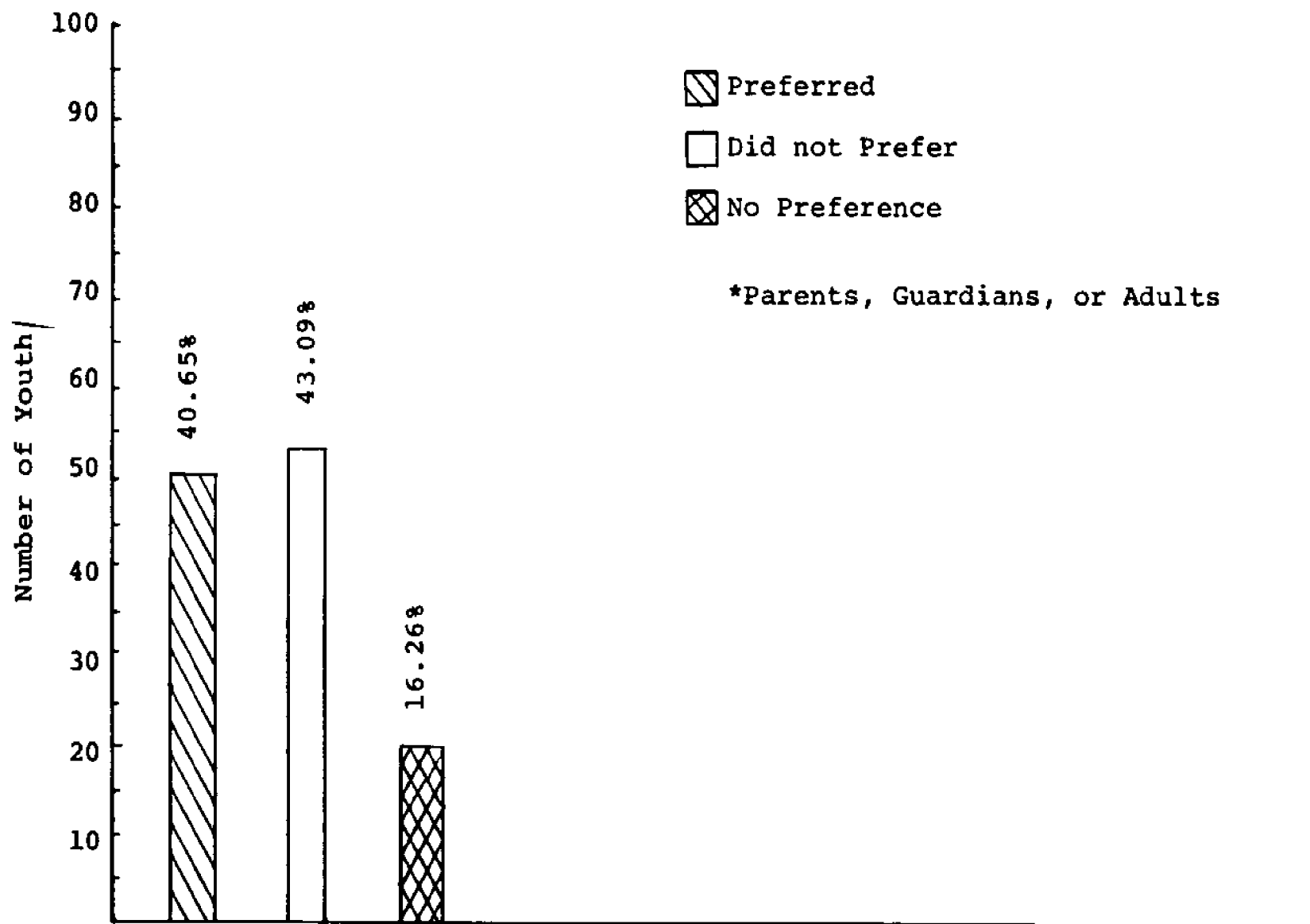


Figure 4.11.--Feelings of youth about having parents* in the car during interim period while driving on freeways.

1. Forty and sixty-five hundreds per cent of the youth stated they preferred having one of these individuals in the car with them.
2. For this same period, 43.09 per cent of the sample responded negatively.
3. Sixteen and twenty-six hundreds per cent of the youth designated no preference.

In Table 4.7 are presented the data concerning the categories where youth obtained assistance on freeway driving during the interim period. The data indicated:

1. A majority, 54.45 per cent, of the youth obtained some assistance from the adult individual with whom they were driving on a freeway.
2. Thirty and fifty-six hundreds per cent responded that the assistance was general in nature.
3. For lane changing, 6.11 per cent of the youth indicated that they received help in doing this task.
4. Five and fifty-six hundreds per cent of the youth revealed that they needed assistance from the adult in the car while passing another vehicle.

Presented in Tables 4.8 and 4.9 are the data relative to the per cent of youth who experienced difficulty while driving on freeways during the interim period and during driver education. These data showed:

TABLE 4.7.--Categories of Experiences Where Youth Obtained Assistance on Freeway Driving During Interim Period.

Categories	Number of Youth From Sample*	Per cent of Sample*
Lane Changing	11	6.11
Merging	8	4.44
Using Exit Ramp	4	2.22
Passing	10	5.56
Distance Judgement	4	2.22
Too Close to Right Side of Road	3	1.67
Correct Use of Lights at Night	3	1.67
General Assistance	55	30.56
Total	98	54.45

*Sample of 180.

TABLE 4.8.--Driving Experiences Where Youth Had Problems While Driving on Freeways During Interim Period.

Thirty-Day Interim Period Problem Categories	Number of Youth From Sample*	Per cent of Sample*
Lane Changing	4	2.22
Merging	4	2.22
Exiting	5	2.78
Maintaining Proper Speed	3	1.67
Passing	7	3.89
Driving Too Far to Right	2	1.11
Maintaining Proper Lane	3	1.67
Other	3	1.67
Total	31	17.23

*Sample of 180.

TABLE 4.9.--Driving Experiences Where Youth Had Problems While Driving on Freeways During Driver Education.

Driver Education Problem Categories	Number of Youth From Sample*	Per cent of Sample*
Merging	13	7.22
Entering and Exiting	8	4.44
Maintaining Proper Speed	4	2.22
Passing	16	8.89
Lane Positioning	10	5.56
Other	11	6.11
Total	62	34.44

*Sample of 180.

1. Of those youth interviewed, 51.11 per cent declared that they had no problem while driving on this type of road during the interim period.
2. For the 17.23 per cent of youth that had problems, 2.78 per cent had difficulty using the exit ramps and 3.89 per cent experienced problems passing other vehicles during this period.
3. During driver education 64.44 per cent indicated they had not experienced any difficulty driving on a freeway.
4. Of those youth who had difficulty during driver education, 8.89 per cent had problems passing other vehicles.
5. Seven and twenty-two hundreds per cent of the youth had problems merging with freeway traffic while in driver education.
6. For those youth who had difficulty, 5.56 per cent experienced problems in maintaining proper lane position.

The amount of time a youth drove continuously on a freeway without a break is presented in Figure 4.12. The data are representative of the thirty-day interim period and for driver education. The data revealed:

1. For youth driving on a freeway during the interim period, 72.78 per cent never drove for more than an hour.

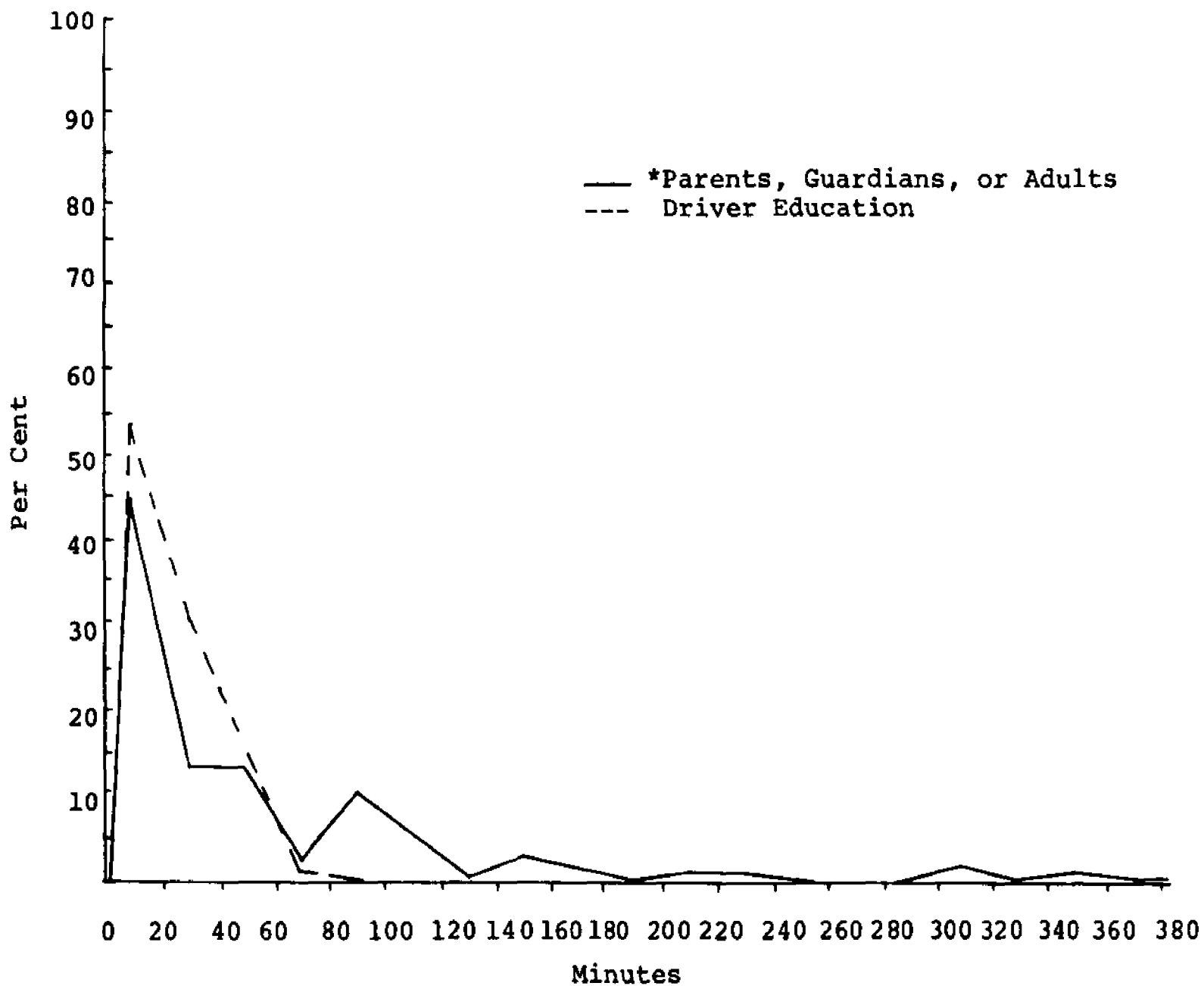


Figure 4.12.--Continuous freeway driving for youth with parents* as compared to driver education.

2. Sixteen and seventy-eight hundreds per cent of the youth drove from 1-2 hours continuously during this time.
3. The longest that any youth drove, .56 per cent, was for 6 hours.
4. The data related to the same experience in driver education showed that 99.44 per cent of the youth never drove continuously for more than an hour.

In Tables 4.10 and 4.11 are the data concerning the opinion of youth as to whether driver education preparation on freeways was adequate or not. The data indicated:

1. Of those youth interviewed, 65.56 per cent thought the instruction was adequate.
2. For the youth who responded that driver education was adequate, 27.78 per cent believed the amount of time spent on freeway driving was sufficient.
3. Twelve and seventy-eight hundreds per cent of the youth were of the opinion the instruction by the teacher was good.
4. Of the youth indicating the driver education instruction was adequate, 11.67 per cent thought this to be true because freeway driving was not a complicated task.
5. For the 33.34 per cent of the youth that were of the opinion that the instruction was not

TABLE 4.10.--Response of Youth as to Why Driver Education Preparation on Freeways was Adequate.

Response	Adequate Preparation	
	Number of Youth From Sample*	Per cent of Sample*
Long Enough Time	50	27.78
Instruction Good	23	12.78
Enough Experience	10	5.56
Not a Complicated Task	21	11.67
No Reason	6	3.33
Other	8	4.44
Total	118	65.56

*Sample of 180.

TABLE 4.11.--Response of Youth as to Why Driver Education was not Adequate for Freeways.

Response	Not Adequate Preparation	
	Number of Youth From Sample*	Per cent of Sample*
Not Enough Time	52	28.89
Need Night Driving	3	1.67
Other	5	2.78
Total	60	33.34

*Sample of 180.

adequate, 28.89 per cent thought the time spent on freeways was too short.

State Highways

This section includes the data concerning state highway driving experience. Presented are (1) the per cent of youth who drove on a state highway; (2) number of occurrences; (3) estimate of total time; (4) driving on this type of roadway when the weather was rainy; (5) state highway driving during foggy weather; (6) driving on a state highway while it was dark; (7) state highway driving at the maximum posted speed limit; (8) per cent of youth who preferred having a parent, guardian or adult in the car; (9) categories where youth obtained assistance; (10) categories where youth had problems; and (11) number of youth who thought the instruction in driver education was adequate. The data are presented in Tables 4.12 through 4.19 and Figures 4.13 through 4.18.

Presented in Table 4.12 are the data relative to the per cent of youth who drove on state highways during the interim period and during driver education. The data obtained from the sample indicated:

1. For the thirty-day interim period, 18.89 per cent of the youth did not drive on this classification of roadway, and 1.67 per cent did not possess a valid permit. Of the remaining 17.22 per cent of the youth who did not drive

TABLE 4.12.--State Highway Driving for Youth.

Response	Number of Youth From Sample for Interim Period	Per cent of Sample*	Number of Youth From Sample for Driver Education	Per cent of Sample*
Lacked Proper Permit	3	1.67		
Drove On a State Highway	146	81.11	145	80.56
Did Not Drive On A State Highway	31	17.22	35	19.44

*Sample of 180.

on a state highway during this period, the reason secured was that their parents saw no need to do so.

2. For driver education, 19.44 per cent did not receive driving experience on this class of road. These individuals who responded negatively reported that the driver education instructor never reached this stage.

In Figure 4.13 are presented data concerning the number of occurrences youth drove on a state highway. The data revealed:

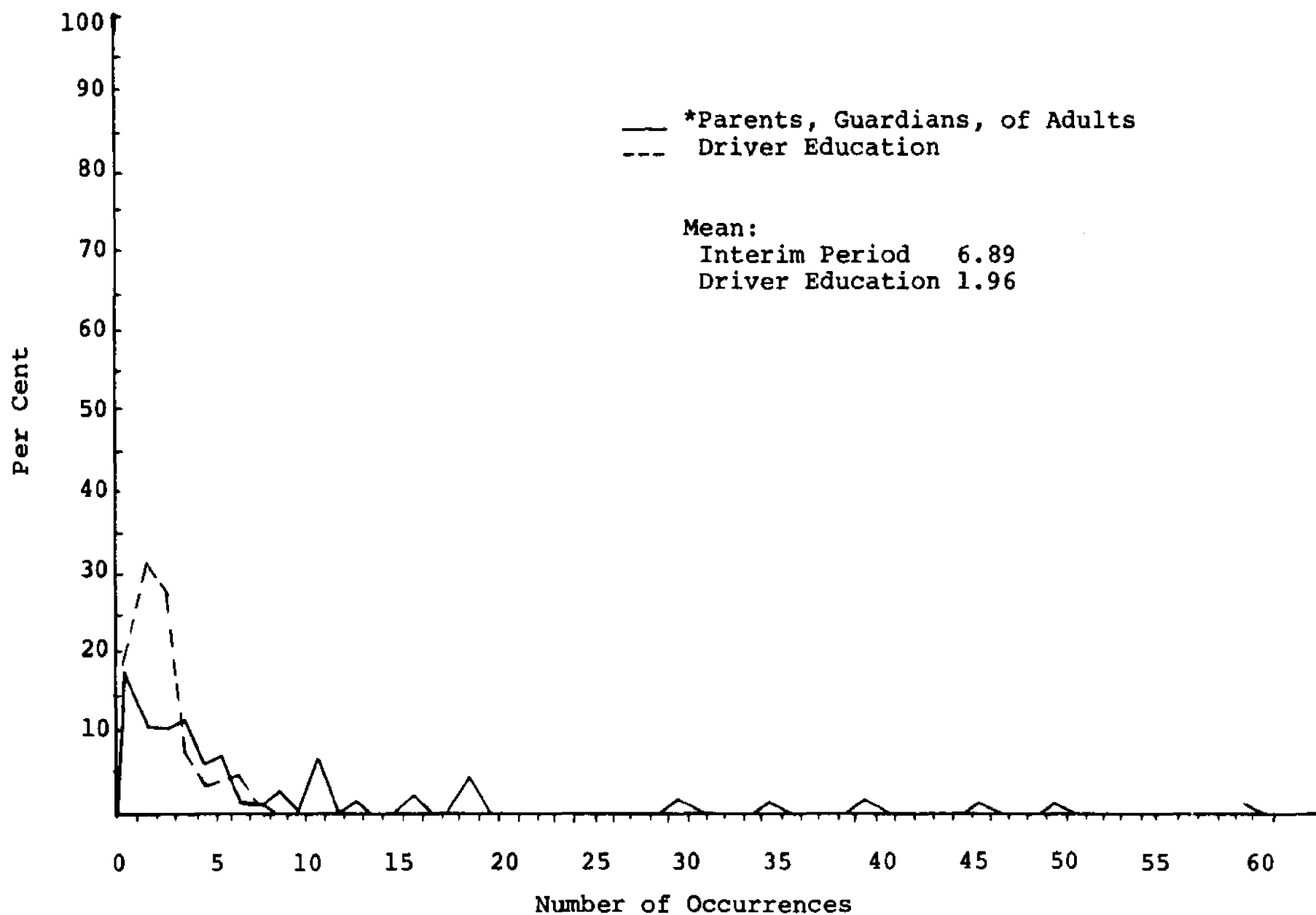


Figure 4.13.--Total state highway driving occurrences for youth with parents* as compared to driver education.

1. For youth driving during the thirty-day interim period, 50.00 per cent drove from 1-5 times.
2. The range from 6-10 occurrences had 15.04 per cent, and the rest distributed along the continuum with a high of 60 occurrences with .56 per cent of the youth.
3. For the range of driving occurrences 1-5 during driver education, 72.78 per cent were within this limit.
4. The data indicated that 6.11 per cent of the youth were in the limit of 6-10.
5. Less than 1 per cent (.56) of the individuals were in the high of 20 driving occurrences on state highways while in driver education.
6. The means for total driving occurrences during the interim period and during driver education were 6.89 and 1.96 respectively for state highways.

The data relative to the estimate of total time, as measured in hours, are presented in Figure 4.14. The data secured indicated:

1. For the interim period, 51.11 per cent denoted that they drove on a state highway for less than an hour.
2. Sixty-eight and eighty-nine hundredths per cent of the sample estimated 1-2 hours driving in this period.

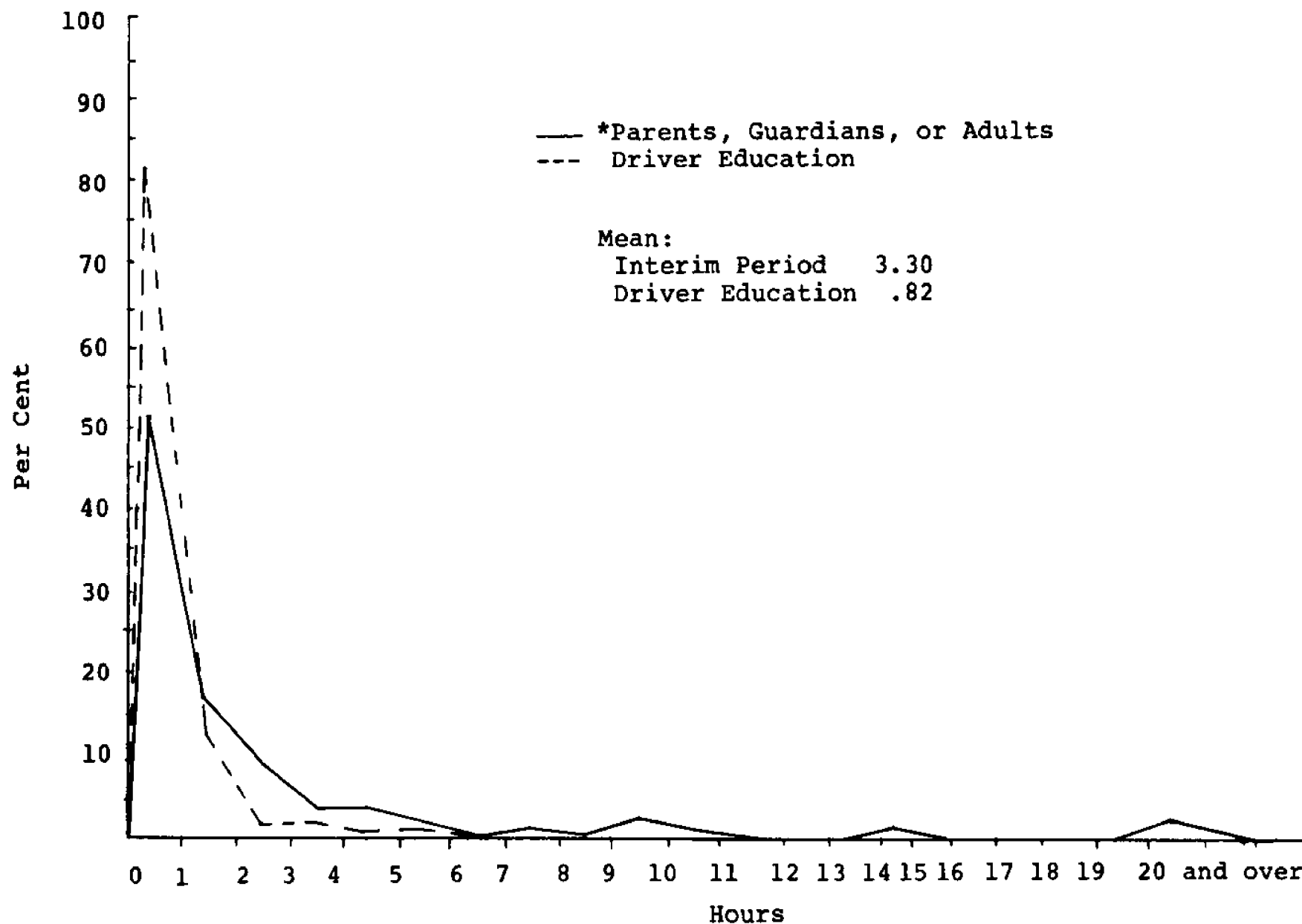


Figure 4.14.--Estimate of total time driving on state highways for youth with parents* as compared to driver education.

3. For 2-3 hours total driving time in the interim period, 9.33 per cent of the youth accumulated this much time.
4. The data revealed .56 per cent of the youth drove for more than 3 hours during the thirty-day interim period.
5. In the estimate of total time driving on a state highway in driver education, 80.56 per cent drove from 0-1 hour.
6. Thirteen and eighty-eight hundreds per cent drove during driver education 1-2 hours.
7. Of those youth interviewed, 2.23 per cent reported they drove on state highways 2-3 hours.
8. Three and thirty-three hundreds per cent of the interviewees drove in driver education on state highways above 3 hours.
9. The mean for the estimate of total time for the interim period was 3.30 hours. The mean for driver education was .82 hours.

Represented in Figure 4.15 are the data relative to the per cent of youth who drove on state highways when rainy weather conditions existed. These data revealed:

1. During the interim period 65.56 per cent of the youth never drove on this type of roadway while rainy weather conditions existed.

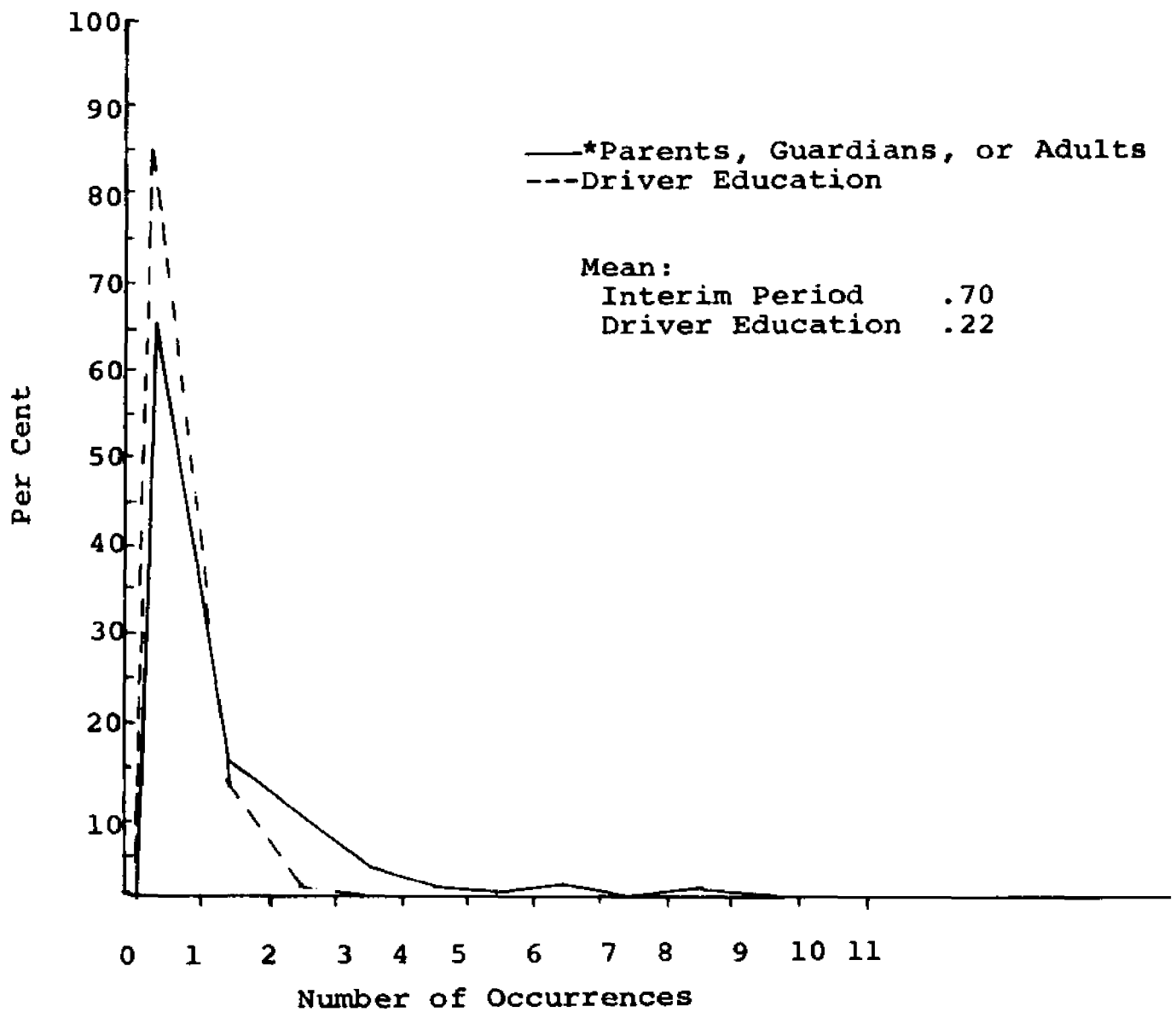


Figure 4.15.--State highway driving while raining for youth with parents* as compared to driver education.

