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CONCLUSIONS:
(Cont.)

the Army population as a whole is above the critical levels on the psychophysical tests. Medical examinations upon entrance into the Army tend to eliminate the mentally and physically unfit.

4. The conditions of the road test do not offer valid criteria for judging the discrimination of the glare vision and recovery or night vision tests. If the men were tested on driving at night these tests might show significant relationships to road test rating.
5. For men with previous experience the road test is probably the best practical measure of driving ability available. There is still room for improvement in this test, however. The final rating should probably be some combination of weighted objective items and an overall estimate by the examiner. The ratings should be precisely defined. Those items which are non-discriminating might well be omitted and others of as objective a nature as possible, and of greater capacity for differentiating "good" and "poor" drivers should be substituted for these items.

Part of the road test should be given at night in order to have a measure of night driving ability.

In general, improvements in the road test should aim towards greater objectivity and better sampling of the performances which indicate degree of driving ability.

6. The results of this study indicate that some entirely new approach to the problem of selecting inexperienced men with driving aptitude is in order. A study of the learning progress of a group of inexperienced driver trainees might be one approach to consider. First of all, however, the whole problem of selecting Army Truck Drivers should be clearly defined. Since the requirement rate for truck drivers is greater than the occurrence rate new men will have to be trained. Attention should be centered on the development of psychophysical tests for the selection of inexperienced men to be given training. A reliable road test based on a job analysis of army truck driving should be developed for use in selecting from civilian truck drivers and from men given special training those suitable for army truck operation.
7. Another question, quite apart from the selection of truck drivers, has been considered in this study. In conjunction with the Night Vision Test opportunity was offered to test the hypothesis that night vision is affected by eating sugar. The results of this study do not support the hypothesis. The difference in mean test scores of those who ate sugar before the test and of those who did not, is not significant.

PROCEDURE:

Data from Fort Knox data sheets were coded for machine tabulation. Machine sorts were obtained as follows:

1. Road Test Rating vs. each other variable (Immediate failures originally included in rating 5 were differentiated from other failures by coding as 6, 7, 8 according to grounds for immediate failure.)
2. Road Test Rating vs. separate items on road test.
3. Turning corners vs. psychophysical tests and civilian accidents.
4. Backing to Platform vs. psychophysical tests and civilian accidents.
5. Parking vs. psychophysical tests and civilian accidents.
6. Steering vs. " " " " "
7. Civilian accidents vs. all variables except Road Test Items, color, type license, type vehicle, Army license, Army accidents.
8. Road Test vs. Brake Time, Vigilance Steering, and Simple Steering for drivers with 7.5 years or more driving experience and annual mileage of 14,500 miles or more.
9. Civilian Driving Experience vs. age.

From these sorts the following statistics were obtained.

1. Biserial correlations, standard error of biserial r - continuous variables.
2. Tetrachoric correlations - dichotomous variables.
3. Percentages of each category of discontinuous variables receiving each road test rating.
4. Partial correlation - road test rating and age, partialing out experience.

RESULTS AND INTERPRETATIONS:

1. Comparison of Fort Knox and Fort Bragg results. (See Table I)
The correlations between road test ratings and the other variables were generally much lower at Fort Knox than at Fort Bragg. There are several factors which might account for this:

RESULTS AND
INTERPRETATIONS:
(Continued)

- (a) The road tests at Fort Knox and Fort Bragg were not identical. The Fort Knox test might have been more difficult either in actual performances required or in physical conditions of the course.
- (b) The rating scales for the road tests at Fort Knox and Fort Bragg were not identical. Fort Knox used a five-point scale while Fort Bragg used a four-point scale. The ratings at Fort Knox, with the exception of "5" which means failure, have not been defined, as far as we know, on any basis other than rank order. At Fort Bragg the ratings were defined as follows: Z-failure, Y-failure with recommendation for further training, X-satisfactory, W-exceptional.
- (c) The statistical treatment of the data from Fort Knox and of those from Fort Bragg may not have produced comparable results. From the Fort Knox data biserial correlations from widespread classes were obtained, grouping 1 and 2 against 4 and 5. From the Fort Bragg data biserial correlations from the total distribution were obtained, grouping W, X, and Y against Z.
- (d) Immediate failures (6, 7, and 8) were eliminated from the analysis of Fort Knox data while they were included in the Fort Bragg.