2. Thirty-one and eleven hundreds per cent of the sample were within 1-2 driving occurrences when it was raining on state highways.
3. Only 3.23 per cent of the youth drove on this type of roadway with this condition present more than 3 times.
4. The data showed that 84.44 per cent of the sample never drove on a state highway when rainy weather conditions existed while in driver education.
5. In the number of occurrences during driver education from 1-3, 15.00 per cent of them were within this limit.
6. The means for driving occurrences on state highways when rain existed was .70 for the interim period and .22 for driver education.

Figure 4.16 depicts the data relating to the number of times youth drove on state highways when fog was present during the interim period and during driver education. The data obtained indicated:

1. During the interim period 89.44 per cent of the sample did not drive on a state highway when foggy weather conditions existed, and all of the individuals were within the limit of 4 occurrences.
2. While in driver education, 96.11 per cent of the interviewees reported that they never drove on this type of roadway.

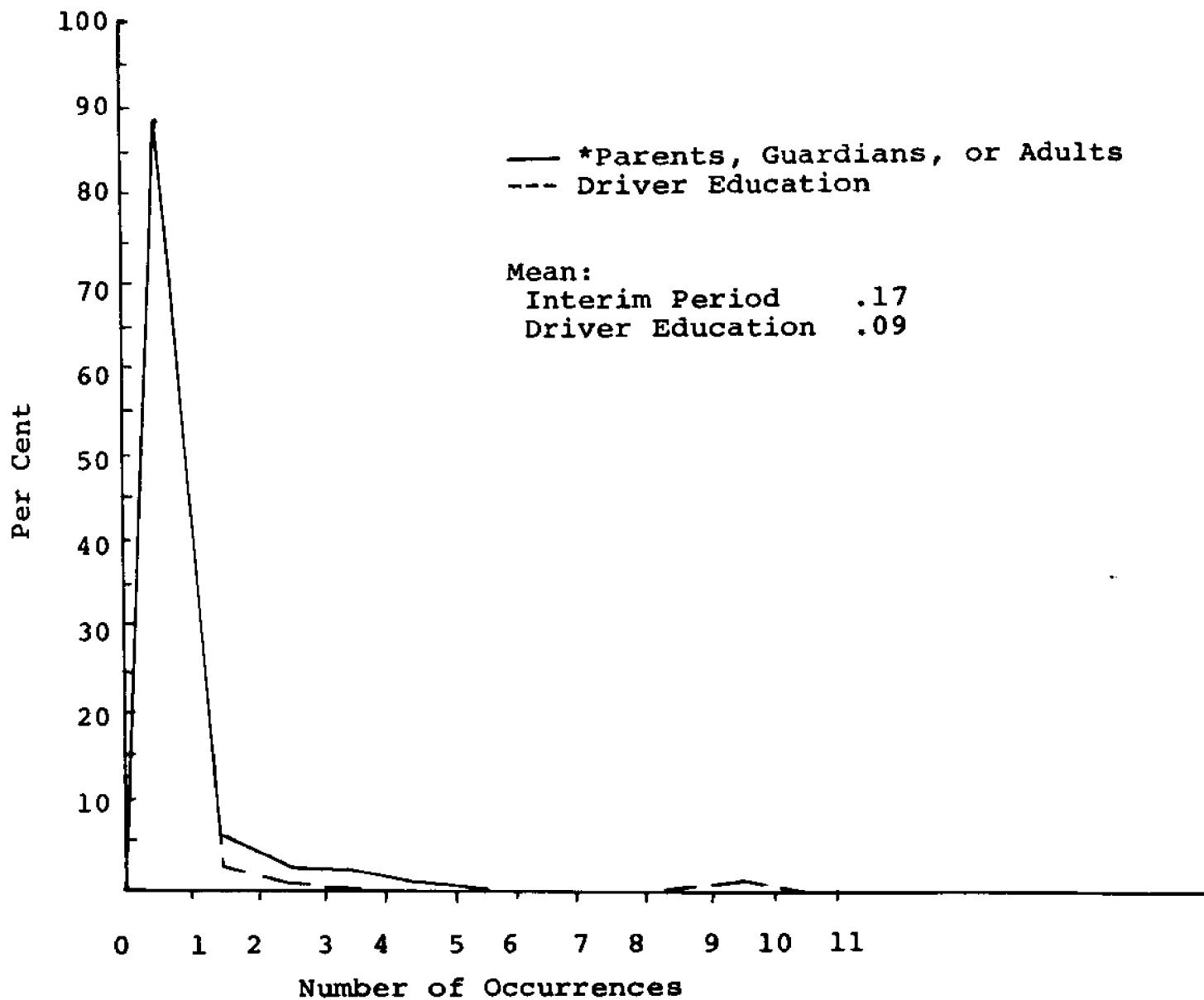


Figure 4.16.--State highway driving while foggy for youth with parents* as compared to driver education.

3. Less than 1 per cent (.56) of the sample indicated that this was done 10 times during driver education.
4. For the driving occurrences when fog existed on state highways, the means for the interim period and for driver education were .17 and .09 respectively.

In Figure 4.17 are presented the data concerning the number of driving occurrences the youth had on state highways with darkness existing. The data obtained revealed:

1. In regard to driving with darkness present during the thirty-day interim period, 52.78 per cent of the individuals lacked this experience.
2. Twenty and fifty-five hundreds per cent of the sample were in the driving range of 1-5 for this period of time.
3. The data showed that 7.22 per cent of the youth drove with darkness existing during the interim period from 5-10 occurrences.
4. One and sixty-seven hundreds per cent of the individuals reported that they drove on this type of roadway more than 10 times with darkness existing.
5. In driver education 98.89 per cent of the interviewees never experienced driving on a state highway when it was dark.

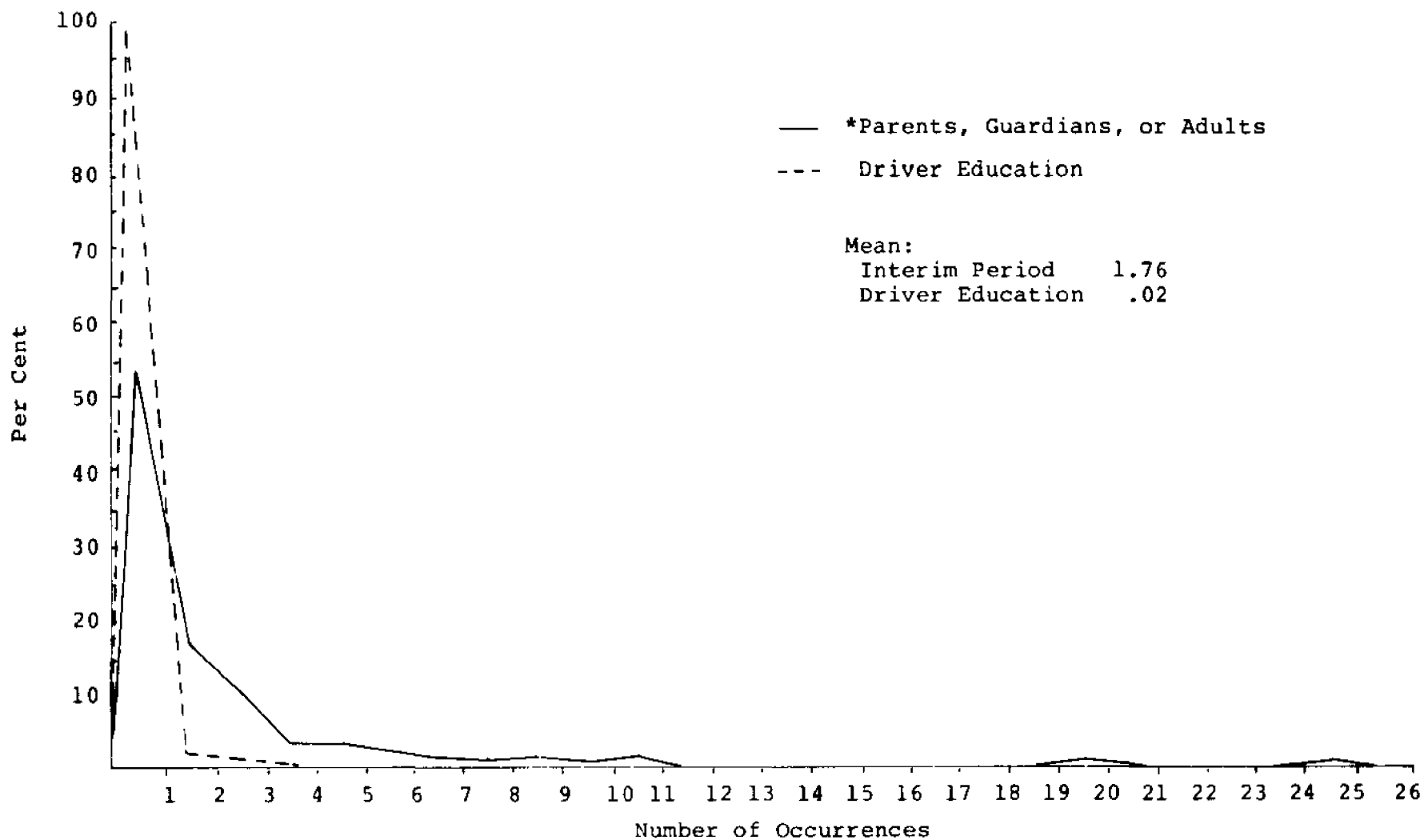


Figure 4.17.--State highway driving while dark for youth with parents* as compared to driver education.

6. Only 1.11 per cent of the sample had this experience once while in driver education.
7. The mean for driving occurrences on this type of roadway during the interim period for darkness was 1.76, and the mean for this during driver education was .02.

The data from the sample presented in Tables 4.13 and 4.14 concerns the reasons youth were not permitted to drive the maximum speed limit in either the interim period or in driver education. The data indicated:

1. During the interim period 93.83 per cent of the youth were allowed to drive the maximum speed limit while driving on state highways.
2. Three and thirty-three hundreds per cent of the youth reported that the parents were too nervous.
3. In the interim period, 1.67 per cent responded that the parents felt they should get use to driving on state highways first.
4. Of those individuals who drove on this classification of roadway while in driver education, 91.72 per cent were permitted to drive the maximum posted speed limit.
5. Two and seventy-eight hundreds per cent indicated that the teacher felt unsafe when they drove the maximum speed limit.

TABLE 4.13.--Reasons why Youth were not Allowed to Drive
Maximum Speed Limit on a State Highway
During Interim Period.

Thirty-Day Period	Number of Youth From Sample*	Per cent of Sample*
Parents were Nervous	6	3.33
Parents Felt Should Get Used to Road	3	1.67
Total	9	5.00

*Sample of 180

TABLE 4.14.--Reasons why Youth were not Allowed to Drive
Maximum Speed Limit on a State Highway
During Driver Education.

Driver Education	Number of Youth From Sample*	Per cent of Sample*
Teacher Felt Unsafe	5	2.78
5-10 MPH Under	5	2.78
Not First Time	2	1.11
Total	12	6.67

*Sample of 180.

6. During driver education 2.78 per cent stated they were told by the instructor to drive 5-10 mph under the maximum speed limit.

Presented in Figure 4.18 are the data relative to the per cent of youth who preferred having a parent, guardian or licensed adult in the car with them during the thirty-day interim period while driving on a state highway. These data revealed:

1. For the interim period 45.20 per cent of the youth replied that they preferred having a parent, guardian or licensed adult in the car when driving on this type of road.
2. For this sample period 34.25 per cent of the sample responded negatively.
3. Twenty and fifty-five hundredths per cent of the interviewees had no preference.

In Table 4.15 are presented the data concerning the categories where youth obtained assistance on state highway driving during the interim period. The data secured revealed:

1. A majority, 69.17 per cent, of the youth obtained some assistance from the adult with whom they were driving on state highways.
2. Twenty-seven and twenty-two hundredths per cent responded that the assistance was general in nature.

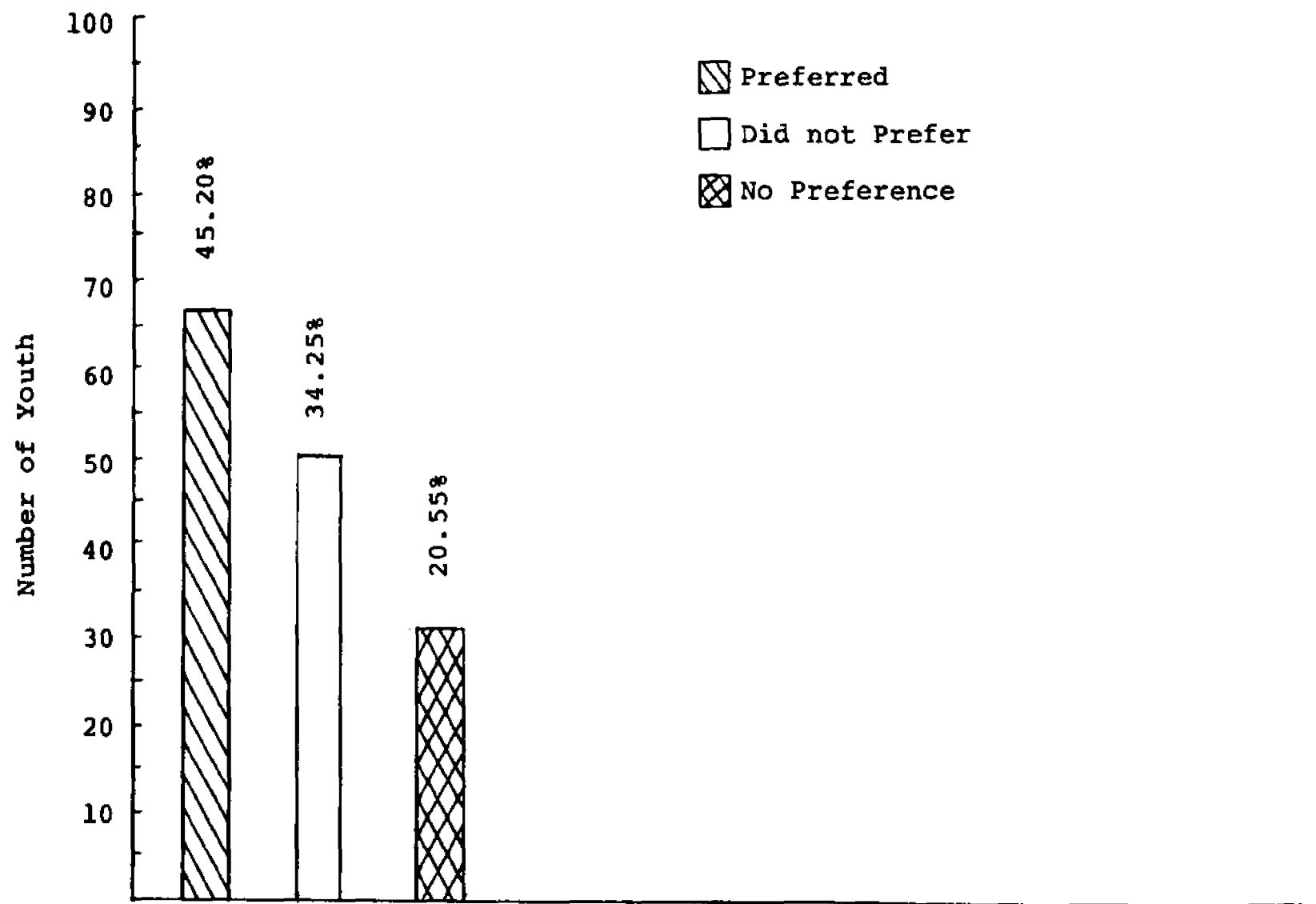


Figure 4.18.--Feelings of youth about having parents, guardians, or adults in the car during interim period while driving on state highways.

TABLE 4.15.--Categories of Driving Experiences where Youth Obtained Assistance on State Highway Driving During Interim Period.

Categories	Number of Youth From Sample*	Per cent of Sample*
Passing	9	5.00
Turns	3	1.67
Lane Changing	6	3.33
Too Close to Other Cars	3	1.67
General Driving Assistance	49	27.22
Night Driving	13	7.22
Other	18	10.00
Total	101	56.11

*Sample of 180.

3. For passing other vehicles, 5.00 per cent of the youth indicated that they received help in doing this task.
4. Three and thirty-three hundredths per cent of the interviewees revealed that they needed assistance from the adult in the car while lane changing.
5. While driving at night 7.22 per cent reported they secured help during this time.

Presented in Tables 4.16 and 4.17 are the data relative to the per cent of youth who experienced problems

TABLE 4.16.--Driving Experiences where Youth had Problems while Driving on State Highways During Interim Period.

Thirty-Day Interim Period Problem Categories	Number of Youth From Sample*	Per cent of Sample*
Passing	3	1.67
Lane Positioning	5	2.78
Stick Shift	7	3.89
Maintaining Speed	2	1.11
Other	3	1.67
Total	20	11.11

*Sample of 180.

TABLE 4.17.--Driving Experiences where Youth had Problems while Driving on State Highways During Driver Education.

Driver Education Problem Categories	Number of Youth From Sample*	Per cent of Sample*
Passing	5	2.78
Lane Changing	5	2.78
Maintaining Proper Lane	3	1.67
When to Slow Down for Turns	3	1.67
Other	6	3.33
Total	22	12.22

*Sample of 180.

while driving on state highways during the interim period and during driver education. These data showed:

1. Of those youth interviewed, 70.00 per cent declared that they had no difficulty while driving on this type of road during the interim period.
2. For the 1.11 per cent of youth that had problems, 2.78 per cent had difficulty positioning the car in the proper lane.
3. Three and eighty-nine hundreds per cent had problems driving a manual shift car on a state highway during the interim period.
4. During driver education 68.33 per cent indicated they had not experienced any difficulty driving on state highways.
5. Of the 12.22 per cent of the youth who had difficulty during driver education, 2.78 per cent had problems passing other vehicles.
6. Two and seventy-eight hundreds per cent of the interviewees had problems lane changing during driver education on state highways.

In Tables 4.18 and 4.19 are the data concerning the opinion of youth as to why they thought driver education instruction on state highways was adequate or not.

The data showed:

1. Of those youth interviewed, 61.66 per cent thought the instruction was adequate.

TABLE 4.18.--Response of Youth as to Why Driver Education Preparation on State Highways was Adequate.

Response	Number of Youth From Sample*	Per cent of Sample*
Enough Time	54	30.00
Instruction Good	29	16.11
Experience Good	13	7.22
Not a Complicated Task	7	3.89
No Reason	8	4.44
Total	111	61.66

*Sample of 180.

TABLE 4.19.--Response of Youth as to Why Driver Education Preparation on State Highways was Not Adequate.

Response	Number of Youth From Sample*	Per cent of Sample*
Not Enough Time	28	15.56
Need Night Driving	3	1.67
Not True Representation	2	1.11
Not Enough Passing	1	.56
Total	34	18.90

*Sample of 180.

2. For the youth who responded that driver education was adequate, 30.00 per cent believed the amount of time spent on state highway driving was sufficient.
3. Sixteen and eleven hundredths per cent of the individuals were of the opinion that the instruction by the teacher was good.
4. Of the youth responding that driver education was adequate, 7.22 per cent thought the experience on state highways was good.
5. Three and eighty-nine hundredths per cent thought the task of driving on state highways was not complicated.
6. For the 18.90 per cent of the youth that were of the opinion that the instruction was not adequate, 15.56 per cent thought the time spent on state highways was too short.

Rural Roads

This section is comprised of data pertaining to rural road driving experience. Presented are (1) the per cent of youth who drove on a rural road; (2) number of occurrences; (3) estimate of total time; (4) driving on a rural road while the weather was rainy; (5) rural road driving while fog existed; (6) driving on this type of road while it was dark; (7) per cent of youth who preferred having a parent, guardian or adult in the car; (8) categories where youth obtained assistance; (9) categories

where youth had problems; and (10) number of youth who thought the instruction in driver education was adequate. The data are presented in Tables 4.20 through 4.25 and in Figures 4.19 through 4.24.

Presented in Table 4.20 are the data relative to the percentage of youth who drove on rural roads during the thirty-day interim period and during driver education. The data secured from the sample indicated:

1. During the interim period 16.67 per cent of the youth lacked the experience of driving on a rural road, 1.67 per cent of these individuals did not have a validated driver education certificate or a temporary instruction permit. Of the remaining 15.00 per cent who had a valid permit and did not drive on this type of road during this period, they stated their parents saw no need.
2. The sample data revealed that 13.89 per cent of the youth in driver education did not receive any driving experience on rural roads. These individuals attributed this to the teacher's lack of instruction.

In Figure 4.19 are presented data concerning the number of occurrences that youth drove on rural roads.

The data revealed:

1. For youth driving during the interim period, 36.11 per cent drove from 1-5 occurrences.

TABLE 4.20.--Rural Road Driving for Youth.

Response	Number of Youth From Sample for Interim Period	Per cent of Sample*	Number of Youth From Sample for Driver Education	Per cent of Sample*
Lacked Proper Permit	3	1.67		
Drove On a Rural Road	150	83.33	155	86.11
Did Not Drive On a Rural Road	27	15.00	25	13.89

*Sample of 180.

2. For the limit of 6-10 occurrences they had 22.78 per cent, and the remainder of youth were dispersed to a high of 80 occurrences in which .56 per cent were in this category.
3. For the range of driving occurrences 1-5 during driver education, 79.44 per cent were within this limit.
4. Six and eleven hundreds per cent of the youth drove 6-10 times during driver education, and .56 per cent drove a high of 12 occurrences on a rural road.

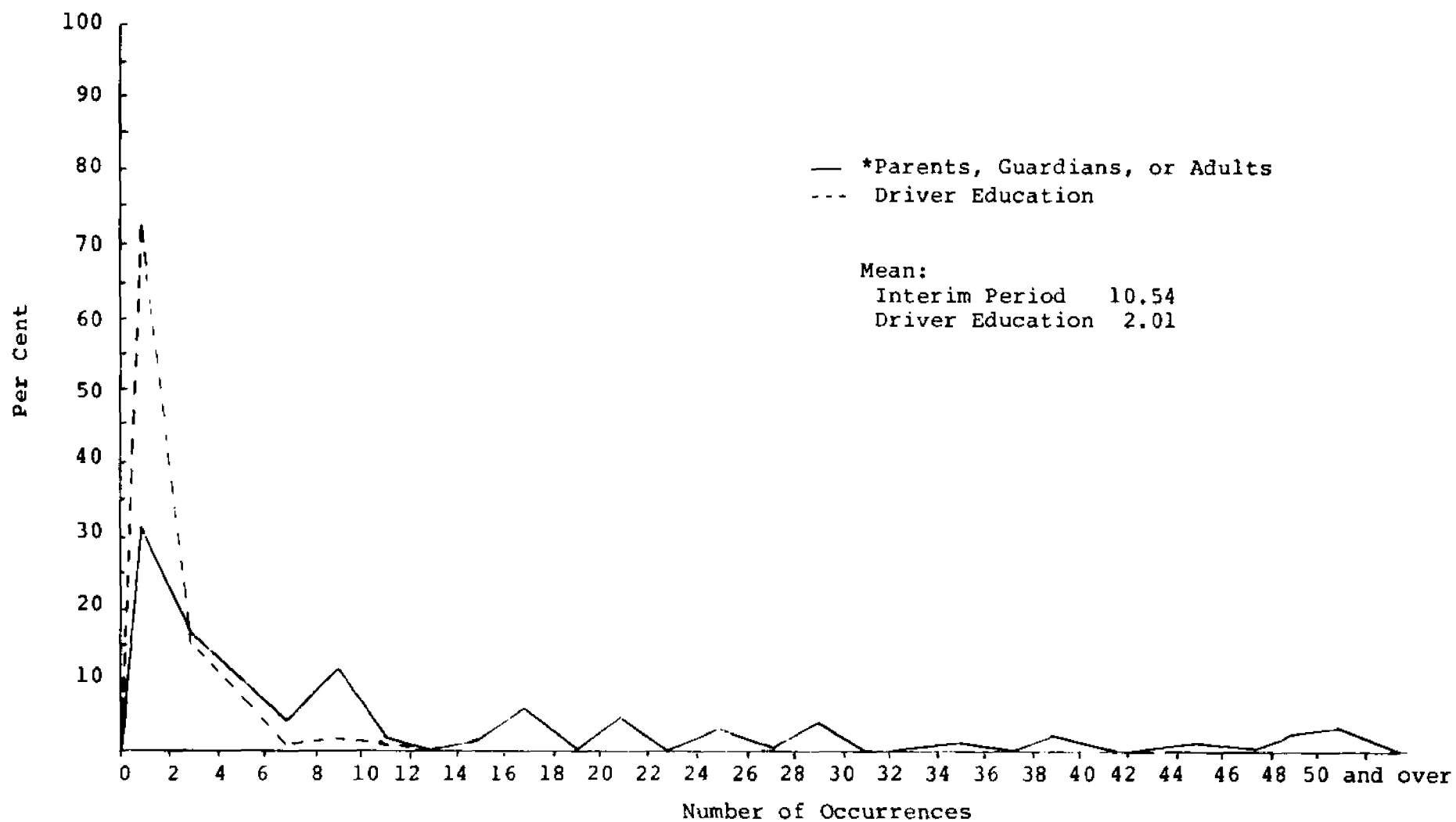


Figure 4.19.--Total rural driving occurrences for youth with parents* as compared to driver education.

5. The mean for driving occurrences on rural roads during the interim time was 10.54 and during driver education it was 2.01.

The data relative to the estimate of total time, as measured in hours, are presented in Figure 4.20. The data indicated:

1. For the interim period, 41.11 per cent of the youth revealed they drove on a rural road for less than an hour.
2. Seventeen and twenty-two hundreds per cent of the sample estimated 1-2 hours driving in this period.
3. For 2-3 total hours driving time in the interim period, 12.78 per cent of the interviewees logged this much driving time on rural roads.
4. The remainder of the sample was scattered with .56 per cent of the youth stating they drove on this type of road for approximately 50 hours during this time.
5. The estimate of total time driving on rural roads while in driver education for the range of 0-1 hour was 61.67 per cent.
6. Twelve and eleven hundreds per cent of the sample drove during driver education 1-2 hours.
7. Of those youth interviewed, 7.22 per cent indicated they drove for 2-3 hours.

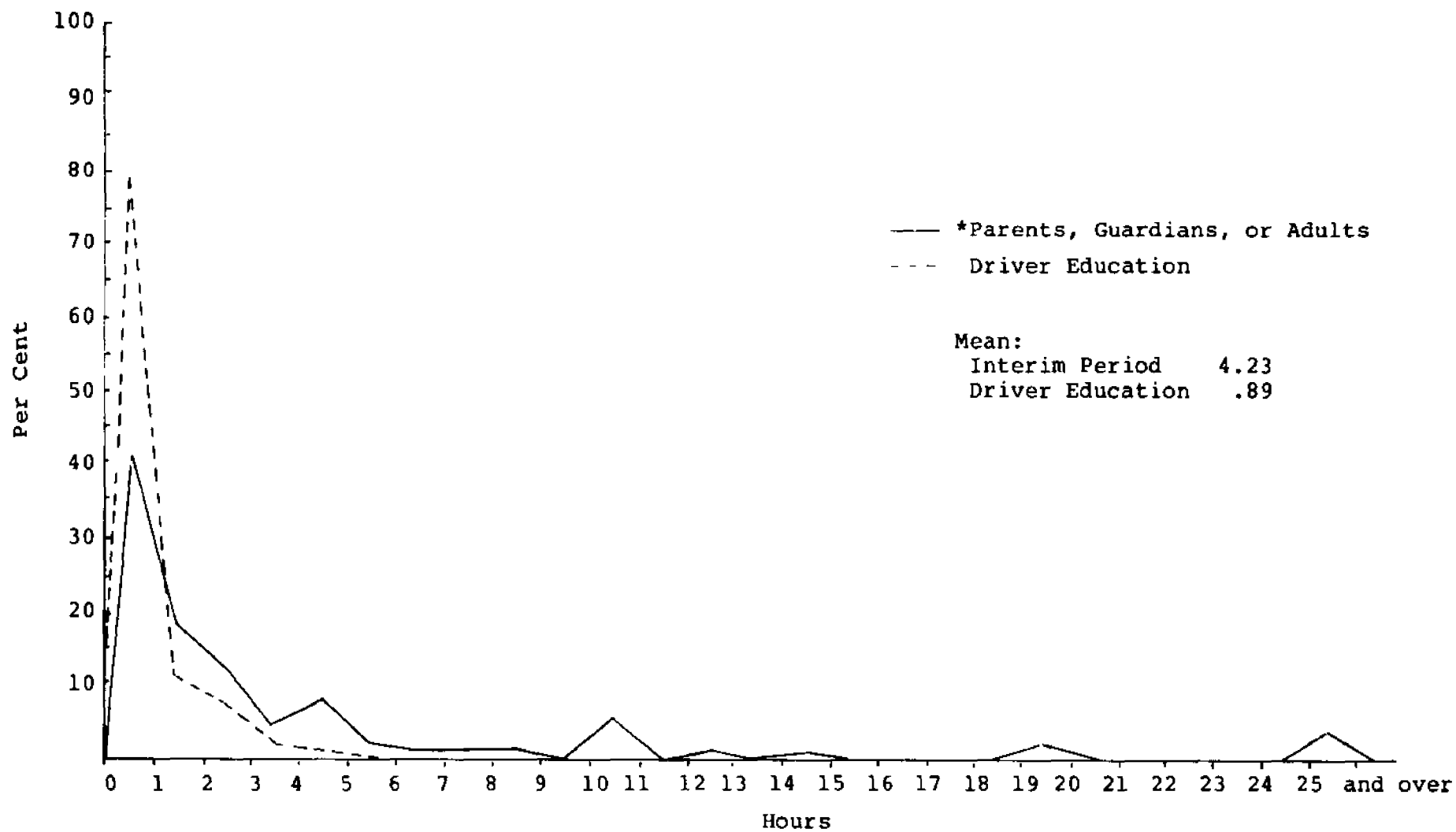


Figure 4.20.--Estimate of total time driving on rural roads for youth with parents* as compared to driver education.

8. One and eleven hundreds per cent of the interviewees indicated they drove for 4-5 hours on this classification of roadway.
9. The means for the estimate of total time for the thirty-day period was 4.23 hours and for driver education .89 hours.

Represented in Figure 4.21 are the data pertaining to the per cent of youth who drove on a rural road when rainy weather conditions existed. The data secured indicated:

1. For the interim period 58.89 per cent of the youth never drove on this type of road when rain was present.
2. Forty per cent of the sample drove from 1-5 times on a rural road while it was raining.
3. The data indicated that 93.33 per cent of the youth in driver education lacked this experience.
4. Six and eleven hundreds per cent alleged they drove on a rural road once when the weather was rainy.
5. The means for driving occurrences on rural roads when rain existed was .91 for the interim period and .12 for driver education.

In Figure 4.22 are presented the data concerning the number of driving occurrences the youth had on rural

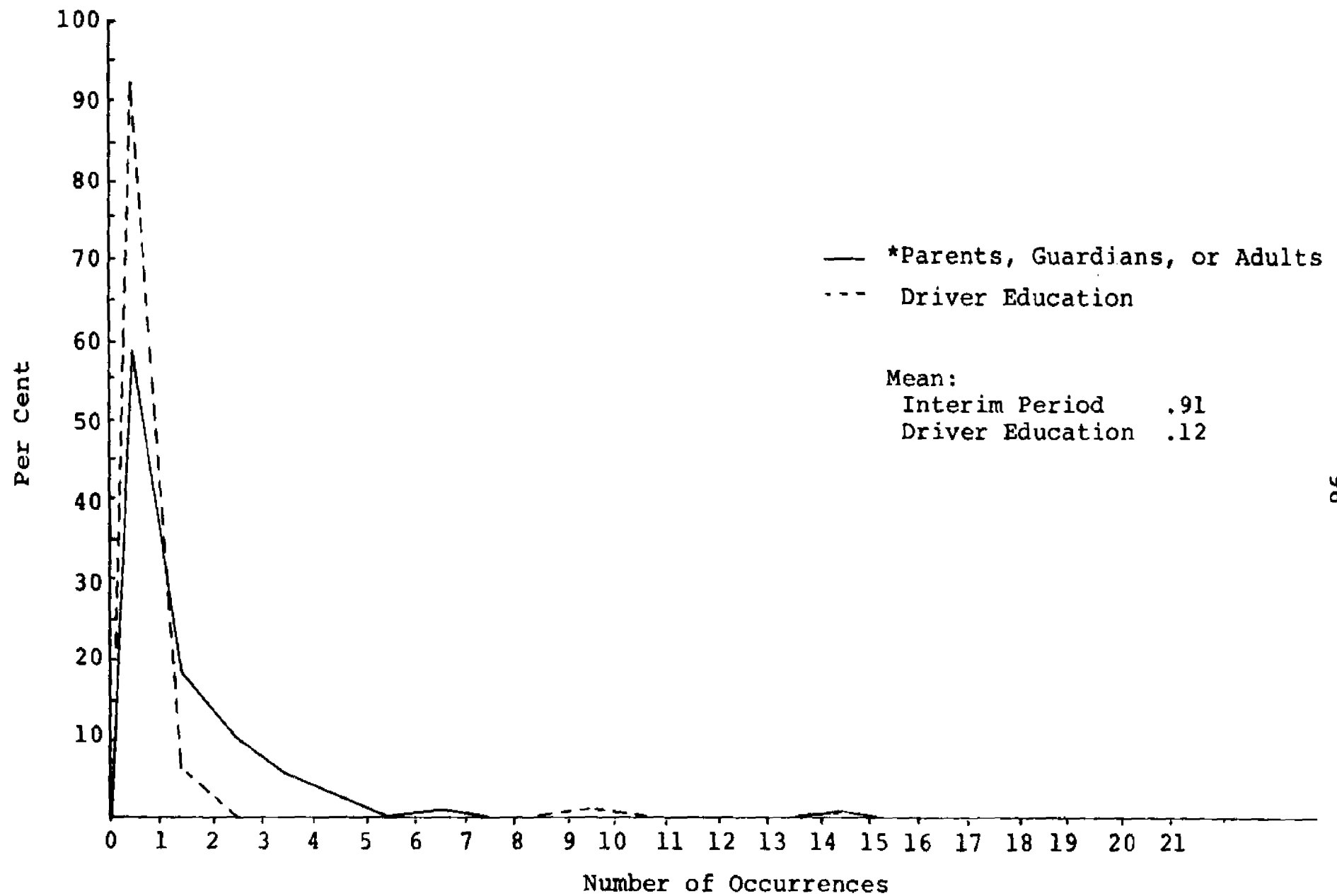


Figure 4.21.--Rural road driving while raining for youth with parents* as compared to driver education.

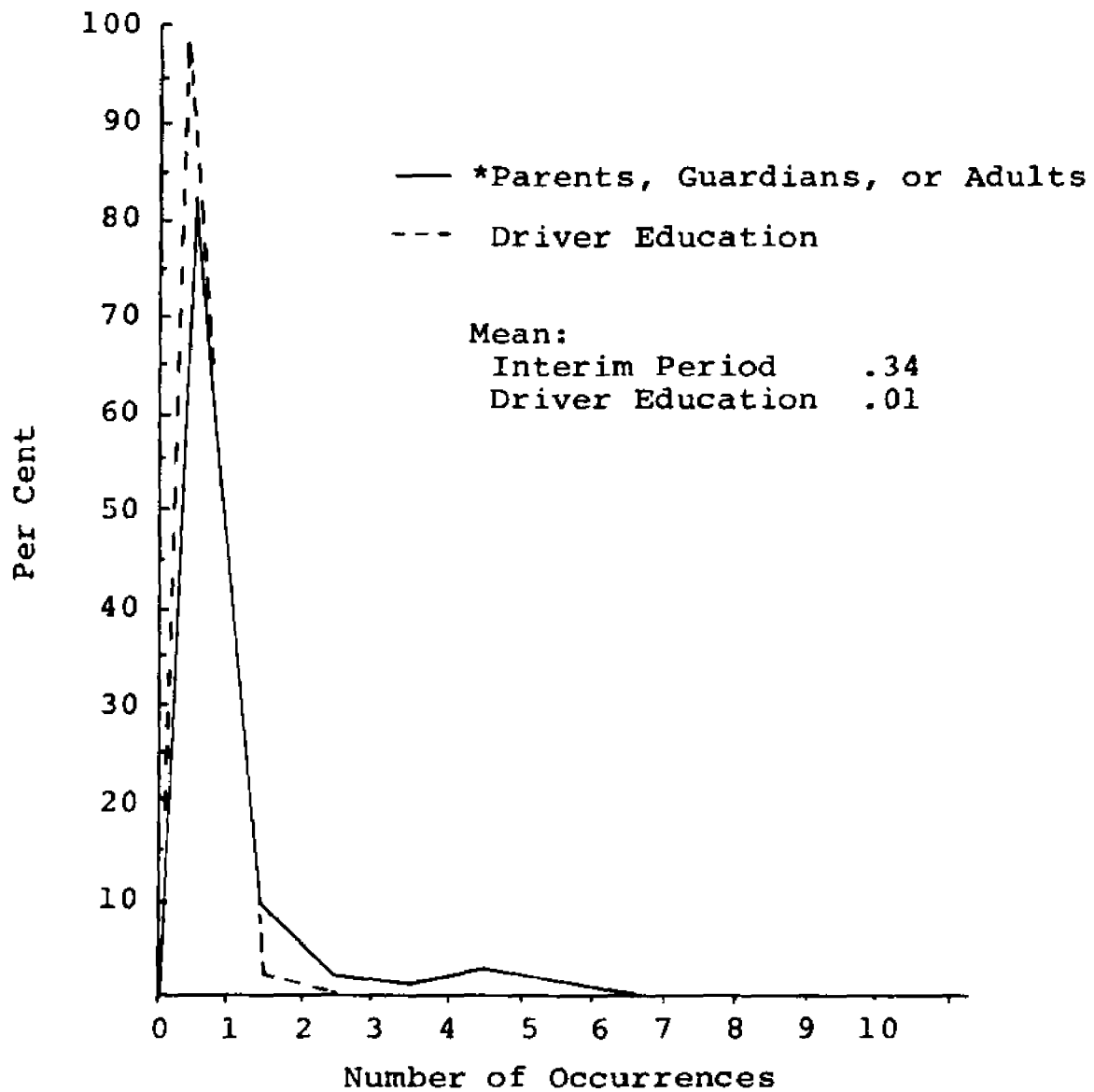


Figure 4.22.--Rural road driving while foggy for youth with parents* as compared to driver education.

roads with foggy weather conditions existing. These data indicated:

1. During the interim period 83.33 per cent of the sample responded negatively to having had any driving experience when fog was present on a rural road.
2. All of the youth were within the limit of six driving occurrences when this condition existed on rural roads.
3. In driver education, 99.44 per cent of the interviewees never obtained any experience on this type of road when fog was present.
4. Less than 1 per cent (.56) drove once with this condition present.
5. The means for driving occurrences on rural roads with fog present was .34 for the interim period and .01 for driver education.

Figure 4.23 depicts the data relative to the number of times youth drove on rural roads when darkness was existing during the interim period and during driver education. The data obtained indicated:

1. Fifty-one and sixty-seven hundreds per cent of the sample did not drive on a rural road when darkness was present in the interim period.

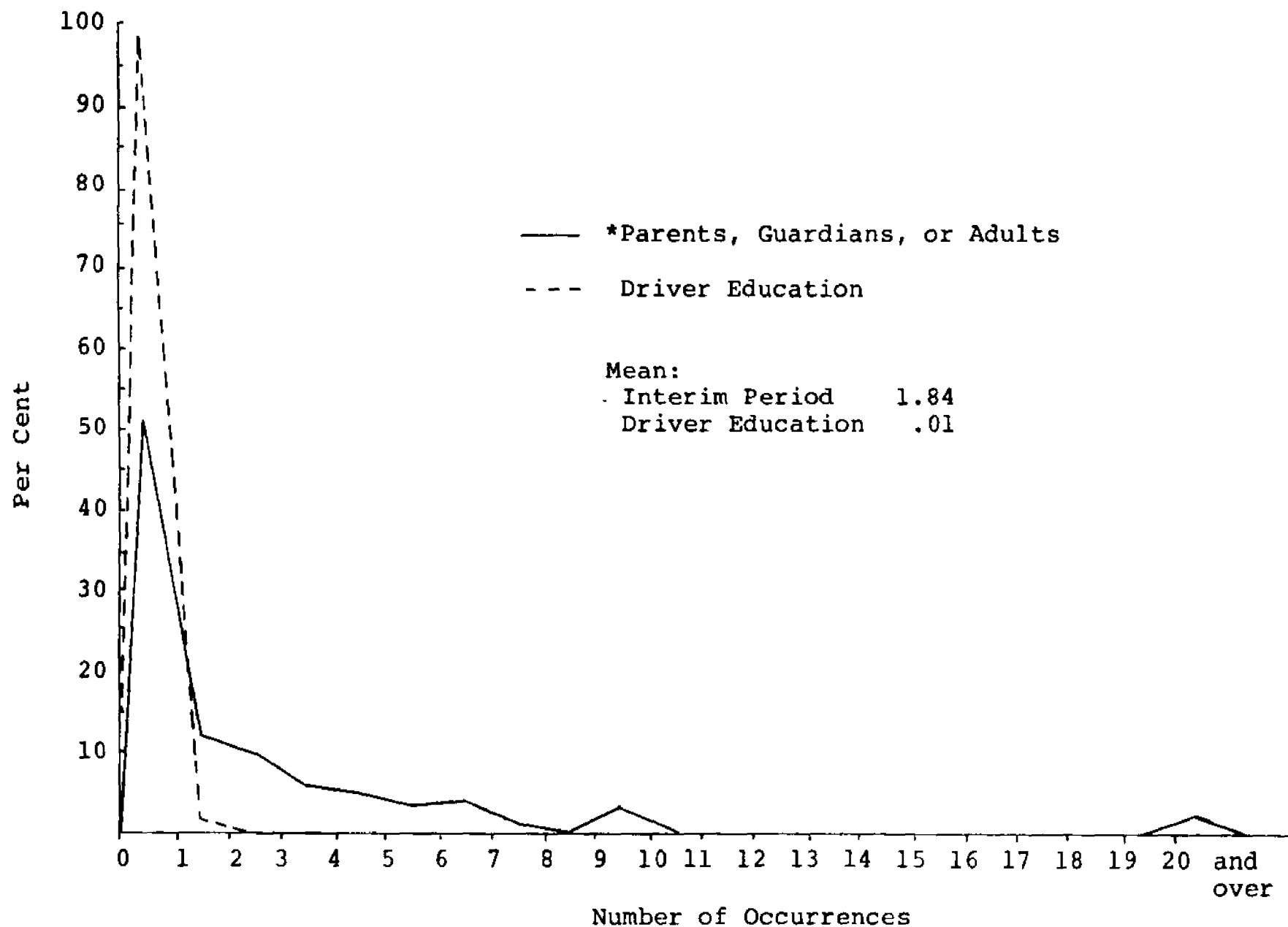


Figure 4.23.--Rural road driving while dark for youth with parents* as compared to driver education.

2. For the range of driving occurrences from 1-5, 38.89 per cent of the individuals drove on this road in darkness.
3. Of the youth interviewed, 8.33 per cent responded that they drove with this condition present on rural roads during the interim time.
4. During driver education 98.89 per cent of the sample indicated that they did not drive on this type of road when it was dark.
5. Only 1.11 per cent responded positively for one driving occurrence while in driver education.
6. For driving occurrences when it was dark, the means were 1.84 for the interim period and .01 for driver education.

The data presented in Figure 4.24 concerns the per cent of youth who preferred having a parent, guardian or licensed adult in the car with them during the thirty-day interim period while driving on rural roads. These data indicated:

1. Fifty per cent of the youth revealed that they preferred having a parent, guardian or licensed adult in the car with them.
2. For this same period, 30.67 per cent did not care for this.

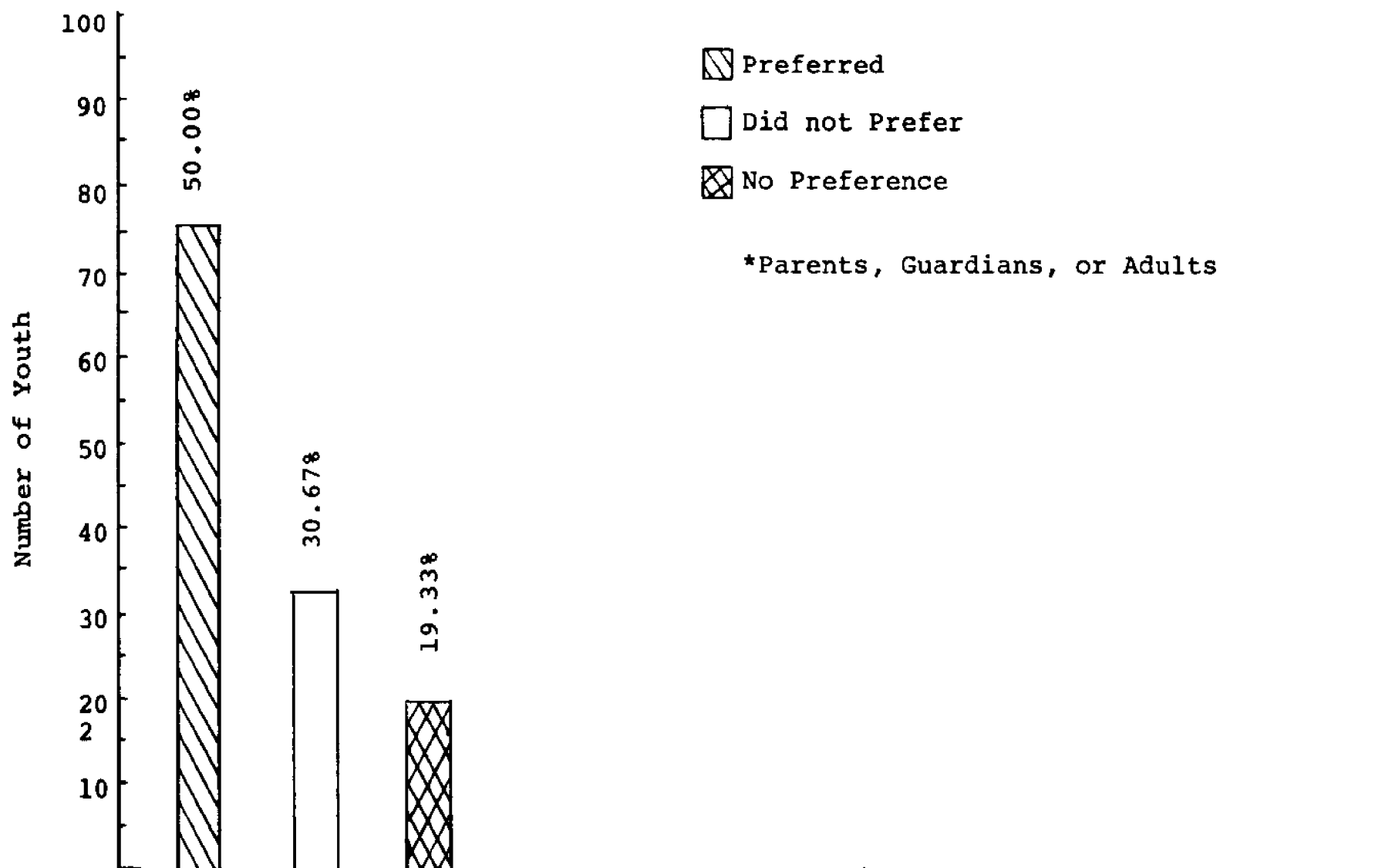


Figure 4.24.--Feelings of youth about having parents* in car during interim period while driving on rural roads.

3. Nineteen and thirty-three hundreds per cent of the youth had no preference.

In Table 4.21 are presented the data concerning the categories where youth obtained assistance on rural road driving during the interim period. The data indicated:

1. Fifty-two and seventy-eight hundreds per cent of the youth indicated they received assistance while driving on this classification of roadway.
2. Twenty-two and twenty-two hundreds per cent responded that the assistance was general in nature.
3. For driving too fast on rural roads, 3.89 per cent of the youth indicated they had difficulty here.
4. Seven and twenty-two hundreds per cent of the sample revealed they need assistance when driving at night on rural roads.
5. For allowing for road conditions, 3.89 per cent stated they received help in doing this.

Presented in Tables 4.22 and 4.23 are the data relative to the per cent of youth who experienced difficulty while driving on rural roads during the interim period and during driver education. These data showed:

1. Of those youth interviewed, 67.22 per cent declared that they had no problem while driving on this type of road during the interim period.

TABLE 4.21.--Categories of Driving Experiences where Youth
Obtained Assistance on Rural Roads During
Interim Period.

Categories	Number of Youth From Sample*	Per cent of Sample*
Driving Too Fast	7	3.89
General Driving Assistance	48	26.67
Allowing for Road Conditions	7	3.89
Intersections	5	2.78
Night Driving	13	7.22
Pedestrians	3	1.67
Passing Other Cars	4	2.22
Stick Shift	2	1.11
Other	6	3.33
Total	95	52.78

*Sample of 180.

TABLE 4.22.--Driving Experiences where Youth Had Problems
While Driving on Rural Roads During Interim
Period.

Thirty-Day Interim Period Problem Categories	Number of Youth From Sample*	Per cent of Sample*
Adjusting to Narrow Roads	3	1.67
Night Driving	9	5.00
Adjusting to Gravel	5	2.78
Maintaining Proper Lane	9	5.00
Approaching Cars	3	1.67
Total	29	16.12

*Sample of 180.

TABLE 4.23.--Driving Experiences where Youth Had Problems While Driving on Rural Roads During Driver Education.

Driver Education Problem Categories	Number of Youth From Sample*	Per cent of Sample*
Steering	7	3.89
Maintaining Proper Lane	10	5.56
Farm Equipment	2	1.11
Turns	3	1.67
Hills	2	1.11
Other	5	2.78
Total	29	16.12

*Sample of 180.

2. For the 16.12 per cent who had problems, 5.00 per cent had difficulty maintaining proper lane position.
3. Five per cent of the youth during the interim period had problems driving at night.
4. During the interim time 2.78 per cent had difficulty adjusting to driving on gravel.
5. For those youth in driver education, 69.44 per cent indicated they had not experienced any difficulty on rural roads.
6. Of the 16.12 per cent who had problems during driver education, 5.56 per cent had difficulty maintaining proper lane position.

7. Three and eighty-nine hundreds per cent had difficulty steering on rural roads during driver education.

In Tables 4.24 and 4.25 are the data concerning the opinion of youth as to whether driver education preparation on rural roads was adequate or not. The data indicated:

1. Of those youth interviewed, 75.00 per cent thought the instruction was adequate.
2. For the youth who responded positively, 28.33 per cent believed that rural road driving was not a complicated task.
3. Sixteen and eleven hundreds per cent of the youth were of the opinion that the instruction was good.
4. Of the youth indicating the driver education instruction was adequate, 25.56 per cent thought enough time was spent driving on rural roads.
5. For the 11.11 per cent of the youth that were of the opinion that the instruction was not adequate, 9.44 per cent thought the time spent on rural roads was too short.
6. One and eleven hundreds per cent thought night driving on rural roads should be taught.

TABLE 4.24.--Responses of Youth as to Why Driver Education Preparation on Rural Roads was Adequate.

Response	Adequate Preparation	
	Number of Youth From Sample*	Per cent of Sample*
Not a Complicated Task	51	28.33
Instruction Good	29	16.11
Experience Good	4	2.22
Enough Time	46	25.56
No Reason	5	2.78
Total	135	75.00

*Sample of 180.

TABLE 4.25.--Responses of Youth as to Why Driver Education Preparation on Rural Roads was Not Adequate.

Response	Not Adequate Preparation	
	Number of Youth From Sample*	Per cent of Sample*
Not Enough Time	17	9.44
No Night Driving	2	1.11
Teacher No Help	1	.56
Total	20	11.11

*Sample of 180.

Residential Areas

In this section are embodied the data relative to residential area driving experience. Represented are (1) the per cent of youth who drove in this type of area; (2) number of occurrences; (3) estimate of total time; (4) residential area driving while the weather was rainy; (5) driving while it was foggy; (6) residential area driving while darkness was present; (7) per cent of youth who preferred having a parent, guardian or licensed adult in the car; (8) categories where youth obtained assistance; (9) categories where youth had problems; and (10) number of youth who thought the instruction in driver education was adequate. These data are presented in Tables 4.26 through 4.31 and Figures 4.25 through 4.30.

Presented in Table 4.26 are the data relative to the per cent of youth who drove in residential areas during the interim period and during driver education. The data secured from the sample indicated:

1. For the thirty-day interim period 8.34 per cent of the individuals interviewed lacked experience driving in this type of area; 1.67 per cent did not possess a validated driver education certificate or a temporary instruction permit. Of the remaining 6.67 per cent of the sample who did not drive in a residential area during the interim period, who were licensed, they specified that the

TABLE 4.26.--Youth Driving in Residential Area.

Response	Number of Youth from Sample for Interim Period	Per cent of Sample*	Number of Youth from Sample for Driver Education	Per cent of Sample*
Lacked Proper Permit	3	1.67		
Drove in Area	165	91.67	165	91.67
Did Not Drive In Area	12	6.67	15	8.33

*Sample of 180.

reason they did not was because their parents saw no need.

2. The sample data revealed that 8.33 per cent of the youth in driver education did not drive in this type of area.
3. The 8.33 per cent who responded negatively as to having driven in a residential area during driver education attributed this to the teacher's lack of instruction.

In Figure 4.25 are presented data concerning the number of times that youth drove in residential areas.