The effects of these different groupings and statistical methods were studied for two variables. The table below gives the results of this procedure.

Comparison of Correlations by Different Grouping Methods
Fort Knox Driver Tests

	Fort Bragg Study	Fort Knox Rating Groupings				Pearson r
		(1+2) vs. (4+5)	(1+2+3) vs. (4+5)	(1+2+3+4) vs. (5+6+7+8)*	(1+2+3+4) vs. (5+6+7)	
Civilian Driving Experience	.57	.134	.152	.359	.14	.30
Annual Mileage	.44	.137	.118	.26	.15	.20

*Immediate failures were differentiated from other failures (5) on basis of grounds for failure. 6=accident, 7=dangerous action or reckless driving, 8= inexperienced.

RESULTS AND
INTERPRETATIONS:
(Continued)

The elimination of inexperienced men (8) does make a big difference in the correlations. But the correlation grouping (1+2+3+4) vs (5+6+7+8) is still markedly lower than the Fort Bragg "r", altho the grouping and method are those most comparable to the Fort Bragg. Probably a combination of all these factors has produced the differences in the results at Fort Knox and Fort Bragg.

The variable which was most highly related to road test rating at Fort Knox was the total number of unsatisfactory items on the road test. Here the r_{pis} was $-.832$, while at Fort Bragg it was $-.278$. Omitting ^{dis} immediate failures who might have had just one unsatisfactory rating (grounds for failure) should have raised the correlation considerably. Of the other variables compared with road test rating at Fort Knox, Army driving experience had the highest correlation, $.245$. This variable was not studied at Fort Bragg, but there civilian driving experience instead had the highest relationship to road test rating with r_{pis} of $.568$. Average vigilance steering was the psychophysical test most highly related to the road test at both Fort Knox and Fort Bragg with correlations of $.119$ and $.377$ respectively.

Because the Fort Knox results were so different from the Fort Bragg, and generally so low, further analysis, such as the progressive sorts of the Fort Bragg study, were not considered worthwhile.

2. Fort Knox Results.

a. Personal data.

Correlations of age, height, weight, education with road test ratings were very low, all of them being less than $.08$. Age was negatively related to road test ratings. (See Table I). The same variables were compared with civilian accidents and very low relationships were indicated, age and education having the highest correlations, both $.09$. (See Table VII)

An attempt was made to remove experience from the relationship between road test rating and age. For the original sample the correlation was $.028$ (Pearson "r"). The biserial correlation, omitting the immediate failures, was $-.059$. These immediate failures were chiefly the inexperienced men. A different method for eliminating the experience factor was tried, partialing out experience mathematically, and using the total group. This produced a correlation of $-.080$ which, altho quite low, tended towards the direction expected for these variables.

RESULTS AND INTERPRETATIONS: (Continued)

b. Driving experience.

Variables measuring previous driving experience were more related to road test ratings than were any others, but the actual correlations were still quite low, all being below .25. (See Table I) Accidents and violations had lower correlations with the road test than some of the psychophysical tests and other variables, but were related to each other, r_{ois} being .383 (See Table III)

Percentage distributions of ratings for various discontinuous variables were obtained. Table X indicates that previous civilian experience in truck driving was more valuable than experience in passenger car driving for the selection of Army truck drivers. A chauffeur's license, too, was more valuable than a passenger license (Table XI). Possession of a U. S. license was slightly advantageous. Apparently, however, the requirements for an Army license were less stringent than those of the road test.