The data revealed:

1. For youth driving during the interim period, 38.88 per cent drove from 1-5 occurrences.

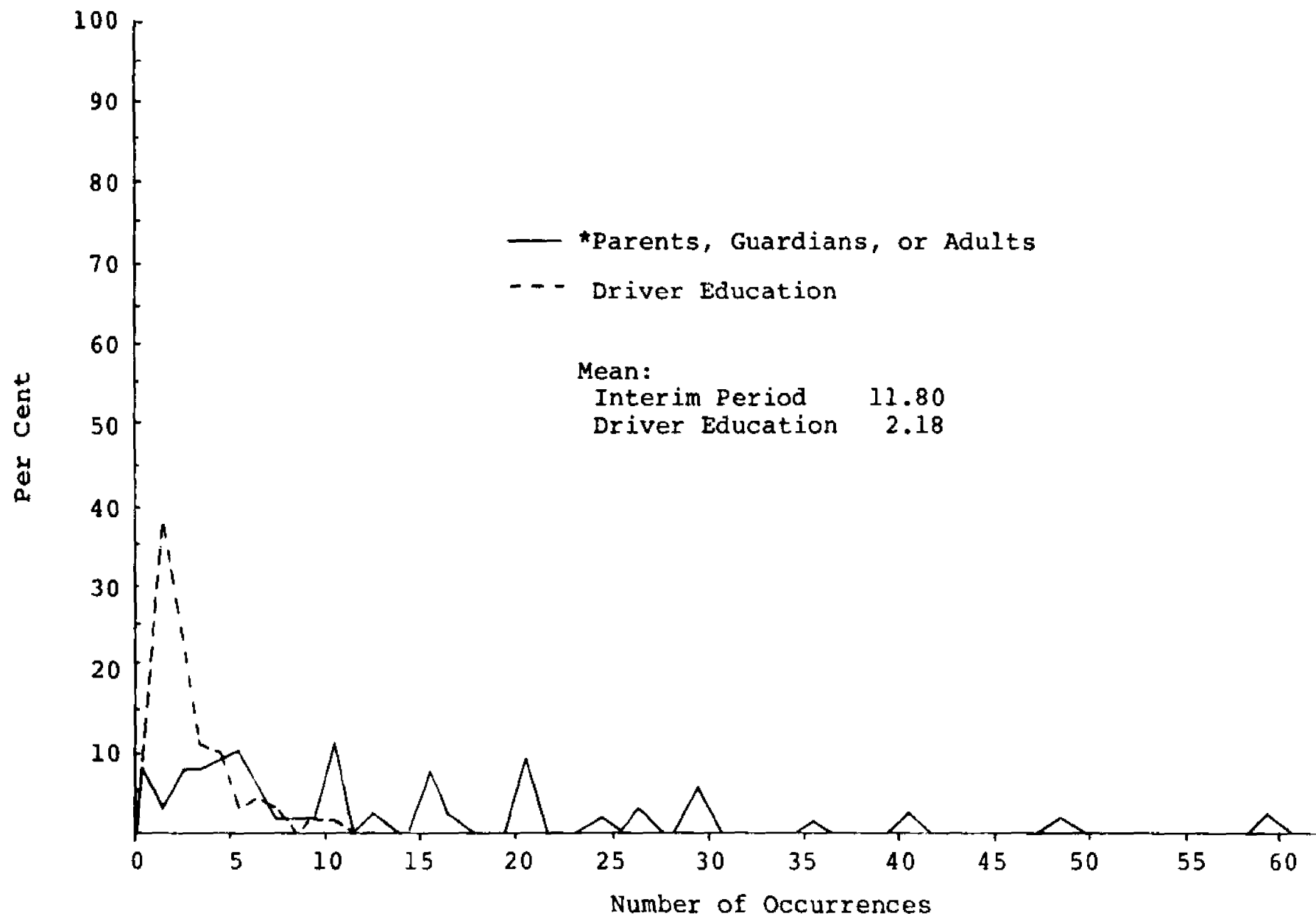


Figure 4.25.--Total driving occurrences in a residential area of youth with parents* as compared to driver education.

2. The range of 6-10 occurrences had 18.89 per cent of the youth who had driven in this type of area.
3. For the range of driving occurrences 11-15, 8.33 per cent of the sample drove.
4. Of the youth driving during the interim period, 10.56 per cent drove from 16-20 times in a residential area.
5. Thirteen and thirty-four hundreds per cent drove during this time 21-25 times.
6. During the thirty-day interim period 12.22 per cent drove in a residential area more than 25 times.
7. While in driver education, 84.45 per cent of the interviewees drove in this type of area 1-5 times.
8. For the range of driving occurrences 6-10 during driver education, 7.22 per cent were within this limit.
9. The means for total driving occurrences in a residential area were 11.80 for the interim period and 2.18 for driver education.

The data relative to the estimate of total time are presented in Figure 4.26. The data secured indicated:

1. For the thirty-day interim period, 46.67 per cent drove in a residential area for less than an hour.

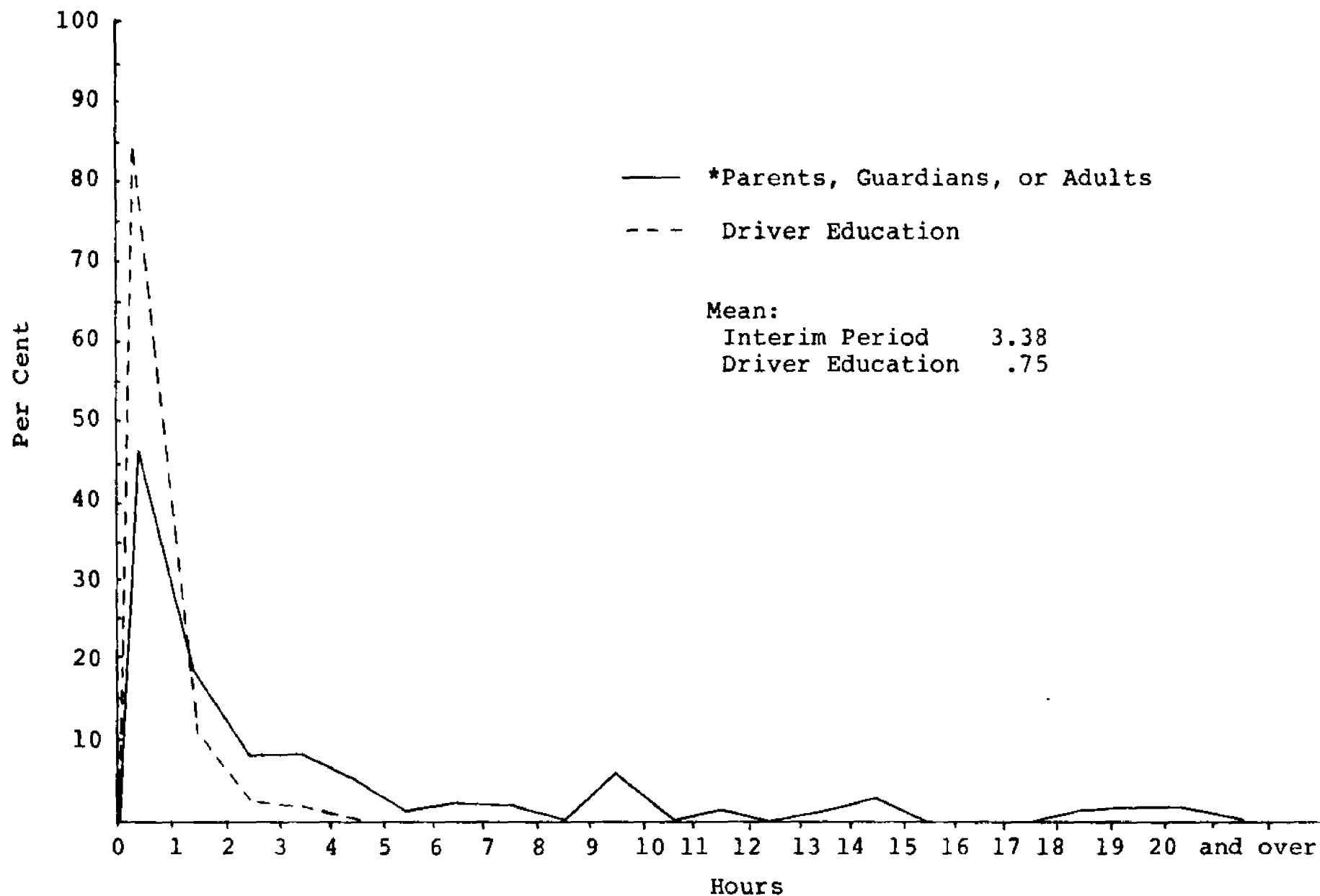


Figure 4.26.--Estimate of total time driving in residential areas for youth with parents* as compared to driver education.

2. Seventeen and seventy-seven hundreds per cent of the sample estimated 1-2 hours driving in this period.
3. For 2-3 hours total driving time in the interim, 7.78 per cent of the youth obtained this much time driving.
4. The data indicated that 12.22 per cent of the youth drove from 3-4 hours during this period of time in a residential area.
5. For the interim period, 15.56 per cent of the interviewees drove for more than a total of 4 hours in this type of area.
6. In the estimate of total time driving in a residential area while in driver education, 83.39 per cent drove less than an hour.
7. Only 1.11 per cent of the sample drove 1-2 hours during driver education in this type of area.
8. Of those youth interviewed, 3.89 per cent reported that they drove, while in driver education, from 2-3 hours.
9. One and eleven hundreds per cent of the interviewees drove in driver education in a residential area above 3 hours.
10. The means for estimate of total time were 3.38 hours for the interim period and .75 hours for driver education.

Presented in Figure 4.27 are the data relative to the number of occurrences youth drove in a residential area when rainy weather conditions existed. The data denoted:

1. For youth during the interim period, 47.78 per cent never drove in this type of area when rain was present.
2. For 1-5 occurrences driving in a residential area while it was raining, 48.33 per cent of the youth responded.
3. Three and eighty-nine hundreds per cent indicated they had driven in this area when rainy weather existed more than 5 times.
4. The driver education experience for this situation revealed that 83.33 per cent of the youth lacked any driving.
5. While in driver education, 11.67 per cent of the youth had experienced driving in the rain in a residential area once.
6. The means for driving on this type of area when rainy weather existed were 1.21 for the interim time and .12 for driver education.

Depicted in Figure 4.28 are the data pertaining to the total occurrences that youth drove in a residential area when foggy weather was present. The data secured indicated:

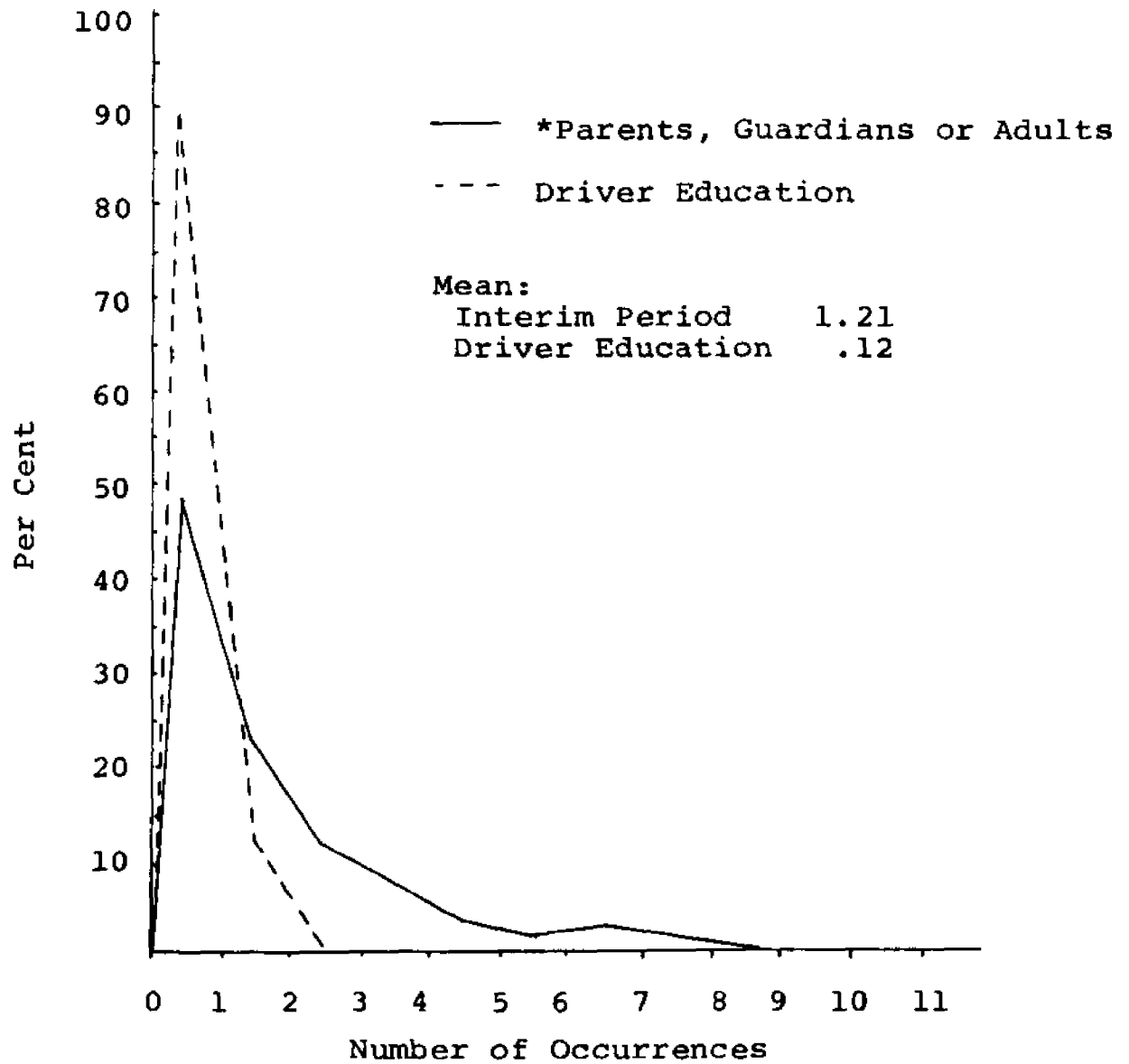


Figure 4.27.--Residential driving while raining for youth with parents* as compared to driver education.

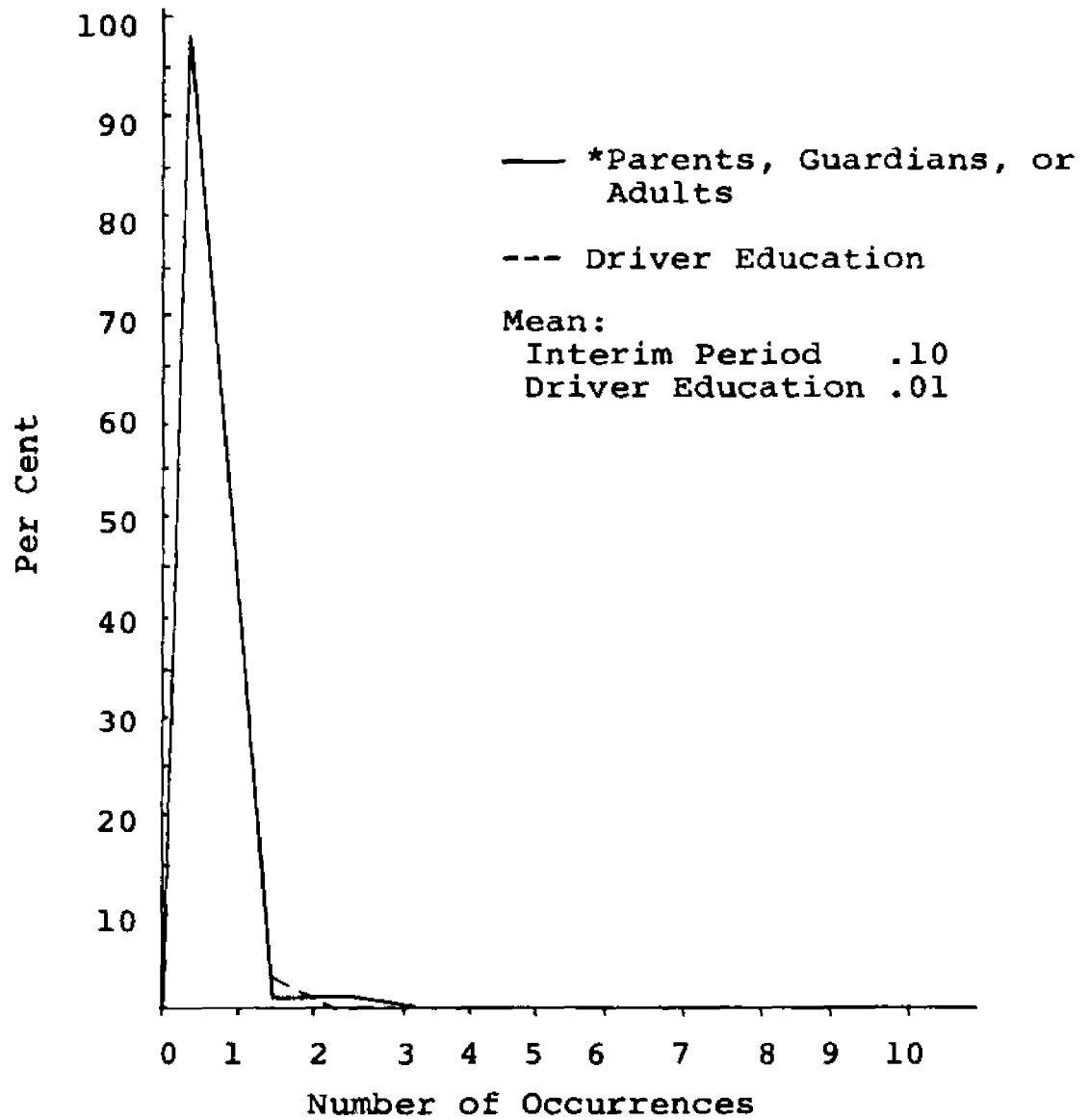


Figure 2.28.--Residential driving while foggy for youth with parents* as compared to driver education.

1. Ninety-one and sixty-seven hundreds per cent of the youth lacked the experience of driving in this type of area when fog was present during the interim period.
2. Of the individuals interviewed, 7.22 per cent specified that they had done so once.
3. Only 1.12 per cent of the youth drove in fog in a residential area during the interim period three times.
4. During driver education only 1.11 per cent of the sample had received any experience while driving in this area with fog existing.
5. The mean for driving occurrences in a residential area during the interim period with fog present was .10. The mean for this during driver education was .01.

Presented in Figure 4.29 are the data relative to the per cent of youth who drove in a residential area when darkness was present during the interim period and during driver education. These data revealed:

1. Forty-six and eleven hundreds per cent of the youth never drove in this type of area when darkness existed in the thirty-day interim period.
2. During the interim period 40.00 per cent of the sample drove in a residential area 1-5 times when this condition existed.

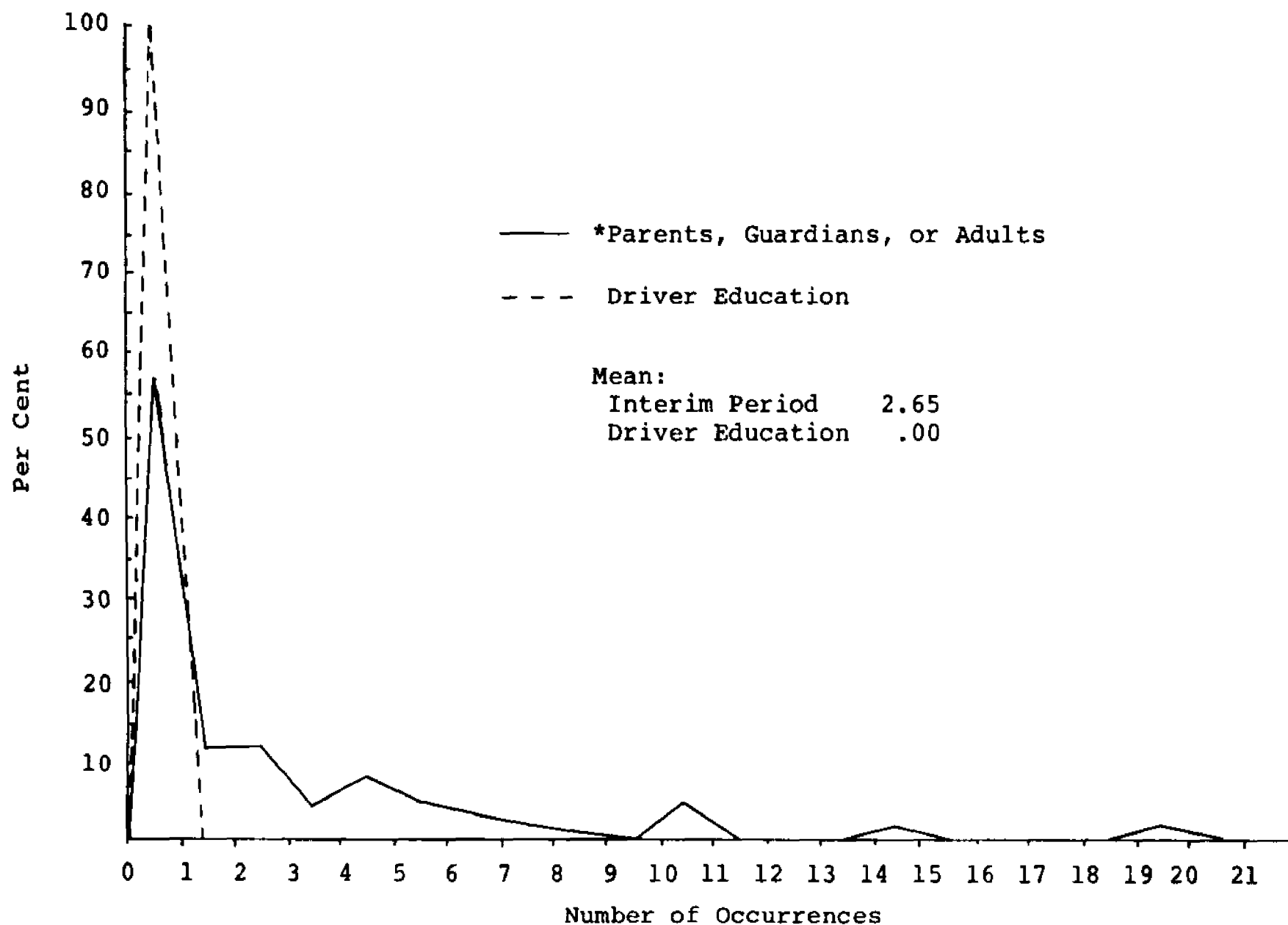


Figure 4.29.--Residential driving while dark for youth with parents* as compared to driver education.

3. Three and thirty-three hundreds per cent of the youth experienced this more than 10 times.
4. Of those youth interviewed, no one reported that he had ever driven in a residential area during driver education when darkness was present.
5. The mean for driving occurrences with darkness present in this type of area were 2.65 for the interim period; all youth lacked this experience in driver education.

In Figure 4.30 are presented the data concerning the per cent of youth who preferred having a parent, guardian or adult in the car with them during the interim period. These data indicated:

1. Fifty-four and fifty-six hundreds per cent of the youth stated they preferred having one of these individuals in the car with them.
2. For the same question, 29.69 per cent responded negatively.
3. Fifteen and seventy-five hundreds per cent designated no preference.

Presented in Table 4.27 are the data concerning the categories where youth obtained assistance in a residential area during the interim period. The data indicated:

1. Most of the youth, 63.89 per cent, obtained some assistance from the adult individual with whom they drove in residential areas.

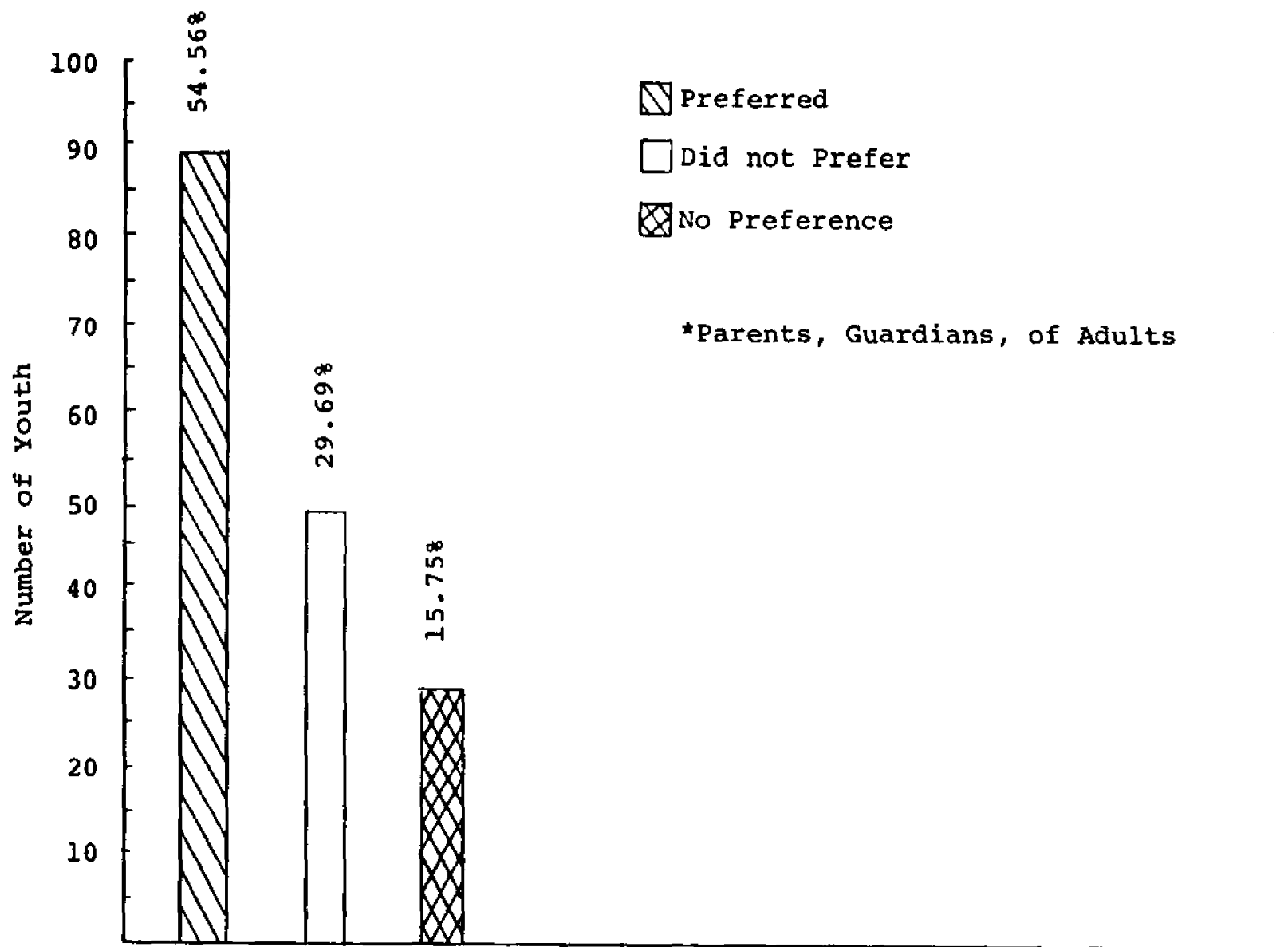


Figure 4.30.--Feelings of youth about having parents* in the car during interim period while driving in residential areas.

TABLE 4.27.--Categories of Driving Experiences Where Youth Obtained Assistance in Residential Areas During Interim Period.

Categories	Number of Youth From Sample*	Per cent of Sample*
General Driving Assistance	63	35.00
Watching for Children	20	11.11
Speed Too Fast	17	9.44
Correct Position at Stop Signs	5	2.78
Turns	3	1.67
Parallel Parking	3	1.67
Other	4	2.22
Total	115	63.89

*Sample of 180.

2. Thirty-five per cent responded that the assistance was general in nature.
3. Of the youth interviewed, 11.11 per cent had difficulty seeing children in residential areas.
4. Nine and forty-four hundredths per cent of the youth revealed that they had a tendency to drive too fast in this area.
5. For the sample that got assistance, 2.78 per cent indicated they needed help when positioning to stop at a stop sign.

In Tables 4.28 and 4.29 are the data relative to categories where youth experienced problems while driving in a residential area during the interim time and during driver education. The data revealed:

1. Fourteen and forty-four hundreds per cent of the youth experienced some difficulty while driving in this type of area during the interim period.
2. Of those youth interviewed, 5.00 per cent had problems seeing children while driving during this period of time.
3. During driver education 20.00 per cent had difficulty driving in a residential area.
4. Three and thirty-three hundreds per cent in driver education had difficulty making turns in this area.
5. The sample data indicated that 5.00 per cent of the youth had problems seeing children while driving during driver education.

Presented in Tables 4.30 and 4.31 are the data concerning the opinion of youth as to whether driver education preparation in residential areas was sufficient or not. The data indicated:

1. Of those youth interviewed, 72.22 per cent thought the instruction was adequate.
2. For the youth who responded that driver education was adequate, 42.22 per cent

TABLE 4.28.--Driving Experience Where Youth had Problems
While Driving in Residential Areas During
Interim Period.

Thirty-Day Interim Period Problem Categories	Number of Youth From Sample*	Per cent of Sample*
Children	9	5.00
Bicycles	4	2.22
Making Turns	4	2.22
Lane Changes	2	1.11
Parallel Parking	2	1.11
Maneuvering Around Parked Cars	3	1.67
Other	2	1.11
Total	26	14.44

*Sample of 180.

TABLE 4.29.--Driving Experience Where Youth Had Problems
While Driving in Residential Areas During
Driver Education.

Driver Education Problem Categories	Number of Youth From Sample*	Per cent of Sample*
Children	11	6.11
Making Turns	6	3.33
Seeing Traffic Signs	3	1.67
Maneuvering Around Parked Cars	4	2.22
Driving Speed Limit	3	1.67
Lane Changes	2	1.11
Dogs	2	1.11
Watching for Ohter Cars	2	1.11
Other	3	1.67
Total	36	20.00

TABLE 4.30.--Response of Youth as to Why Driver Education Preparation in Residential Areas was Adequate.

Response	Adequate Preparation	
	Number of Youth From Sample*	Per cent of Sample*
Enough Time	76	42.22
Instruction Good	27	15.00
Experience Good	4	2.22
Easy	14	7.78
No Reason	13	7.22
Not as Complicated as Freeway Driving	5	2.78
Total	139	77.22

*Sample of 180.

TABLE 4.31.--Response of Youth as to Why Driver Education Preparation in Residential Areas was Not Adequate.

Response	Not Adequate Preparation	
	Number of Youth From Sample*	Per cent of Sample*
Not Enough Time	24	13.32
Difficult Area to Drive	1	.56
Poor Instruction	1	.56
Total	26	14.44

*Sample of 180.

believed the amount of time spent driving in residential areas was sufficient.

3. Fifteen per cent of the sample were of the opinion the instruction by the teacher was good.
4. The data indicated that 7.78 per cent of the youth thought that driving in residential areas was not difficult.
5. For the 14.44 per cent of the youth that were of the opinion that the instruction was not adequate, 13.33 per cent thought the time was too short.

Business Areas

In this section are contained the data concerning business area driving experience. Described are (1) the per cent of youth who drove in business areas; (2) number of occurrences; (3) estimate of total time; (4) types of city driving; (5) driving experience in downtown Lansing or Jackson; (6) business area driving while the weather was rainy; (7) driving in this area when the weather was foggy; (8) business area driving when darkness was present; (9) per cent of youth who preferred having a parent, guardian or licensed adult in the car; (10) categories where youth obtained assistance; (11) categories where youth had problems; and (12) number of youth who thought the instruction in driver education was adequate. These

data are presented in Tables 4.32 through 4.37 and Figures 4.31 through 4.38.

Presented in Table 4.32 are the data relative to the per cent of youth who drove in business areas during the interim period and during driver education. The data secured from the sample indicated:

1. During the interim period 36.11 per cent of the youth lacked experience driving in a business area; 1.67 per cent of these individuals did not possess a valid permit. Of the remaining 34.44 per cent of the sample who had proper permit to drive during the thirty-day period, the reason obtained was that their parents saw no necessity to have them drive in this type of area.
2. From those interviewed, the data revealed that 3.89 per cent of them, while in driver education, did not receive behind-the-wheel instruction in business areas.
3. The 3.89 per cent of the youth who responded negatively when asked if they drove in a business area during driver education attributed this to the teacher's lack of instruction.

In Figure 4.31 are depicted the data pertaining to the number of occurrences youth drove in business areas. The data indicated:

TABLE 4.32.--Youth Driving in Business Areas.

Response	Number of Youth From Sample for Interim Period	Per cent of Sample*	Number of Youth From Sample for Driver Education	Per cent of Sample*
Lacked Proper Permit	3	1.67		
Drove In A Business Area	115	63.89	173	96.11
Did Not Drive In A Business Area	62	34.44	7	3.89

*Sample of 180.

1. For youth driving during the thirty-day interim period, 55.66 per cent drove from 1-5 times.
2. For the limit of 6-10 occurrences, there were 7.78 per cent of the sample, and the remainder were dispersed to a high of 40 occurrences.
3. In driver education, all youth drove within the range of 1-5 occurrences.
4. The means for driving occurrences in business areas were 2.93 for the thirty-day interim period and 1.49 for driver education.

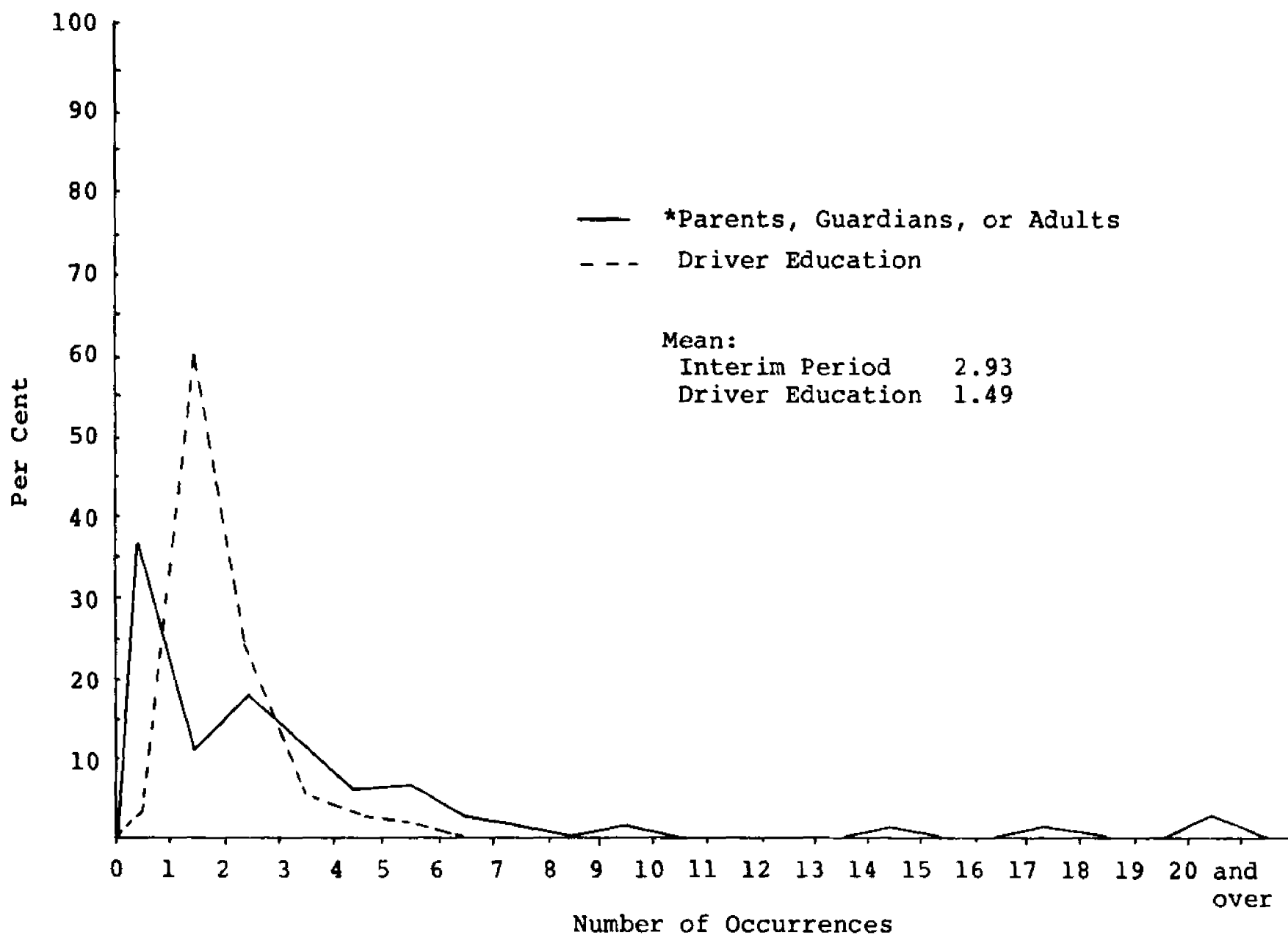


Figure 4.31.--Total driving occurrences in a business area for youth with parents* as compared to driver education.

The data relative to the estimate of total time, as measured in hours, are presented in Figure 4.32. The data secured revealed:

1. For the interim time, 72.22 per cent of the youth revealed that they drove for less than an hour total in this area.
2. Thirteen and eighty-nine hundreds per cent of the sample estimated 1-2 hours driving in this period.
3. The data indicated that 10.56 per cent of the youth drove 2-3 hours during the thirty-day interim time.
4. Less than 1 per cent (.56) indicated they drove in business areas for an estimated total of 15 hours during this period.
5. In the estimate of total time driving in this type of area during driver education, 85.00 per cent drove for less than an hour.
6. Fourteen and forty-four hundreds per cent of the sample drove while in driver education 1-2 hours in business areas.
7. Less than 1 per cent (.56) drove for more than 2 hours in this type of area while in driver education.
8. The mean for the estimate of total time was 1.20 hours for the interim period. It was .76 hours for driver education.

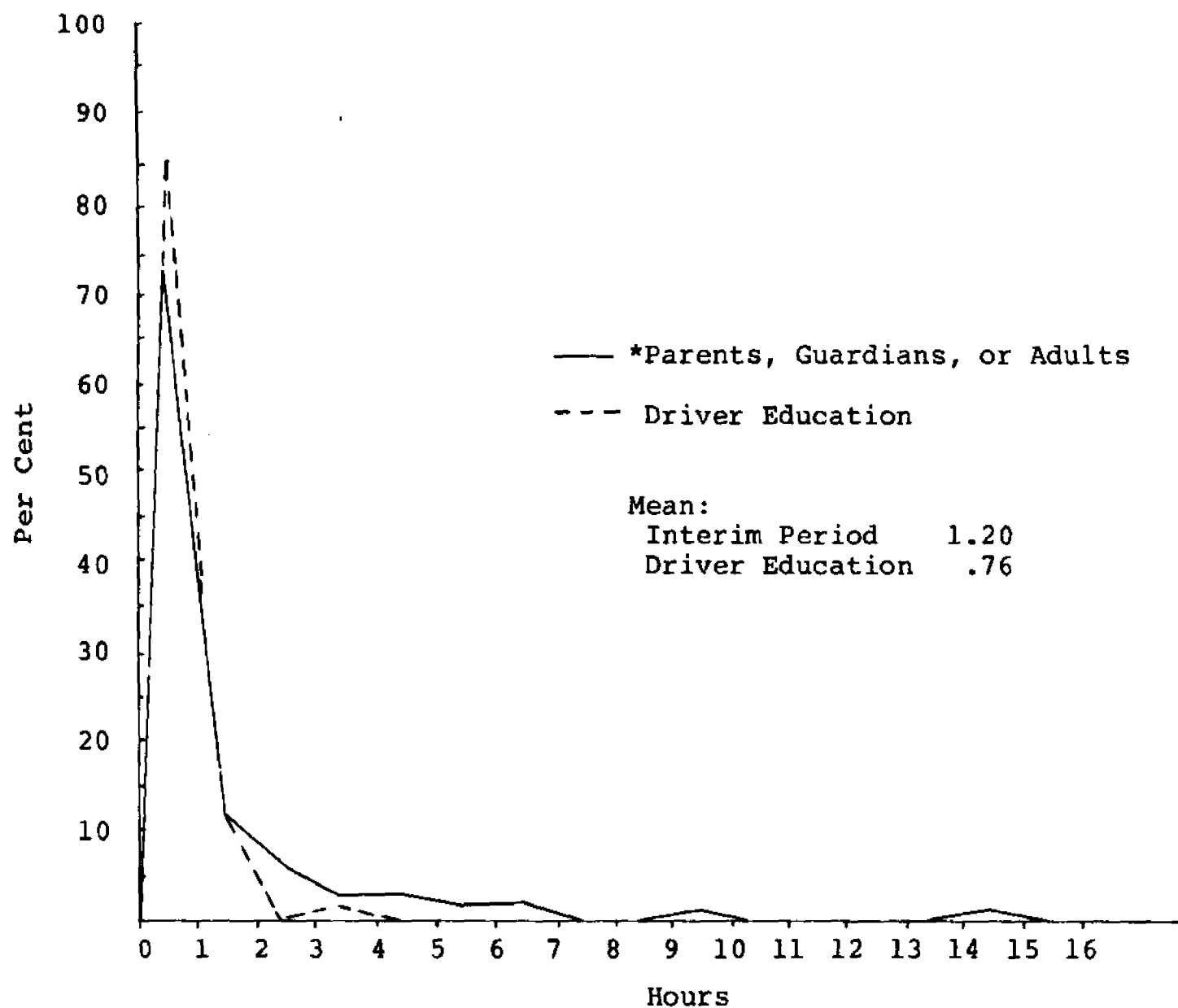
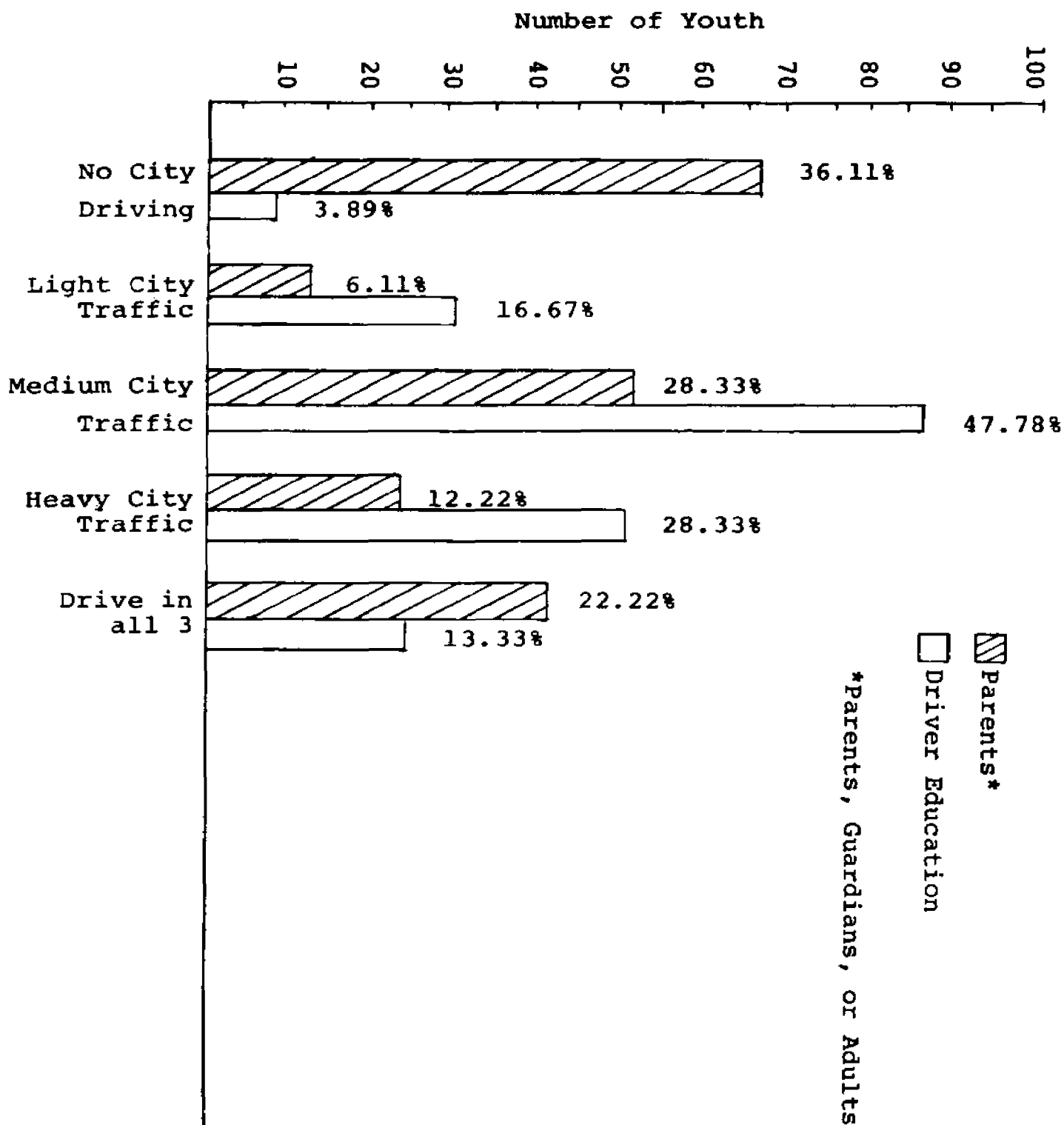


Figure 4.32.--Estimate of total time driving in business areas for youth with parents* as compared to driver education.

Presented in Figure 4.33 are the data relative to the types of business driving that the sample drove during the thirty-day period and during driver education. The data denoted:

1. For youth during the interim period, 6.11 per cent of them drove in business areas when traffic conditions were light.
2. Of those youth interviewed, 28.33 per cent reported that they drove in this type of area with traffic being medium.
3. Twelve and twenty-two hundreds per cent of the sample indicated they drove in business areas during the interim period in heavy traffic.
4. During the thirty-day period 22.22 per cent responded that they drove in this type of area when all three conditions existed.
5. The sample data revealed that while in driver education 16.67 per cent of the individuals drove in a business district when traffic was light.
6. Forty-seven and seventy-eight hundreds per cent of the interviewees drove in medium traffic while in driver education.
7. During driver education 28.33 per cent of the youth reported that they drove in business areas while traffic was heavy.



8. Thirteen and thirty-three hundreds per cent had driven in this area during driver education when each of these traffic conditions were present.

Represented in Figure 4.34 are the data pertaining to the driving youth did in downtown Lansing or Jackson during the interim and during driver education. The data obtained indicated:

1. For the thirty-day interim period, 45.56 per cent of the youth responded negatively to having had any driving experience in either location.
2. Forty-nine and forty-four hundreds per cent of the sample drove in downtown Lansing or Jackson 1-5 times during this interim period.
3. In the number of occurrences during this time from 6-10 occurrences, 3.33 per cent of the youth drove.
4. One and sixty-seven hundreds per cent of the sample denoted that they drove in one of these downtown locations 30 times during the interim period.
5. In driver education, 13.33 per cent of the sample lacked the experience of driving in downtown Lansing or Jackson.
6. The data indicated that no youth while in driver education drove in either of these locations more than 4 times.

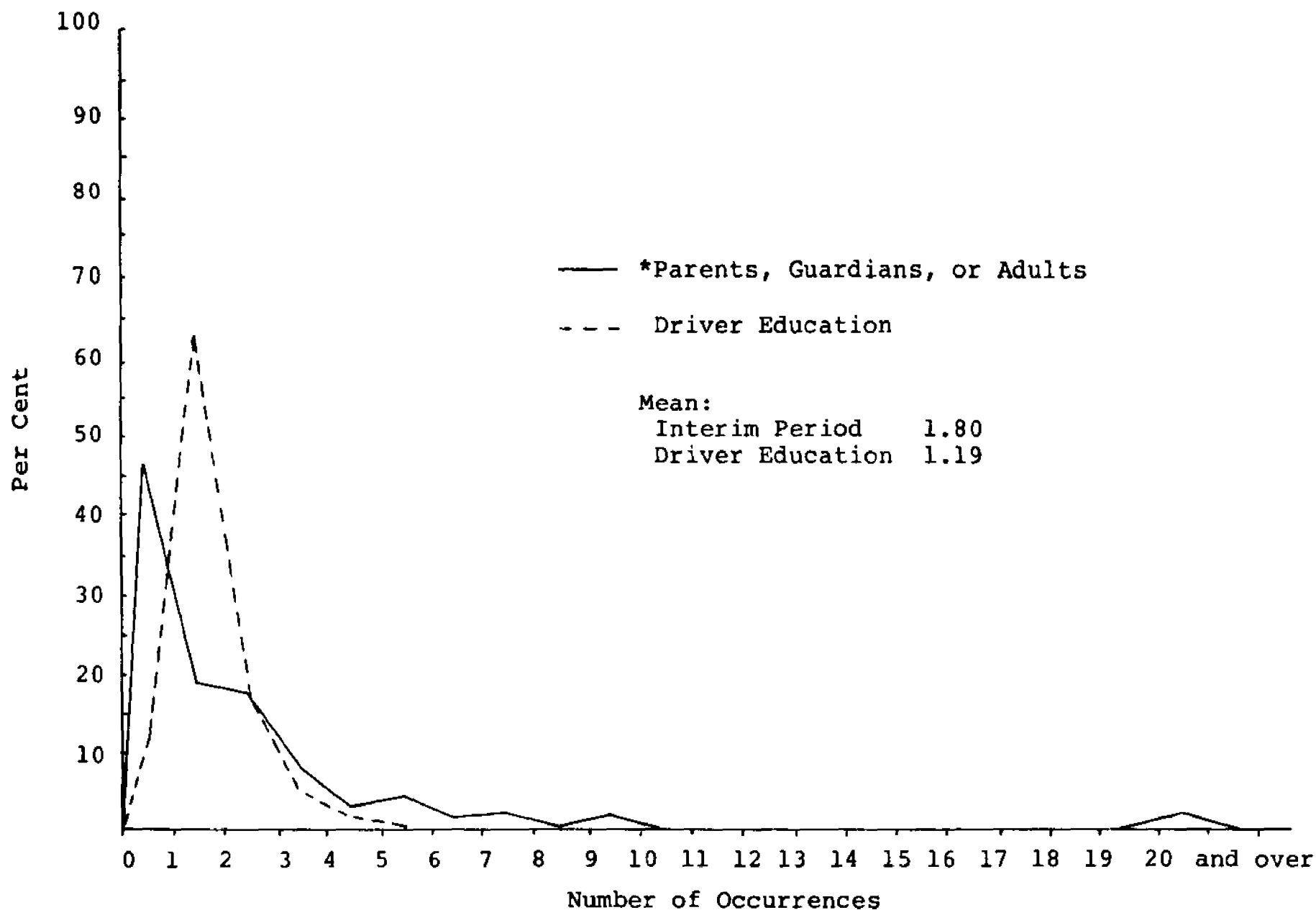


Figure 4.34.--Number of downtown driving occurrences with parents* for youth as compared to driver education.

7. The means for driving occurrences in downtown Lansing or Jackson were 1.80 for the interim time and 1.19 for driver education.

Figure 4.35 depicts the data pertaining to the number of driving occurrences the youth experienced in business areas when rainy weather conditions existed.

These data indicated:

1. During the interim period 87.22 per cent of the sample lacked experience driving in this type of area when it was raining.
2. Twelve and twenty-two hundreds per cent drove during this time in business areas while the weather was rainy 1-2 times.
3. Less than 1 per cent (.56) of the youth drove more than twice during this period.
4. While in driver education, 93.33 per cent of the individuals never received instruction with this adverse condition present in a business area.
5. Six and sixty-seven hundreds per cent of the sample stated they drove once during driver education in a business area when it was raining.
6. The means for driving occurrences in this type of area when it was raining were .21 for the thirty-day interim period and .07 for driver education.

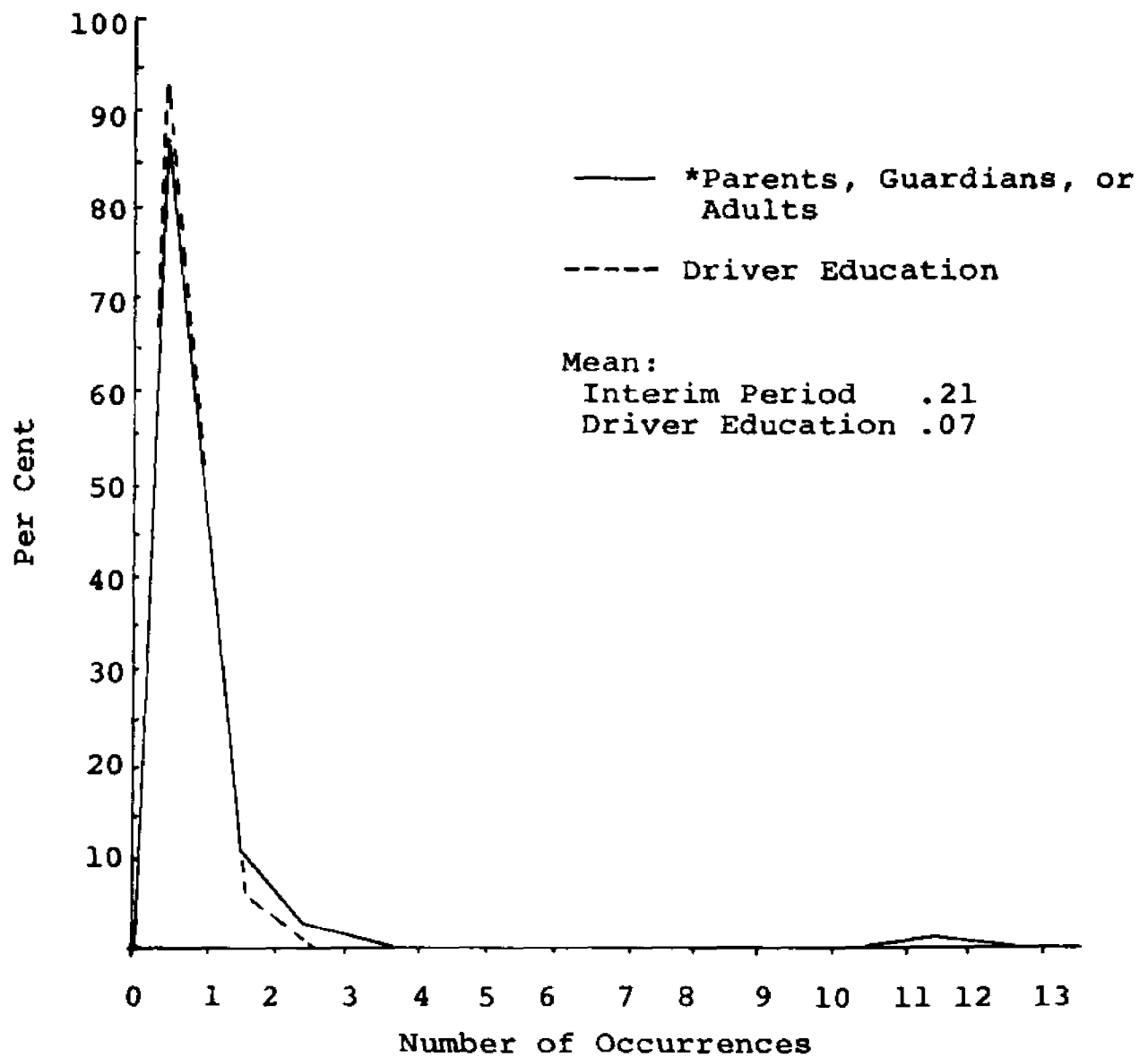


Figure 4.35.--Driving in business area while raining for youth with parents* as compared to driver education.