Almost half of the men tested at Fort Knox had had less than one month of Army driving experience. Almost one-fourth of the men had had a year or more Army driving experience. (See Table VIII) More than one third of the men tested had U. S. licenses (Table XI). For other variables there was a similar lack of homogeneity in the sample.

c. Psychophysical tests.

Correlations between these tests and the road test or separate items on the road test were generally low. The highest correlations for the psychophysical tests and each of these measures are as follows:

Road Test - Ave. Vig. Steering -	$r = .119$	Table I
Turning Corners - Ave. Vig. Steering -	$r = -.106$	Table IV
Steering - Ave. Vigilance Steering -	$r = -.169$	Table VI
Backing to Platform - Ave. Vig. Braking * -	$.111$	Table IV
Parking - Simple Steering -	$r = -.093$	Table V

The distributions of scores on the visual acuity and depth perception tests were skewed, with a majority of the men making high scores. Very few of the men made poor scores on the steering and braking tests either. Since the men seemed to be relatively homogeneous with respect to these psychophysical measures, the correlations with road test ratings would have been generally low.

The road test was not a good criterion for validating the glare vision, glare recovery and night vision tests since it was given in the day time when the effects of these abilities on driving could not be observed.

RESULTS AND
INTERPRETATIONS:
(Continued)

Civilian accidents were also compared with scores on these tests. Night vision had the highest r , .344, but the standard error was .133. (See Table VII)

An attempt was made to determine the effect of sugar on night vision. About 450 men were given sugar before the night vision test to test the hypothesis that eating sugar affects Night Vision. However, the results did not support this theory. Differences in mean test scores of those who ate sugar and those who did not were not significant.

In order to see whether the varying amounts of previous experience were seriously disturbing the true relationships between the psychophysical tests and driving ability as measured by the road test, a group of drivers who were more homogeneous with respect to experience was selected from the total sample. The correlation between road test ratings and average brake time increased from $-.069$ to $-.077$, but the standard error also increased. Two other variables which were analyzed for this group - average vigilance steering and simple steering - showed less relationship to road test rating for this group than they did for the total sample.

Apparently experience did not have much effect on the relationships between the psychophysical tests and the road test ratings. The results indicated that the psychophysical tests would not be valid measures of driving aptitude for inexperienced men, or men with similar degrees of experience. The problem of the selection of inexperienced men with driving aptitude was not helped constructively by this study except as it indicated the ineffectiveness of the psychophysical tests for this purpose.

d. Internal Relations of road test.

The road test was compared with passing or failing on separate items of road test. Tetrachorics indicate that the items which were most highly related to over-all rating were those which were concerned with familiarity with controls (See Table II). For example, failure to use proper gear had a r_{tet} of .57 with road test rating. Several of the items were not discriminating enough for the computation of a tetrachoric correlation. Whether these items were too easy, or examiners paid too little attention to them, it seems they were of little value in the road test. The road test rating was not a composite of performances on the separate items, but was rather a general over-all impression.

The distributions of ratings given by the different examiners indicated that the ratings were not objective or well standardized. The examiners differed widely in the percentage of men assigned to each rating (See Table XLV). In the total distribution there were too few men assigned to the better ratings.

RESULTS AND
INTERPRETATIONS:
(Continued)

3. Summary

No test or other variable was found which correlated sufficiently high with the criterion of truck driving ability, the road test, for use in the selection of Army Truck Drivers. The criterion, itself, was far from satisfactory for several reasons. It was not objective enough, as indicated by the distributions of ratings of the different examiners (Table KIV). It was not scaled satisfactorily for the total range of driving ability as indicated by the total distribution of ratings. It contained too many items which were not discriminating (See Table II)