The data from the sample presented in Figure 4.36 concern the number of occurrences youth drove in this type of area when the weather was foggy. The data revealed:

1. For the interim period, 98.33 per cent of the youth responded negatively to having had any driving experience in a business area with fog present.
2. One and sixty-seven hundreds per cent designated they drove with this condition existing once.
3. In driver education, 98.89 per cent of the youth replied they had not received driving experience in a business area when it was foggy.
4. One and eleven hundreds per cent of the sample drove during driver education with this adverse condition present once.
5. The means for driving occurrences in business areas when fog was present were .02 for the interim period and .01 for driver education.

In Figure 4.37 are presented the data concerning the number of times youth drove in business area when darkness was present. The data obtained denoted:

1. During the interim period 86.67 per cent of the youth did not drive in this type of area while this condition existed.

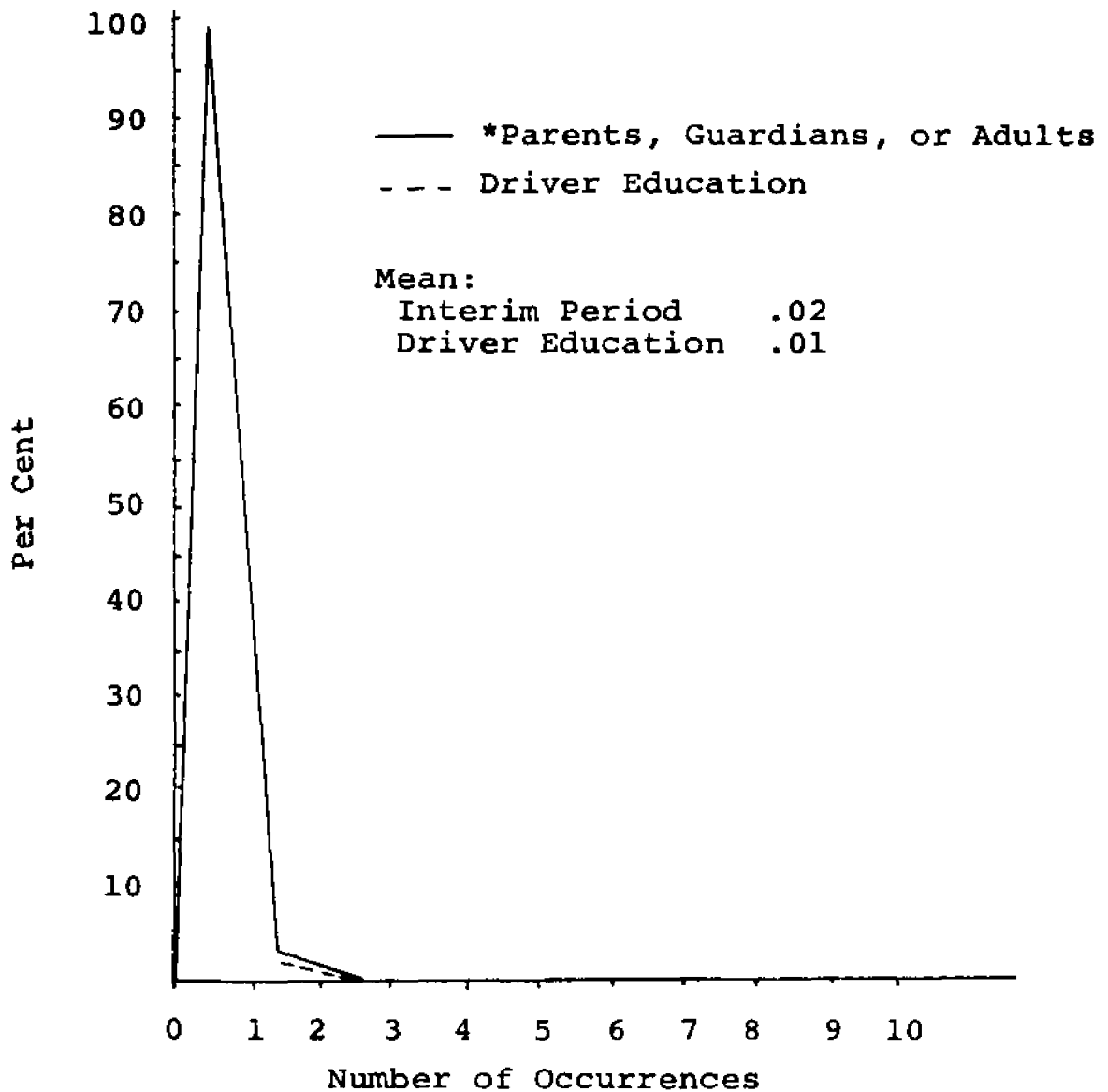


Figure 4.36.--Driving in business area while foggy for youth with parents* as compared to driver education.

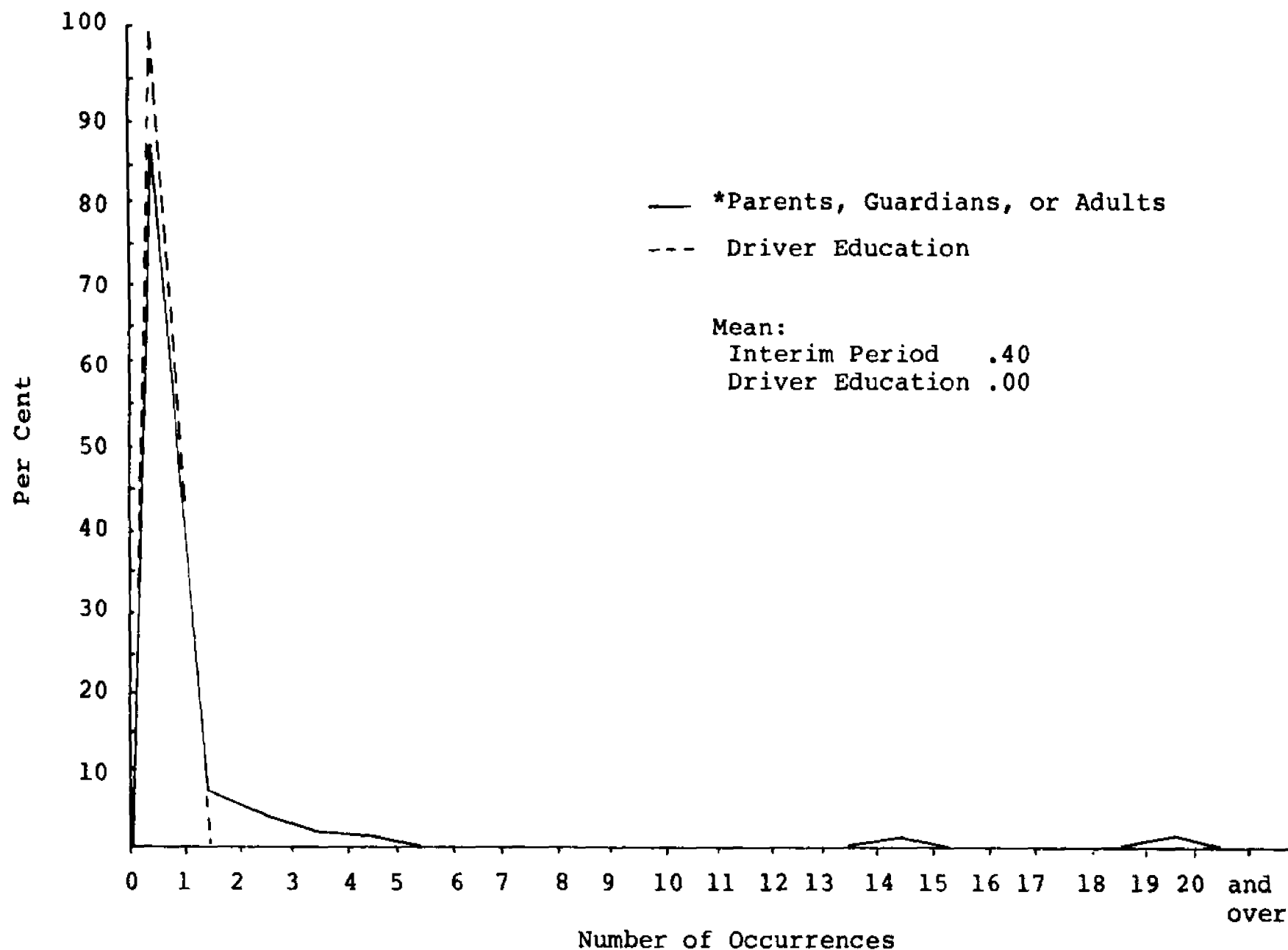


Figure 4.37.--Driving in a business area for youth while dark with a parent* as compared to driver education.

2. For the range of occurrences from 1-5, 12.22 per cent drove in a business area during the thirty-day interim period while it was dark.
3. One and twelve hundreds per cent of the sample drove more than 5 times with this condition present during this period.
4. Of those youth interviewed, no one reported that he had ever driven in a business area during driver education when darkness was present.
5. The mean for driving occurrences in this type of area with darkness present were .40 for the interim period; all youth lacked this experience in driver education.

Figure 4.38 depicts the data relative to the per cent of youth who preferred having a parent, guardian or licensed adult in the car with them during the thirty-day interim period while driving in a business area. These data revealed:

1. Thirty-nine and thirteen hundreds per cent of the youth stated they preferred having one of these individuals in the car with them.
2. For this same period, 33.91 per cent of the sample responded negatively.
3. Twenty-six and ninety-six hundreds per cent of the individuals had designated no preference.

In Table 4.33 are the data pertaining to the categories where youth obtained assistance in business areas while driving during the interim period.

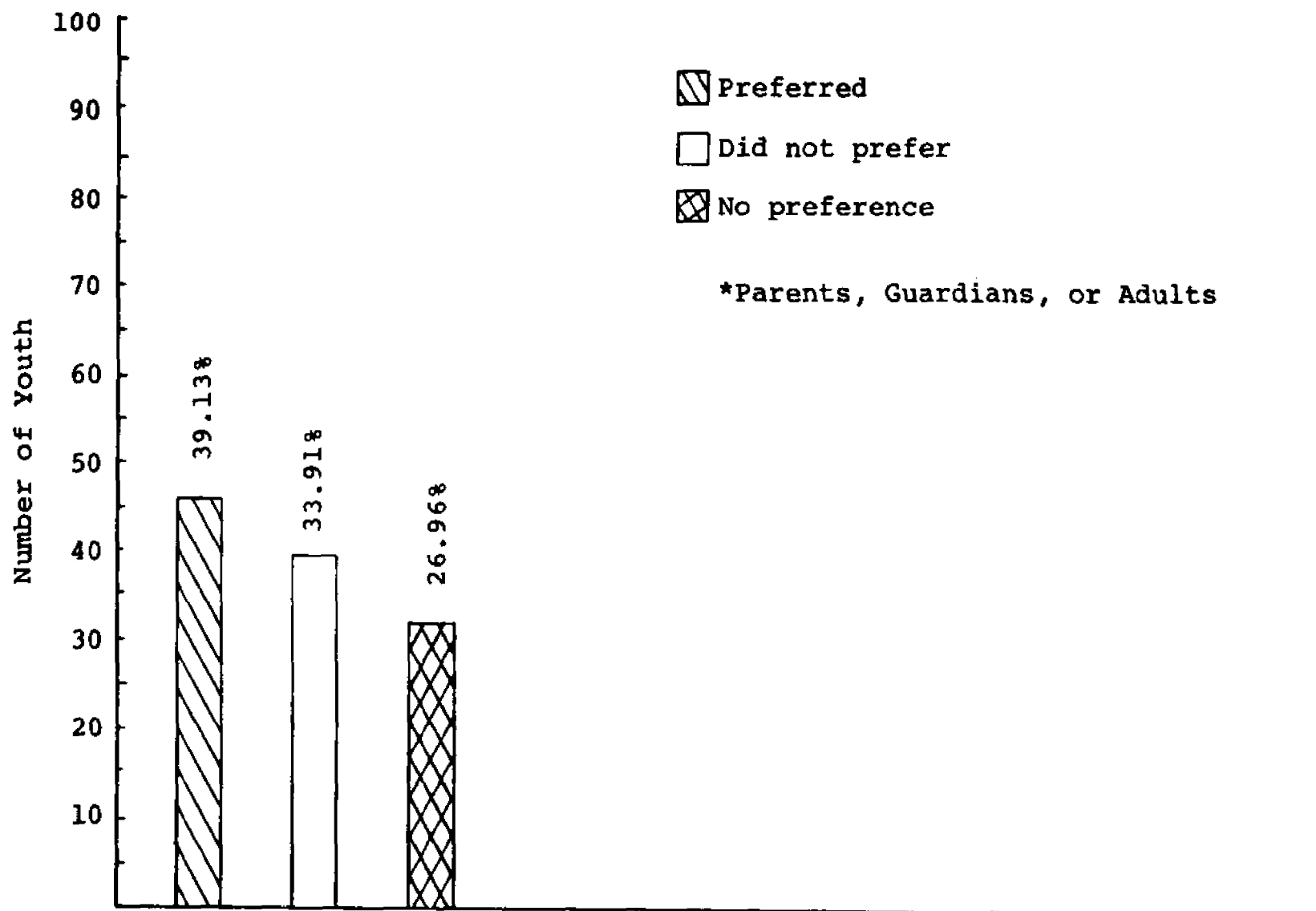


Figure 4.38.--Feelings of youth about having parents* in the car during interim period while driving in business areas.

TABLE 4.33.--Categories of Driving Experiences Where Youth Obtained Assistance in Business Areas During Interim Period.

Categories	Number of Youth From Sample*	Per cent of Sample*
General Driving Assistance	53	29.44
Lane Changing	17	9.44
Watching Traffic	17	9.44
Directions	5	2.78
Maintaining Safe Distance Between Cars	2	1.11
Total	94	52.21

*Sample of 180.

1. Fifty-two and twenty-one hundreds per cent of the youth obtained some type of assistance while driving in this kind of area.
2. Of those receiving help, 29.44 per cent indicated that the assistance was general in nature.
3. For lane changing, 9.44 per cent of the individuals indicated that they received help in doing this task.
4. Nine and forty-four hundreds per cent of the youth needed assistance watching traffic while driving in a business area.

Presented in Tables 4.34 and 4.35 are the data relative to the per cent of youth who experienced difficulty

TABLE 4.34.--Driving Experience Where Youth had Problems
While Driving in Business Areas During
Interim Period.

Thirty-Day Interim Period Problem Categories	Number of Youth From Sample*	Per cent of Sample*
Adjusting to Traffic	17	9.44
Lane Changing	13	7.22
Turning Corners	5	2.78
Parking (all types)	4	2.22
Total	39	21.66

*Sample of 180.

TABLE 4.35.--Driving Experience Where Youth had Problems
While Driving in Business Areas During
Driver Education.

Driver Education Problem Categories	Number of Youth From Sample*	Per cent of Sample*
Lane Changing	27	15.00
Turning	11	6.11
Getting Use to Heavy Traffic	9	5.00
Maintaining Proper Lane	5	2.78
Positioning Car in Advance	5	2.78
Seeing Traffic Signals	4	2.22
Parallel Parking	4	2.22
Other Cars	4	2.22
Following Directions	4	2.22
Total	73	40.55

*Sample of 180.

while driving in business areas during the thirty-day interim period and during driver education. These data showed:

1. Of those youth interviewed, 42.22 per cent declared that they had no problems while driving in this type of area during the interim period.
2. For the 21.66 per cent of the sample that had problems, 9.44 per cent had difficulty adjusting to traffic and 7.22 per cent experienced problems when lane changing.
3. During driver education 55.00 per cent indicated they had not experienced any difficulty driving in a business area.
4. Of those youth who had difficulty during driver education, 15.00 per cent had problems making lane changes.
5. Six and eleven hundredths per cent of the individuals had problems completing turns.
6. While in driver education, 5.00 per cent of the sample had difficulty getting used to heavy traffic in business areas.

Represented in Tables 4.36 and 4.37 are the data pertaining to the opinion of youth as to whether driver education instruction in business areas was adequate or not. The data indicated:

TABLE 4.36.--Response of Youth as to Why Driver Education Preparation in Business Areas was Adequate.

Response	Adequate Preparation	
	Number of Youth From Sample*	Per cent of Sample*
Enough Time	36	20.00
Instruction Good	20	11.11
No Reason	20	11.11
Other	2	1.11
Total	78	43.33

*Sample of 180.

TABLE 4.37.--Responses of Youth as to Why Driver Education Preparation in Business Areas was Not Adequate.

Response	Not Adequate Preparation	
	Number of Youth From Sample*	Per cent of Sample*
Not Enough Time	73	40.56
Should Drive in Heavier Traffic	14	7.78
Poor Instruction	2	1.11
Other	5	2.78
Total	94	52.23

*Sample of 180.

1. Of those youth interviewed, 43.33 per cent said the instruction was adequate.
2. For the youth who responded that driver education was sufficient, 20.00 per cent believed the amount of time spent in business areas driving was adequate.
3. Eleven and eleven hundredths per cent of the sample were of the opinion that the instruction by the teacher was good.
4. For the 52.23 per cent of the youth that were of the opinion that the instruction was not adequate, 40.56 per cent thought the time spent driving in business areas was too short.
5. Seven and seventy-eight hundredths per cent believed that they should have driven in heavier traffic.

Trips

This section is concerned with data relative to driving on a trip during the interim period. Presented are (1) the per cent of youth who drove on a trip; (2) number of interviewees that assisted in planning the trip; (3) the longest period of time the youth drove; (4) types of roadways driven on; (5) types of areas in which they drove; and (6) categories where youth had problems driving. These data are presented in Table 4.38 and Figures 4.39 through 4.41.

Presented in Figure 4.39 are data pertaining to per cent of youth who drove on a trip, assisted in planning a trip, and types of roads driven. The data secured from the sample indicated:

1. During this period of time 34.44 per cent of the youth received driving experience on a trip.
2. Ten and fifty-six hundreds per cent of the sample indicated that they assisted in planning a trip.
3. It was indicated from the data that 20.00 per cent of the youth drove on freeways.
4. Eleven and sixty-seven hundreds per cent of the sample drove on state highways while driving on a trip.
5. For rural road driving, 2.22 per cent drove on this type of road.
6. Eight and eighty-nine hundreds per cent of the youth drove on all three types of roadways while on a trip.

In Figure 4.40 are presented data concerning the longest period of time that youth drove on a trip. The data indicated:

1. Seventy-two and twenty-two hundreds per cent of the sample drove for less than an hour.
2. For this experience, 16.67 per cent revealed that they drove 1-2 hours.

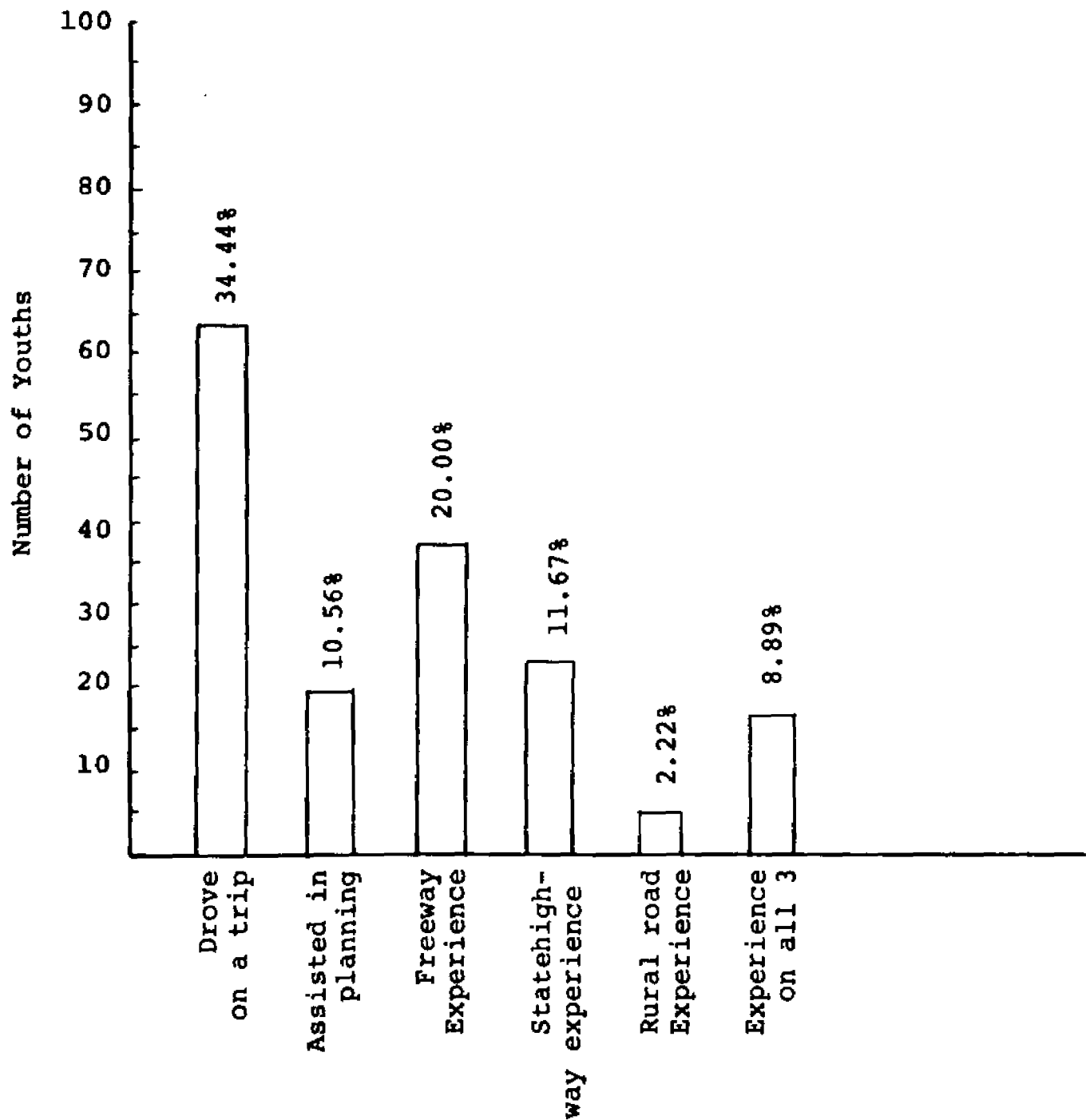


Figure 4.39.--Distribution of driving on a trip, assisting in planning a trip, and types of roads driven on while on a trip for youth in interim period.

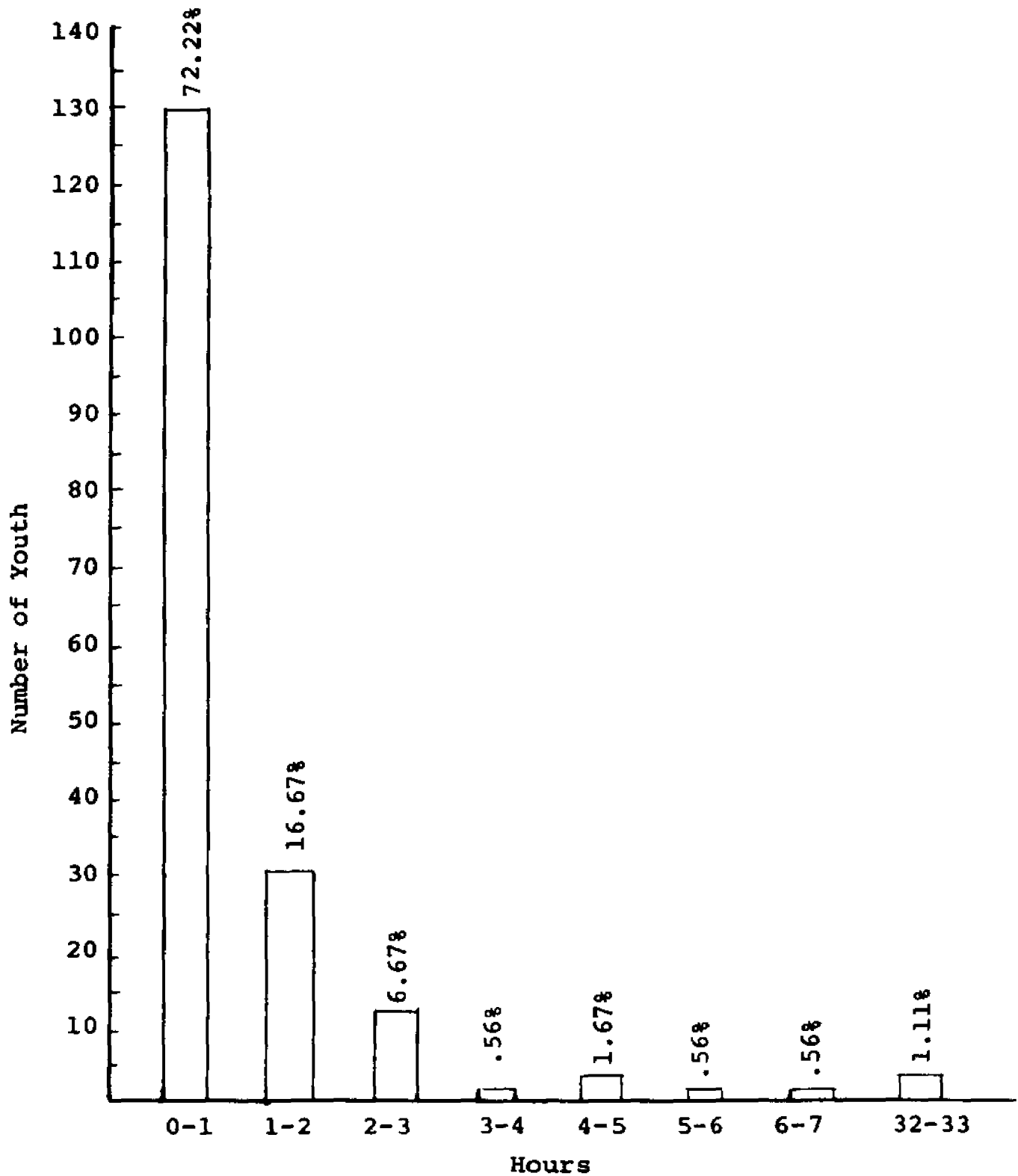


Figure 4.40.--Distribution of longest time driving on trips with parents for youth.

3. The data indicated that 6.67 per cent of the individuals drove for 2-3 hours.
4. Less than 1 per cent (.56) drove for a total of 33 hours while on a trip.

The data relative to the types of areas in which the youth drove while driving on a trip are presented in Figure 4.41. The data denoted:

1. Of those youth interviewed, 8.33 per cent stated they drove in a city while on a trip.
2. For driving in a residential area, 3.89 per cent responded.
3. Thirteen and eighty-nine hundreds per cent indicated they drove in rural areas while on a trip.
4. The data indicated that 14.44 per cent of the youth obtained driving experience in all three areas.

Presented in Table 4.38 are the data relative to the per cent of youth who experienced difficulty while driving on a trip. These data revealed:

1. For the 6.11 per cent of the youth who had problems, 2.22 per cent had difficulty passing other vehicles.
2. Two and twenty-two hundreds per cent indicated they got tired of driving.

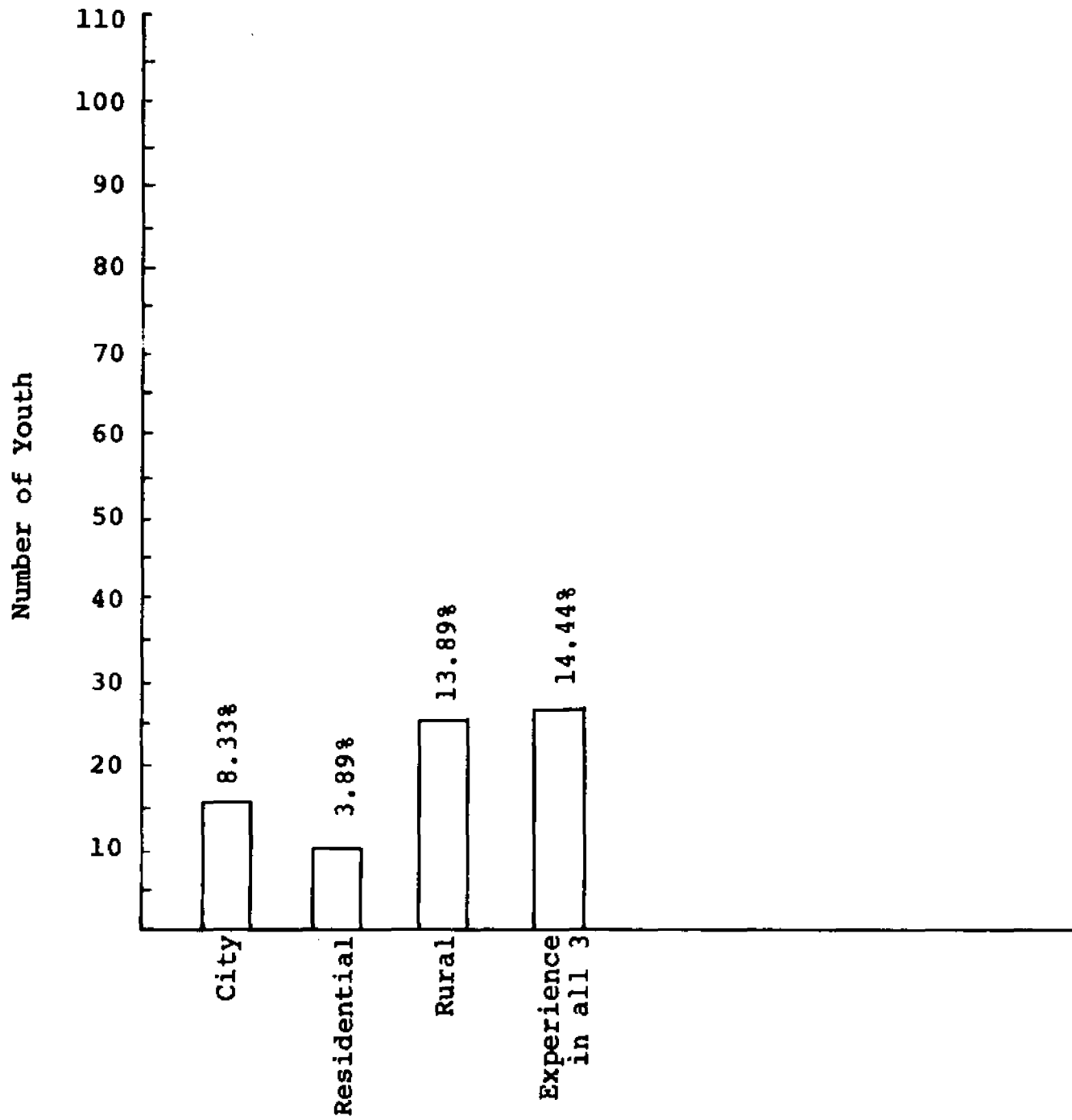


Figure 4.41.--Distribution of types of areas driven in while on a trip for youth.

TABLE 4.38.--Driving Experiences Where Youth Had Problems While Driving on a Trip.

Categories	Number of Youth From Sample*	Per cent of Sample*
Passing	4	2.22
Got Tired	4	2.22
Other	3	1.67
Total	11	6.11

*Sample of 180.

Attitude of Interviewee

Attention in this section is focused upon the attitude of the youth interviewed. Presented are (1) the per cent of youth who viewed the thirty-day period as profitable; (2) per cent of individuals that believed their parents were willing to let them drive; (3) views as to how the interim period could be made more meaningful; (4) per cent of the sample who thought the interim period should be continued, disbanded, or extended; and (5) the number of youth encouraged to drive as taught in driver education. These data are presented in Tables 4.39 through 4.46.

Presented in Tables 4.39 and 4.40 are the opinions of youth as to whether the thirty-day interim period was profitable or not. These data indicated:

TABLE 4.39.--Attitude of Youth as to Why Thirty-Day Interim Period was Profitable.

Response	Profitable Experience	
	Number of Youth From Sample*	Per cent of Sample*
Experienced Driver Can Correct Things Done Wrong	40	22.22
Provides Additional Supervised Experience	57	31.67
Not Enough Experience From Driver Education; This Provides More	20	11.11
Benefit From Adults' Experience	6	3.33
Assistance and Guidance	27	15.00
Builds Confidence of Parents in Youth	10	5.56
Total	160	88.89

*Sample of 180.

1. From those youth interviewed, 88.89 per cent believed this to be a profitable experience.
2. Of the 88.89 per cent who responded positively, 22.22 per cent of the sample were of the opinion that the experienced driver can correct things done wrong by the beginning driver.
3. Thirty-one and sixty-seven hundredths per cent thought it was a good idea to have additional

TABLE 4.40.--Attitude of Youth as to Why Thirty-Day Interim Period was Unprofitable.

Unprofitable Experience		
Response	Number of Youth From Sample*	Per cent of Sample*
Adults Drive Wrong	4	2.22
Youth Made Nervous	5	2.78
Adults Do Not Help	3	1.67
Ready to Drive After Completion of Driver Education	4	2.22
Total	16	8.89

*Sample of 180.

supervision after completion of driver education.

4. The data indicated that 11.11 per cent were of the opinion that driver education did not provide enough experience.
5. Fifteen per cent of the youth thought the interim period profitable because the adults provide assistance and guidance while learning to drive.
6. Eight and eighty-nine hundredths per cent of the youth believed the thirty-day interim period was an unprofitable experience.

In Table 4.41 are presented the data as to whether the youth thought their parents or guardians were willing to let them drive during this period of time. The data revealed:

1. Eighty-six and eleven hundredths per cent of the sample thought their parents or guardians were willing to let them drive.
2. For the 11.67 per cent of the youth who thought the parents or guardians were not, 5.56 per cent believed that the father did not want to drive with them and the mother was afraid.
3. Three and thirty-three hundredths per cent were of the opinion that this was true only at night.

The data pertaining to how the youth thought the thirty-day interim period could be made more meaningful are presented in Table 4.42. The data revealed:

1. Fifty-one and eleven hundredths per cent of the sample were of the opinion that the interim period could not be made more useful.
2. Of the 46.68 per cent who thought it could be, 18.89 per cent believed this could be accomplished by getting to drive more.
3. Sixteen and sixty-seven hundredths per cent of the youth thought that a driver education program for parents or guardians to explain

TABLE 4.41.--Reasons Why Parents* Were Not Willing to Let Youth Drive in Interim Period.

Response	Number of Youth From Sample**	Per cent of Sample**
Father Did Not Want to and Mother Afraid	10	5.56
Mother Did not Trust Him	3	1.67
Only During the Night	6	3.33
Father Willing, Mother Not	2	1.11
Total	21	11.67

*Parents, guardians or adults

**Sample of 180.

TABLE 4.42.--Responses of Youth As to How Interim Period Could be Made More Meaningful.

Response	Number of Youth From Sample*	Per cent of Sample*
Driver Education Program for Parents	30	16.67
Drive More Often	34	18.89
30 Hours of Driving Instead of 30 Days	3	1.67
Drive With Any Licensed Individual	4	2.22
Night Driving with Parents	10	5.56
Shorten Period	3	1.67
Total	84	46.68

*Sample of 180.

the purpose of the thirty-day interim period would help.

4. Of those individuals interviewed, 5.56 per cent believed the interim period could be improved if youth got to do night driving.

Represented in Tables 4.43 through 4.45 are the data relative to the thoughts of the youth as to whether the interim period should be continued, disbanded, or extended. These data indicated:

1. Seventy-seven and seventy-eight hundreds per cent of the youth believed that the thirty-day period should be continued.
2. Of the 77.78 per cent who thought it should be continued, 61.67 per cent were of the opinion that this was a long enough period.
3. Six and sixty-seven hundreds per cent of the youth thought the thirty-day period to be sufficient, if the parents or guardians let them drive.
4. Of the 6.12 per cent of the individuals who believed the interim period should be disbanded, 3.89 per cent thought this was too long a period.
5. Thirteen and eighty-nine hundreds per cent of the sample thought the period should be extended because youth need more supervised driving after they completed driver education.

TABLE 4.43.--Opinions of Youth Toward Continuing the Interim Period.

Opinion	Number of Youth From Sample*	Per cent of Sample*
30 Days Sufficient	111	61.67
Sufficient if You Get to Drive	12	6.67
Should be 30 Hours	5	2.78
Need Additional Experience	4	2.22
Other	8	4.44
Total	140	77.78

*Sample of 180.

TABLE 4.44.--Opinions of Youth Toward Disbanding the Interim Period.

Opinion	Number of Youth From Sample*	Per cent of Sample*
Too Long a Period	7	3.89
Length Should be Determined by Driver Education Teacher	1	.56
Other	3	1.67
Total	11	6.12

*Sample of 180.

TABLE 4.45.--Opinions of Youth Toward Extending the Interim Period.

Opinion	Number of Youth From Sample*	Per cent of Sample*
Need More Driving Under Supervision	25	13.89
Total	25	13.89

*Sample of 180.

In Table 4.46 are presented the data concerning the number of youth who were encouraged to drive during the interim period in the same manner as they were taught in driver education. The data revealed:

1. Of those youth interviewed, 67.78 per cent of the sample were encouraged by the parents or guardians to drive as taught in driver education.
2. For the 30.00 per cent who were not encouraged to do so, 6.11 per cent indicated they had to change from left foot braking to right foot.
3. Four and forty-four hundredths per cent said the adult with whom they drove did not want them making head checks.
4. The data revealed that 3.89 per cent of the sample had to change from using the hand over hand steering technique.

TABLE 4.46.--Driver Education Driving Features Taught to Youth Changed by Parents* During Interim Period.

Features Changed	Number of Youth From Sample**	Per cent of Sample**
Left Foot Braking	11	6.11
Hand Over Hand Steering	7	3.89
Head Checks	8	4.44
Stopping at Stop Sign	4	2.22
Shifting Procedure	3	1.67
Turning into Closest Lane	4	2.22
Right Foot Braking	3	1.67
Other	14	7.78
Total	54	30.00

*Parents, guardians or adults.

**Sample of 180.

Statistical Analysis

Correlations were made to determine if there was a relationship between the driving experience obtained in the interim period and the educational level of the parents or guardians, the age of the youth, and the driving experience received in driver education.

An analysis of variance was computed to determine the nature of relationship between the interim period driving experience and the number of cars in the family, the parents or guardians that the youth lived with, year in school, and older siblings. Because of the small number of youth who received letter grades in driver education, it

was determined that statistical treatment of the relationship between driving experience in the interim period with this item would provide a test with very low power.

Correlations

Presented in Table 4.47 are the correlations between the driving experience during the interim period and (1) the educational level of the parents or guardians; (2) age of the youth; and (3) driving experience for driver education. This table shows:

1. There is a relationship between the educational level of the parents or guardians and the driving experience the youth attained during the interim period at the .05 level of significance.
2. Driving experience procured in the thirty-day interim period and age of the youth are not related at the designated level of significance. Table 4.47 shows that in this case the computed r value was extremely small and did not approach the required value of r to be significant.
3. There is no relationship at the .05 level of significance between the driving experience acquired during the interim period and the driving experience obtained while in driver education. As indicated in Table 4.47, the computed correlation was extremely small.

TABLE 4.47.--Correlation Coefficient (r) Values Between Driving Experience for Interim Period and Educational Level of Parents, Age of the Youth, and Experience in Driver Education.

	B	C	D
A	.1735*	.0861	.0581

A Driving experience for interim period.

B Educational level of parents or guardians.

C Age of the youth.

D Driving experience for driver education.

*Significant at .05 level of confidence of .1458 required for significance.

Analysis of Variance

Presented in this section are the data concerning the relationships between the driving experience during the interim period and (1) the number of cars in the family the youth had access to drive; (2) the parent or guardian that the youth lives with; (3) the year in school in which driver education was completed; (4) having an older sibling driving who had successfully completed driver education; and (5) the sex of the youth. These data are presented in Table 4.48 through 4.53.

Data in Table 4.48 indicated:

1. There is a relationship between the number of cars in the family that the youth had access to drive and the driving experience

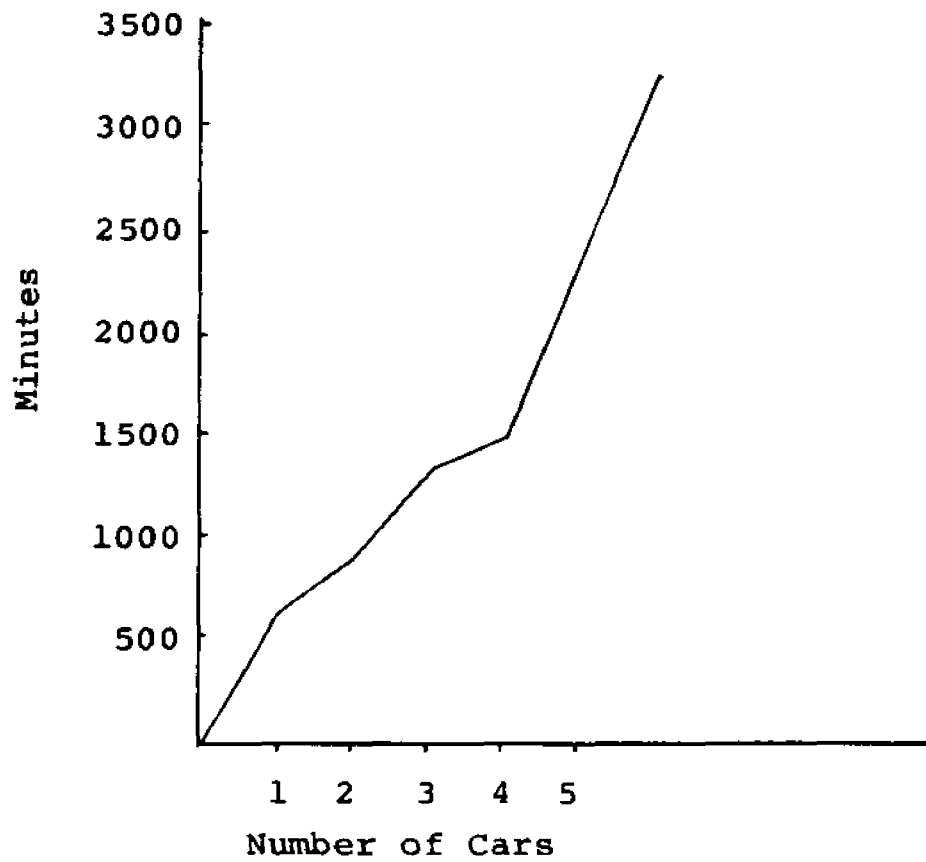


Table 4.48.--Relationship between driving experience obtained in interim period and number of cars available for youth to drive.

the youth received in the interim period at the .05 level of significance. This relationship, as shown in Table 4.49, is approximately linear.

2. Driving experience acquired in the interim period and the parent or guardian that the youth lives with are not related at the .05 level of significance as the computed F did not approach what was necessary for a relationship to exist. These data are presented in Table 4.50.
3. At the .05 level of significance, no relationship existed between the year in school in which driver education was completed by the youth and the driving experience he attained in the interim time. The data are designated in Table 4.51.
4. Data concerning an analysis of variance in regard to the relationship of having an older sibling driving who had successfully completed driver education and the experience driving the youth acquired in the interim period is presented in Table 4.52. As indicated, none was present at the .05 level of significance.
5. There is no relationship as denoted in Table 4.53, between the sex of the youth and

TABLE 4.49.--Analysis of Variance for Driving Experience Received in Interim Period and Number of Cars Available for Youth to Drive in this Period.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	F Statistic
Between Categories	19759052.79931641	4	4939763.19982910	3.71216*
Within Categories	232872344.97265625	175	1330699.11413574	
Total	252631397.77343750	179		

*F of 2.41 required for significance at .05 level.

TABLE 4.50.--Analysis of Variance for Driving Experience Received in Interim Period and Adult Youth Lived with During Interim Time.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	F Statistic
Between Categories	3080770.11212158	4	770192.52803040	0.54011*
Within Categories	249550627.66015625	175		
Total	252631397.77343750	179	1426003.58660889	

*F of 2.41 required for significance at .05 level.

TABLE 4.51.--Analysis of Variance for Driving Experience in Interim Period and Year in School for Youth.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	F Statistic
Between Categories	1206509.28500366	3	402169.76166534	0.839*
Within Categories	251424888.48828125	176	1428550.50277710	
Total	252631397.77343750	179	1428550.50277710	

*F of 2.64 requested for significance at .05 level.

TABLE 4.52.--Analysis of Variance for Driving Experience Received in Interim Period and Older Sibling of a Youth.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	F Statistic
Between Categories	939966.21087646	1	939966.21087646	0.66476*
Within Categories	251691431.56250000	178	1413996.80651855	
Total	252631397.77343750	179		

*F of 3.87 required for significance at .05 level.

TABLE 4.53.--Analysis of Variance for Driving Experience Received in Interim Period and Sex of the Youth.

Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	F Statistic
Between Categories	548240.18052673	1	548240.18052673	0.38712*
Within Categories	252083157.59375000	178	1416197.51455688	
Total	252631397.77343750	179		

*F of 3.87 required for significance at .05 level.

driving experience procured in the interim period at the .05 level of significance.

Summary

In this chapter the analysis of the data was presented. The chapter was divided into three sections: pertinent information from interviewee, descriptive analysis of driving experience during the interim period and in driver education, and a statistical analysis of relationships. Tables and figures were presented in each of the respective sections to help depict the data.

In the following chapter the summary, major findings, conclusions, recommendations, recommendations for further study and a discussion may be found.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

In the preceding chapter the analysis of the data was presented. In this chapter may be found: (1) a summary of the study; (2) major findings; (3) conclusions based upon the data; (4) recommendations; (5) recommendations for further study; and (6) a discussion.

Summary

Statement of the Problem

It was the author's purpose in this study to determine the types and amount of experience beginning youthful drivers received under parental direction. Specifically, in Ingham County, Michigan, what were the experiences during the thirty-day period of time from the date of obtaining a validated driver education certificate or a temporary instruction permit to the time at which the youth can apply for a driver's license.

Methods, Techniques and Data Used

A population of 1949 Ingham County public high school students was defined as the population of interest.

A random sample of 200 students was selected to provide the data. One hundred and eighty students were ultimately interviewed.

The first step in the study was contacting the administration of the respective school systems to explain the purpose of the research and to gain permission to conduct the project in the high schools.

The high school administrations provided the names of the in-school youth who had successfully completed driver education during the summer of 1971. From this information a list of all students was compiled and a random sample was drawn.

An interview questionnaire was developed to gather the data. No more than three attempts were made to contact the interviewees. Interviews were conducted only with those students that willingly participated and in those high schools receptive to the study. No student chosen for the study expressed a desire not to be interviewed; however, one high school principal specified he did not want the school involved.

The data were analyzed statistically to determine the relationships among the variables being tested. The Pearson Product Moment and the analysis of variance were the tests employed and the level of significance was set in .05.

A descriptive analysis of the data was also made for pertinent information about the interviewee, types and amount of driving experience secured in both the interim period and in driver education, and the attitude of the youth toward the thirty-day interim period.

The Major Findings

The following summary of the major findings is presented:

1. Only 22.22 per cent of the parents or guardians of the youth had explained to them by the driver education teacher what they could do during the thirty-day interim period to help their children develop into a more competent driver.
2. The data indicated that 31.11 per cent of the youth were of the opinion that having an older sibling driving in the family made a difference in the driving experience procured in the interim period. An analysis of variance test to measure if a statistical relationship existed at the .05 level of significance was conducted. This test of relationship did not yield a significant result.
3. The data revealed that youth tended to drive more with the mother than the father. This is supported by the fact that only 20.00 per

cent of the sample drove 0-10 per cent of the time with the mother, while 32.22 per cent of the individuals revealed they drove with the father. Sixteen and sixty-seven hundreds per cent of the youth indicated that they drove 71-80 per cent of the time with the mother; however, only 3.33 per cent drove this much with the father. For those youth driving almost totally with the mother or father, 16.67 per cent drove with the mother 91-100 per cent of the time; and 13.33 per cent drove with the father.

4. The data denoted that 97.22 per cent of the youth did not drive with an adult other than the parents or guardians. Less than 1 per cent (.56) did 20 per cent of their driving with another adult. Of the youth who drove 50 per cent with an adult, 1.11 per cent of the sample responded, and .56 per cent drove 90 per cent of the time during the interim period with an adult other than the parents or guardians.
5. Of those youth interviewed, 1.67 per cent did not have a validated driver education certificate or a temporary instruction permit which would license them to drive during the interim period.

6. Most youth drove in residential areas during the interim period. Only 6.67 per cent of these individuals did not acquire any experience in this area; while 30.00 per cent lacked exposure on freeways; 17.22 per cent on state highways; 15.00 per cent on rural roads; and 34.44 per cent of the youth did not attain any experience driving in a business area.
7. The data indicated that during driver education more youth had exposure driving on freeways than other experiences. One and eleven hundredths per cent of the sample specified that they did not drive on this type of roadway during driver education; however, 19.44 per cent of the youth revealed they did not secure road experience on state highways; 13.89 per cent responded negatively to having driven on rural roads; 8.33 per cent did not drive in residential areas; and 3.89 per cent did not acquire any driving instruction in business areas.
8. The data denoted that 55.55 per cent of the youth drove on a freeway from 1-5 times, and 51.11 per cent of the sample logged less than an hour's total driving time on such a roadway for the thirty days. Corresponding these

items in driver education, 97.22 per cent of the youth had driven on a freeway less than 5 times, and 70.45 per cent had accumulated a total time of less than an hour driving on this type of roadway.

9. On state highways, 50.00 per cent of the youth indicated that the total occurrences they accumulated were from 1-5, and 51.11 had logged less than an hour's driving during the interim period. While in driver education, 72.78 per cent of the youth drove on a state highway 1-5 times, and 80.56 per cent totaled less than an hour's driving.
10. For rural roads the data disclosed that 31.11 per cent drove on this type of roadway from 1-5 times, and 41.11 per cent drove for less than an hour during the interim period. In driver education for the same events, 79.44 per cent were in the scope of 1-5 occurrences, and 61.67 per cent drove less than an hour.
11. During the interim period for residential areas, 38.88 per cent were in the range of 1-5 occurrences, and 46.67 per cent accumulated less than an hour's driving. For driver education, 84.45 per cent had 1-5 occurrences driving in this area, and 83.39 per cent logged less than an hour's driving.

12. Eighty-three and thirty-three hundreds per cent of the youth responded that they drove less than 5 times in a business area, and 72.22 per cent did not total more than an hour's driving time in this area for the interim period. The experiences in driver education in relation to this concept indicate that all youth drove less than 5 times, and 85.00 per cent totaled less than an hour's driving.
13. The data obtained from the interviewees showed that they had very little experience driving in either driver education or in the interim period when an adverse weather condition was present. On freeways for the interim period, 72.22 per cent of the sample responded negatively to having had any experience driving in the rain; and in driver education, 83.33 per cent lacked this experience. On state highways, 65.56 per cent had not obtained any driving experience when rain was present during the interim period, and in driver education, 84.44 per cent had not attained this experience. For those individuals driving on rural roads during the interim period, 58.89 per cent never drove when rain was present; and in driver education, 93.33

per cent; in residential areas during the thirty days, 47.78 per cent lacked this experience; and in driver education, 83.33 per cent. In business areas during this interim period, 87.22 per cent had not acquired any driving experience when the weather was rainy; and 93.33 per cent in driver education.

14. While driving when darkness was present in the interim period, 69.44 per cent were not permitted to drive on freeways; 52.78 per cent responded negatively to having driven on state highways; 51.67 per cent for rural roads; 46.11 per cent stated they lacked this experience for residential areas; and 86.67 per cent of the youth did not drive in business areas. For driver education, 99.44 per cent received no driving instruction on a freeway when it was dark; 98.89 per cent lacked this experience on state highways; 98.89 per cent on rural roads; and no student received any behind-the-wheel instruction in residential areas or in business areas.
15. Data obtained from the sample revealed that in regard to the behind-the-wheel instruction as being adequate or not, 33.71 per cent of the youth indicated they did not believe the instruction for freeway driving was adequate; 23.45 per cent responded negatively about the

instruction on state highways; 11.11 per cent denoted the same response for rural roads; 15.76 per cent did not believe the driver education instruction was adequate for residential areas; and 54.65 per cent of the youth thought the instruction insufficient for business areas.

16. There is a positive relationship between the number of cars in the family the youth had access to drive and the driving experience secured during the interim period. As the number of cars available to drive increased, the amount of driving experience obtained during this period also increased.
17. There is a relationship between the educational level of the parents or guardians and the driving experience secured in the interim period. The higher the educational level of the parents or guardians, the more experience youth obtained during the period.
18. Driving experience acquired in the interim period and the parent or guardian the youth lives with are not related.
19. No relationship existed between the year in school in which driver education was completed and the driving experience secured in the interim period.

20. There is no relationship between the sex of the youth and the driving experience received in this period.
21. From the data about the interim period, it was denoted that 88.89 per cent of the youth thought it was a profitable experience; 86.11 per cent of the youth specified that their parents or guardians were willing to let them drive; 46.67 per cent of the interviewees believed the interim period could be made more meaningful. Seventy-seven and seventy-eight hundreds per cent were of the opinion that the thirty-day interim period should be continued; and 67.78 per cent of the youth revealed they were encouraged to drive during this period as they were taught in driver education.
22. The data indicated that those youth who did not have experience driving on a certain roadway or area attributed this to the parents' or guardians' seeing no necessity for such experience.
23. It was revealed from the data that the youth who did not obtain experience in the areas of interest of this study while in driver education stated the teacher did not provide such experience or had no time for it.

Conclusions

The following are the conclusions based upon the findings of the study:

1. The data indicate that only a limited number of youth had the opportunity to drive when darkness existed or when an adverse weather condition was present. The majority of the youth did not receive any driving experience when any of these conditions were present in either the thirty-day interim period or in driver education.
2. Youth are obtaining only a limited amount of driving experience on freeways. Fifty-one and eleven hundredths per cent of the sample drove a total of less than one hour during the interim period, and close to 70.45 per cent drove less than an hour in driver education. The means for this were 3.67 hours during the interim period and 1.67 hours for driver education.
3. The data revealed that most youth receive only limited driving experience on state highways. Fifty-one and eleven hundredths per cent of the youth logged less than an hour's driving during the interim period. While in driver education, 80.65 per cent of the youth totaled less than an hour's driving. The mean for the

interim time was 3.30 hours and it was .82 hours for driver education.

4. The thirty-day interim period did not supplement the driver education experiences sufficiently in rural areas where most fatal accidents occur. In driver education, 61.67 per cent of the youth drove less than an hour total. While during the interim period, 41.11 per cent of the youth drove for less than an hour. The means for the interim period and for driver education were 4.23 hours and .89 hours respectively.
5. Youth only procure a limited amount of driving in urban areas where nonfatal injury accidents and property damage accidents are the highest. While in driver education, 85.00 per cent of the sample did not total more than an hour's driving time. Seventy-two and twenty-two hundreds per cent of the youth drove for less than an hour during the interim period. The mean for the thirty-day interim period was 1.20 hours and it was .76 hours for driver education.
6. The interim period or driver education is not providing adequate driving experience in residential areas at night; and, as shown in other research, this is when youth drive most

often after obtaining a driver's license. Forty-six and eleven hundreds per cent of the youth never drove in a residential area at night. Of those youth interviewed, no one reported having had the experience during driver education. The mean for driving occurrences in this area when darkness was present in the interim period was 2.65.

7. Data indicated that a lack of communication existed between the parents and the driver education programs as to what the parents could do to help the youth improve their driving during the interim period.
8. Driver education teachers should explain to the parents or guardians why they instruct the students to drive as they do. Thirty per cent of the youth indicated that their parents or guardians had them change some aspect of their driving from what was taught in driver education.
9. The concept that male youth would obtain more experience driving during the interim period than female youth could not be supported by the data secured from this study. The data indicated that both received approximately the same experience.

10. There is no relationship between having an older sibling in the family and the driving experience obtained during the interim period. However, 31.11 per cent of the youth revealed that they were of the opinion that having an older sibling driving influenced the amount of driving they attained.
11. The data indicated that as the number of cars available for the youth to drive increases, the experience the youth obtains during the interim period increases. This relationship is approximately linear in nature.
12. The data indicated that youth whose parents or guardians are highly educated secure more driving experience than those youth whose parents or guardians have less education.
13. The data from the sample revealed that the majority of the youth thought the concept of the thirty-day interim period desirable. It was their opinion that driver education does not prepare one sufficiently to drive by himself after the course, and this period helps build on the experience received in driver education.
14. Approximately 17 per cent of the youth were of the opinion that if their parents would have attended a program explaining the purpose

of the interim period they would have secured more driving experience.

Recommendations

On the basis of the findings from this investigation, it is recommended that:

1. Closer liason between the State Department of Education and local school districts be established so the intent of the thirty-day interim period is fully understood.
2. A program explaining the purpose of the thirty-day interim period to parents or guardians be conducted by driver education instructors.
3. Communications between the driver education teacher and the parents or guardians be developed explaining what is being taught.
4. The State Department of Education encourage the inclusion of night driving in high school driver education curriculums.
5. Driver education instruction provide youth experience in driving cars with different equipment and of various sizes.
6. The Department of State and Department of Education cooperatively develop a log to be kept by youth during the interim period.

7. Driver education include instruction for each individual student on the various types of roadways.
8. An amendment to the present driver education law be legislated that would enable youth to drive with their parents or guardians while the youth are enrolled in driver education.
9. Colleges and universities in the state that are involved in the preparation of driver education teachers explain the purpose of the thirty-day interim period in the driver education teacher preparation programs.

Recommendations for Further Research

From the data obtained from this study, it is recommended that:

1. A more intensive study be conducted concentrating on youth of inner-city areas.
2. A study be done at the end of the first semester of the school year to determine the types and amount of driving experience youth obtain in the winter months during the thirty-day interim period.
3. Research be carried on to evaluate the effectiveness of a program which explains to parents or guardians the purpose of the interim period.

4. Similar research be conducted in other areas of the state to determine if youth are receiving the same experiences during the interim period as indicated in this study.
5. A comprehensive study of the interim period be conducted on a statewide basis which employs the same variables, and in addition would include the identification of driving experience youth obtain from rural and urban areas, and that the thirty-day interim period throughout the year be sampled.

Discussion

It is the opinion of the writer that a contributing factor in the types and amounts of experience youth receive during the interim period is when parents have cars different from those used in driver education. It is felt, for example, that parents who have standard shift cars are reluctant to let the youth drive in some circumstances.

Clearwater and Emery, in their research concerning teenage drivers in Michigan, specified that youth are involved in a high number of accidents in residential areas at night. Emery pointed to the fact that the youth in Lansing do most of their driving at night within a 10 mile radius from the center of Lansing.⁴² Clearwater emphasized that driver education instruction include

⁴²Emery, loc. cit.

driving at night after analyzing traffic accidents of sixteen-year olds in Michigan.⁴³ As this study indicates, youth secure virtually no supervised instruction in the areas where they experience the greatest problems in driving.

As revealed from the data, the educational level of the parents has an influence on the driving experience youth obtain in the interim period; the higher the educational level of the parents, the more experience the youth procure. For those high schools located in lower socio-economic areas a concentrated effort should be made by the driver education instructors to reach parents and explain to them the importance of the youth receiving this additional experience.

To the writer there appear to be some schools that have students enrolled in the classroom and taking the behind-the-wheel phase of the course at some later date. The classroom and the behind-the-wheel experience should compliment one another, just as in biology, chemistry or any other course having among its activities a laboratory experience which is taught concurrently with the classroom.

Geographical location of some school districts is a limiting factor in itself, as to the types of driving experiences youth will be able to obtain in a two phase program. Students living in rural areas may not have the

⁴³Clearwater, loc. cit.

opportunity to drive on all types of roadways or in all types of areas, such as heavy urban traffic. Therefore, simulation should be employed more extensively in rural areas to provide these experiences for students.

Driver education programs should capitalize on parents more extensively. A program for parents should be conducted at the beginning of each driver education class explaining the purpose of the class and informing the parents why certain driving techniques are being taught.

With the enactment of proper legislation, parents could be used as paraprofessionals to supplement the driving experience youth obtain while enrolled in driver education. This would permit the driver education teacher to introduce driving on a certain type of roadway, and then where youth are having difficulty the parents could give additional instruction to correct the problems.

The writer believes that all parents should have to attend a program explaining to them what they should do during the interim period to improve the driving skills of their youth. This would be a means by which the philosophy of the thirty-day interim period could be explained to them. Also, it provides a time when driver education instructors would be able to explain to parents the problems their youth exhibited while in driver education.

Presently, with the number of youth that are receiving limited driving experience during the thirty-day interim period, a driver's license permitting youth to drive under all circumstances should not be issued at the end of the interim time. The writer is of the opinion that a license permitting youth to drive only under certain instances should be given after the completion of the thirty-day period. This license would allow the youth to drive only by himself or an adult during prescribed hours.

The instructors of driver education courses should take a closer look at this study to find out what types and amount of experience youth get during the interim period. In those areas where it is found that youth secure limited driving experience or no experience driving, then driver education instructors will have to be sure that driving experience in these areas be provided.

BIBLIOGRAPHY

BIBLIOGRAPHY

Books

- Aaron, James E. and Marland K. Strasser. Driver and Traffic Safety Education. New York: The MacMillan Company, 1970.
- Armstrong, Sidney J. Introduction to Statistical Analysis and Inference for Psychology and Education. New York: John Wiley & Sons, Inc., 1967.
- Backstrom, Charles H. and Gerald D. Hursh. Survey Research. Evanston: Northwestern University Press, 1963.
- Baker, J. Stannard and William Stebbins, Jr. Dictionary of Highway Traffic. Evanston: Traffic Institute of Northwestern University, 1960.
- Bingham, Walter V. and Bruce V. Moore. How to Interview. New York: Harper and Brothers, 1959.
- Hyman, Herbert H. Interviewing in Social Research. Chicago: University of Chicago Press, 1954.
- Kerlinger, Fred N. Foundations of Behavioral Research. Chicago: Holt, Reinhart and Winston, Inc., 1968.
- New York University. Driver Education and Traffic Safety. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1967.
- Schlesinger, Lawrence E. Is There A Teen-Age Driver In Your House? New York: The New American Library, 1967.
- Spence, Janet T. and others. Elementary Statistics. New York: Appleton-Century-Crofts, Inc., 1968.
- Thorndike, Robert L. and Elizabeth Hagan. Measurement and Evaluation in Psychology and Education. New York: John Wiley & Sons, Inc., 1961.

Publications of the Government, Learned
Societies, and Other Organizations

Automotive Safety Foundation. Extended Driver Education Laboratory Enrichment Project. Washington: Automotive Safety Foundation, 1969.

George Washington University. Driver Behavior Research Project. Washington: Department of Psychology, 1965.

Human Resources Research Organization. Driver Education Analysis Final Report, Vol. I. Alexandria: Human Resources Organization, 1970.

Indiana Department of State Police. Indiana Highway Deaths. Indiana: Department of State Police, 1967.

Insurance Institute for Highway Safety. Driver Behavior. Washington: Insurance Institute for Highway Safety, 1968.

Michigan Department of Education. Driver Education Programming. Michigan: Department of Education, 1970.

Ohio Department of Education. Curriculum Guide for Driver and Traffic Safety Education. Columbus: Driver Education Section, 1971.

Michigan Department of State Police. Michigan Traffic Accident Digest: 1970. Michigan: Department of State Police, 1971.

Michigan Department of State Police. Michigan Traffic Accident Facts: 1970. Michigan: Department of State Police, 1971.

Michigan Department of State. Michigan Vehicle Code: 1968. Michigan: Department of State, 1968.

Michigan State University. Legislation Needed for Improving Driver Education in Michigan. East Lansing: Highway Traffic Safety Center, 1966.

Michigan State University. Statements of Position: Recommendations of the Special Commission on Traffic Safety. East Lansing: Highway Traffic Safety Center, 1964.

National Commission on Safety Education. History of Driver Education in the United States. Washington: National Education Association, 1966.

National Commission on Safety Education. Policies and Practices for Driver and Traffic Safety Education. Washington: National Education Association, 1964.

National Safety Council. Accident Facts: 1971. Chicago: National Safety Council, 1971.

National Transportation Safety Board. Special Study, Youth and Traffic Safety Education. Washington: Government Printing Office, 1971.

Terry, Robert. Extended Driver Instruction Enrichment Plan. California State Department of Education, Bureau of Elementary and Secondary Education. Sacramento: State Department of Education, 1970.

Travelers Research Center, Inc. Traffic Safety. Hartford: The Travelers Research Center, Inc., 1967.

Washington State Patrol. Summary of Traffic Accidents Involving Teen-Age Drivers: 1969. Washington: Washington State Patrol, 1970.

Periodicals

"Can Driving Be Taught," Time, Vol. 90:49 (November 3, 1967), 60.

Cushman, William D. and Ray F. Wahl. "Student Driver." American Education, Vol. 4:9-11 (May, 1968), 9-12.

Damron, C. Frazier and Clifford Andreoli. "Youthful Drivers as Perceived by Teenagers and Their Parents." Traffic Digest and Review (January, 1967), 8-13.

Klein, David. "A reappraisal of the Violation and Accident Data on Teen-age Drivers." Traffic Quarterly, XX (October, 1966), 502-510.

Komaiko, Jean R. "How to Make Teen Drivers Good Drivers." Parents Magazine, Vol. 35:52-3 (September, 1960), 53, 128-132.

Lamm, Michael. "Driver Education: Are We Getting Our Money's Worth?" Parents Magazine, Vol. 45:48-9 (July, 1970), 48-49, 70.

Licht, Kenneth F. "What Do School People Think About Driver Education?" Traffic Safety, Vol. 71, No. 7 (July, 1971), 14-16, 39.

MacDowell, Gene. "Teacher-Parent Cooperation Means Quality Traffic Safety Education." California Journal of Traffic Safety Education, XVII (March, 1970), 21.

Scott, Arlene. "6 Ways to Help Your Teenager Become a Better Driver." Parents Magazine, Vol. 52-3 (February, 1969), 52-53.

Seals, Thomas A. "San Diego Takes a New Look." Safety, Vol. VI, No. 3 (May-June, 1970), 16-18.

Silvernale, Leslie R. and Malcolm D. Whale. "Does Driver Education Go Far Enough?" Traffic Safety, Vol. 69, No. 9 (September, 1969), 10-12, 40, 42.

"Statistically Speaking." Senior Scholastic, Vol. 89:30 (November 18, 1966), 30.

Smith, Donald. "A Supplemental Program in Traffic Safety Education." Journal of Traffic Safety Education, Vol. XVII, No. 3 (March, 1971), 35.

"Teaching Kids to Drive." Changing Times, Vol. 14:33-4 (January, 1960), 33-34.

"The Young Killers." Time, Vol. 90:46 (August 25, 1967), 46.

Essays and Articles

McFarland, Ross A. and Roland C. Moore. "Youth and the Automobile." Accident Research. Edited by William Haddon, Jr., Edward A. Suchman and David Klein. New York: Harper and Row, 1964, pp. 465-477.

Unpublished Materials

Clearwater, Harvey Elting. "A Study of Certain Factors in the Fatal Traffic Accidents of 16 Year Old Drivers in Michigan, 1967-1969." Unpublished Doctoral Dissertation, Michigan State University, 1970.

Emery, Sister Marie Therese, O.P. "A Study of Certain Factors Related to the Patterns of Driving, Accident and Violation Rates of 436, 17 and 18-year-old Licensed Drivers from Two Lansing Catholic Schools." Unpublished Doctoral Dissertation, Michigan State University, 1969.

APPENDICES

APPENDIX A

LETTER TO ADMINISTRATORS

DEPARTMENT OF EDUCATION

Lansing, Michigan 48902



JOHN W. PORTER
Superintendent of
Public Instruction

May 3, 1971

STATE BOARD OF EDUCATION
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GOV. WILLIAM G. MILLIKEN
Ex Officio

Dear School Administrator:

Attempts are being made in the State of Michigan to identify reasons why teenage drivers are involved in a disproportionate number of traffic accidents. It is to this goal that your assistance is being requested.

Mr. James W. Counts, currently a doctoral candidate in the College of Education, Michigan State University, is trying to find out the types and amount of driving experience youth receive from the time that they obtain a validated driver education certificate to the time in which they may apply for a driver's license.

The responses gathered hopefully will provide necessary data to eventually improve upon driver education as currently offered and to eliminate difficult problem areas now faced by teenage drivers.

Mr. Counts will be contacting the high school principal for an interview regarding this study after May 17, 1971.

Your assistance in Mr. Counts' behalf will be greatly appreciated.

Sincerely,


Ferris N. Crawford
Associate Superintendent
for Educational Services

FNC:smg

APPENDIX B

LETTER TO PARENTS

CONTINUING EDUCATION SERVICE • HIGHWAY TRAFFIC SAFETY CENTER • KELLOGG CENTER

September 13, 1971

Dear Parent:

Attempts are being made in the state of Michigan to identify reasons why teenage drivers are involved in a disproportionate number of traffic accidents. It is to this goal that the assistance of your child is being requested.

Mr. James W. Counts, currently a doctoral candidate in the College of Education, Michigan State University, is trying to find out the types and amount of driving experience youth receive from the time that they obtain a valid Driver Education Certificate to the time in which they may apply for a drivers license.

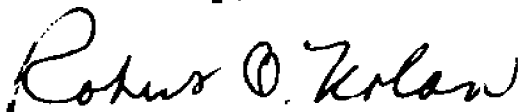
Mr. Counts requests your permission to interview your son or daughter to obtain the information cited in the paragraph above. Should you choose not to have your child participate in this project, kindly notify the person in charge of driver education at Okemos High School.

May I assure you that the information provided is for research purposes only and will in no way influence your child's opportunity to obtain a drivers license.

The responses gathered hopefully will provide necessary data to eventually improve upon driver education as currently offered and to eliminate difficult problem areas now faced by teenage drivers.

Your assistance in Mr. Counts behalf will be greatly appreciated.

Sincerely,



Robert O. Nolan, Professor
Highway Traffic Safety Center

RON:sbs

APPENDIX C

PROBABILITY SAMPLE

PROBABILITY SAMPLE

High School	Total Population	Estimated Percentage	Sample Percent
Dansville	80	8	8
East Lansing	136	14	11
Holt	205	21	22
Lansing:			
Eastern	131	13	20
Everett	200	20	15
Sexton	157	16	15
Leslie	151	15	18
Okemos	180	18	22
Stockbridge	137	14	14
Waverly	346	35	33
Weberville	66	7	8
Williamston	148	15	14
Total	1949	196	200

APPENDIX D

INTERVIEW GUIDE QUESTIONNAIRE

INTERVIEW GUIDE QUESTIONNAIRE

No. _____

Code _____

M () F ()

Introduction: Hello, I am Jim Counts, a graduate student at Michigan State University. I am currently doing a research project concerned with the driving experience of individuals of your age. Specifically, I am interested in the driving experience you received during the 30 day period occurring from the time which you received a validated driver education certificate to the time which you could apply for a driver's license.

You have been randomly selected as one of two hundred students from high schools in Ingham County. I would appreciate it if I could have 20 to 30 minutes of your time. The information obtained during this interview will be used for educational purposes only.

Specific Objectives

I. Information about the parents, guardians and family.

1. How many years of school have your parents or guardians completed?

Mother

Father

2. Did your driver education teacher explain to your parents what they could do to help you improve your driving during this period?

Yes () No ()

If yes, explain

3. Do you have any brothers or sisters who have completed driver education and now have a driver's license?

Yes () No ()

If no, move to II

- a. Did having an older brother or sister driving have an effect on the experience you received during this time?

Yes () No ()

Explain

II. Information regarding interviewee.

1. Do you live with:

- ☐ both parents ☐ mother only ☐ father only
☐ guardians, male and female
☐ male only ☐ female only

2. How many cars were available in your family to use during this period of time?

0 1 2 3 4 5 _____

3. Did this car differ greatly from the one used in driver education?

Yes () No ()

a. If it did differ, in what manner, and did this create any special problems?

4. How old were you when you completed driver education?

_____years _____months

5. What grade are you currently in?

9 10 11 12

6. What letter grade did you get in driver education?

A B C D

7. What percent of your driving did you do with:

mother____% father____% guardian-female____%
guardian-male____% other adult____%

a. Why do you think_____was more willing
to drive with you than_____?

III. To determine amount of driving experience and types of experience.

1. During the time you could drive only with a parent, guardian, or adult, were you permitted to drive on:

A. Freeways?

Yes () No ()

If no, explain and then move to B

1. Total occurrences: 1 2 3 4 5 6 _____

2. Estimate of total time in hours: _____

3. Did you drive on the freeway
via the entrance ramp? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

4. Did you drive off the freeway
via the exit ramp? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

5. Did you drive on the freeway while it was raining? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

6. Did you drive on the freeway at any time when it was foggy? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

7. Did you drive on the freeway when it was dark? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

8. Were you allowed to drive the maximum speed of the freeway? Yes () No ()

If no, explain

9. How did you feel about having a parent, guardian, or adult in the car while you were driving in this situation?

10. Was this individual able to provide you any assistance in this situation?

Yes () No ()

Explain

11. Did you have any particular problems
while driving on the freeway? Yes () No ()

If yes, explain

12. What was the longest period of time that you
spent driving on the freeway without a break?

_____ hours

Interview Guide Questionnaire - 8

7. How did you feel about having a parent, guardian, or adult in the car while you were driving in this situation?

8. Was this individual able to provide you any assistance in this situation?

Yes () No ()

Explain

9. Did you have any particular problems while driving on a state highway?

Yes () No ()

If yes, explain

C. Rural roads (gravel, clay, narrow blacktop, etc.)?

Yes () No ()

If no, explain and
then move to D

1. Total occurrences: 1 2 3 4 5 6 _____
2. Estimate of time in hours: _____
3. Did it rain while you were driving on a rural road? Yes () No ()
 - a. Number of occurrences: 1 2 3 4 5 6 _____
4. Did you do any driving on a rural road when it was foggy? Yes () No ()
 - a. Number of occurrences: 1 2 3 4 5 6 _____
5. Did you do any driving when it was dark out on a rural road? Yes () No ()
 - a. Number of occurrences: 1 2 3 4 5 6 _____
6. How did you feel about having a parent, guardian, or adult in the car on this type of road?

7. Was this individual able to provide you any assistance in this situation?

Yes () No ()

Explain

8. Did you have any particular problems while driving on a rural road?

Yes () No ()

If yes, explain

7. Was this individual able to provide you any assistance in this situation?

Yes () No ()

Explain

8. Did you have any particular problems while driving in this area?

Yes () No ()

If yes, explain

E. Business?

Yes () No ()

If no, explain and then move to F

1. Total occurrences: 1 2 3 4 5 6 _____
2. Estimate of total time in hours: _____
3. Would you classify this as:

 () light city traffic
 () medium city traffic
 () heavy city traffic
 () all the above
4. Did you ever drive in downtown
 Lansing or Jackson? Yes () No ()

 a. Number of occurrences: 1 2 3 4 5 6 _____
5. Did it rain when you were
 driving in this type of area? Yes () No ()

 a. Number of occurrences: 1 2 3 4 5 6 _____
6. Did you do any driving in this
 type of area when it was foggy? Yes () No ()

 a. Number of occurrences: 1 2 3 4 5 6 _____
7. Did you do any driving in this
 type of area when it was dark? Yes () No ()

 a. Number of occurrences: 1 2 3 4 5 6 _____

8. How did you feel about having a parent, guardian, or adult in the car while driving in this area?

9. Was this individual able to provide you any assistance in this situation?

Yes () No ()

Explain

10. Did you have any particular problems while driving in this area?

Yes () No ()

If yes, explain

F. Did you do any driving on a trip? Yes () No ()

If no, move to IV

1. Did you help plan the trip? Yes () No ()

If yes, explain

2. What was the longest period of time for which you drove?

3. What were the types of roads on which you drove while on the trip?

() freeways () rural roads
() state highways () all of these

4. What were the types of areas in which you drove while on the trip?

() city () rural
() residential () all of these

5. Did you have any particular problems while driving on the trip?

Yes () No ()

If yes, explain

IV. Information about driver education experience.

1. Did your driver education program have:

- ☐ range
- ☐ simulation
- ☐ behind-the-wheel
- ☐ all the above

2. During driver education, did you get to drive on:

A-4 Freeways?

Yes () No ()

If no, move to B-4

1. Total occurrences: 1 2 3 4 5 6 _____

2. Estimate of total time in hours: _____

3. Were you allowed to drive
the maximum speed limit?

Yes () No ()

If no, explain

4. How many times did you get on the freeway via
the entrance ramp?

a. Number of occurrences: 1 2 3 4 5 6 _____

5. How many times did you get off the freeway via
the exit ramp?

a. Number of occurrences: 1 2 3 4 5 6 _____

6. Did you ever drive on the freeway while it was
raining?

Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

7. Did you ever drive on the freeway while it was foggy? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

8. Did you ever drive on the freeway when it was dark? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

9. What was the longest period you drove on the freeway without a break?

10. Did you encounter any particular problems when driving on the freeway?

Yes () No ()

If yes, explain

11. Do you feel that the experience you received during driver education on freeway driving was adequate?

Yes () No ()

Explain

B-4 State Highways?

Yes () No ()

If no, move to C-4

1. Total occurrences: 1 2 3 4 5 6 _____

2. Estimate of total time in hours: _____

3. Were you allowed to drive the
maximum speed on this type of highway?

Yes () No ()

If no, explain

4. Did you ever drive on a state
highway while it was raining? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

5. Did you drive on a state
highway while it was foggy? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

6. Did you drive on a state
highway when it was dark? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

7. Did you ever encounter any special problems while driving on a state highway?

Yes () No ()

If yes, explain

8. Do you feel that the experience you received during driver education on state highways was adequate?

Yes () No ()

Explain

C-4 Rural roads (gravel, clay, narrow blacktop, etc.)?

Yes () No ()

If no, move to D-4

1. Total occurrences: 1 2 3 4 5 6 _____

2. Estimate of total time in hours: _____

3. Did you drive on a rural road while it was raining? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

4. Did you drive on a rural road when it was foggy? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

5. Did you drive on a rural road when it was dark? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

6. Did you encounter any special problems while driving on a rural road? Yes () No ()

If yes, explain

7. Do you feel that the experience you received during driver education on rural roads was adequate?

Yes () No ()

Explain

D-4 Residential?

Yes () No ()

If no, move to E-4

1. Total occurrences: 1 2 3 4 5 6 _____

2. Estimate of total time in hours: _____

3. Did you drive in this type of area while it was raining? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

4. Did you drive in this type of area when it was foggy? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

5. Did you drive in this type of area while it was dark? Yes () No ()

a. Number of occurrences: 1 2 3 4 5 6 _____

6. Did you encounter any problems while driving in this type of area? Yes () No ()

If yes, explain

7. Do you feel that the experience you received during driver education in residential areas was adequate? Yes () No ()

Explain

E-4 Business?

Yes () No ()

If no, move to V

1. Total occurrences: 1 2 3 4 5 6 _____
2. Estimate of total time in hours: _____
3. Would you classify this as:
 - () light city traffic
 - () medium city traffic
 - () heavy city traffic
 - () all the above
4. Did you ever drive in downtown Lansing or Jackson? Yes () No ()
 - a. Number of occurrences: 1 2 3 4 5 6 _____
5. Did you do any driving in this type of area while it was raining? Yes () No ()
 - a. Number of occurrences: 1 2 3 4 5 6 _____
6. Did you do any driving in this type of area when it was foggy? Yes () No ()
 - a. Number of occurrences: 1 2 3 4 5 6 _____
7. Did you do any driving in this type of area when it was dark? Yes () No ()
 - a. Number of occurrences: 1 2 3 4 5 6 _____

8. Did you encounter any problems while driving in this area?

Yes () No ()

If yes, explain

9. Do you feel that the experience you received during driver education in business areas was adequate?

Yes () No ()

Explain

V. Attitude of interviewee.

1. Do you feel it is profitable having parents, guardians, or adults in the car during this period of time?

Yes () No ()

Explain

2. Do you feel your parents, guardians, or adults were willing to let you drive?

Yes () No ()

Explain

3. Do you think this period of time could be made more meaningful?

Yes () No ()

Explain

4. Do you think this period should be continued, disbanded or extended?

Yes () No ()

Explain

5. Did the people with whom you drove encourage you to drive the way you were taught in driver education?

Yes () No ()

Explain