TABLE I
 BISERIAL CORRELATIONS OF CONTINUOUS VARIABLES
 WITH RATING ON ROAD TEST

Variable	Fort Knox ¹		Fort Bragg ²	
	r_{bis}^*	$\sigma_{r_{bis}}$	r_{bis}	$\sigma_{r_{bis}}$
1. Total No. Unsatisfactory Items	-.832	.027	-.278	.037
2. Army Driving Experience	.245	.027	---	---
3. Years Licensed	.151	.027	.419	.033
4. Annual Mileage	.137	.027	.438	.029
5. Civilian Driving Experience	.134	.027	.568	.025
6. Ave. Vig. Steering (higher scores indicate better performance)	.119	.037	.377	.030
7. Acuity, Left Eye (higher scores indicate better performance)	.091	.027	.118	.030
8. Simple Steering (higher scores indicate better performance)	.085	.027	.343	.031
9. Depth Perception (higher scores indicate better performance)	.080	.028	.047	.034
10. Height	.077	.027	.161	.033
11. Weight	.072	.027	.179	.033
12. Ave. Brake Time (higher scores indicate <u>poorer</u> performance)	-.069	.027	-.297	.032
13. Civilian Accidents	.068	.027	.072	.045
14. Age	-.059	.027	-.004	.034
15. Acuity, Right Eye (higher scores indicate better performance)	.053	.027	.147	.034
16. Ave. Vig. Braking (higher scores indicate <u>poorer</u> performance)	-.046	.027	-.254	.032
17. Acuity, Both Eyes (higher scores indicate better performance)	.045	.027	.177	.033
18. Night Vision-Sugar (higher scores indicate <u>poorer</u> performance)	.04	.060		
19. Night Vision, no sugar (higher scores indicate <u>poorer</u> performance)	-.03	.051	-.061**	.115
20. Night Vision, sugar unknown (higher scores indicate <u>poorer</u> performance)	-.02	.088		

(Continued on Next Page)

¹ r_{bis} from widespread classes, ratings 1 & 2 Vs. 4 & 5.

² r_{bis} Z (rejected) Vs. Y, X, & W (respectively fair, very satisfactory, and exceptional)

*Positive correlations indicate association between better ratings on road test and higher test scores.

Negative correlations indicate association between better ratings on road test and lower test scores.

**At Fort Bragg effects of sugar on Night Vision were not studied.

TABLE I, Cont.

<u>Variable</u>	<u>Fort Knox</u>		<u>Fort Bragg</u>	
	<u>r_{bis}</u>	<u>σ_{r_{bis}}</u>	<u>r_{bis}</u>	<u>σ_{r_{bis}}</u>
21. Army Accidents	-.026	.028	.014	.046
22. Civilian Violations	.024	.027	.115	.045
23. Glare Vision (higher scores indicate <u>poorer</u> performance)	-.023	.027	.057	.034
24. Ave. Glare Recovery (higher scores indicate <u>poorer</u> performance)	-.019	.027	-.067	.034
25. Years Education	.010	.027	.159	.033

TABLE II

TETRACHORIC CORRELATIONS¹ OF SEPARATE ITEMS ON ROAD TEST
WITH TOTAL ROAD TEST RATING

<u>Item</u>	<u>r_{tet}</u>
1. Fails to use proper gear uphill	.57
2. Fails to use proper gear downhill	.55
3. Jerky start - on level	.53
4. Does not use double clutch	.52
5. Stalls on hill	.44
6. Coasts back on turnabout	.44
7. Jerky start - on hill	.43
8. Strains motor - speed control	.43
9. Excessive number of maneuvers - parking	.38
10. Rolls back when starting on hill	.37
11. Fails to respond to stop signs	.37
12. Too fast over rough road	.32
13. Fails to release hand brake - starting on level	.31
14. Rides clutch - slips clutch	.30
15. Poor perception - steering	.27
16. Hand signals	.25
17. Hits guide post - parking	.22
18. Not close enough to platform - backing	.22
19. Fails to use front wheel drive.	.20
20. Rate of brake application - stopping on level	--- ²
21. Timing of brake applications - " " "	---
22. Improper use of clutch - " " "	---
23. Swings wide on turn	---
24. Swings short on turn	---
25. Too fast on turn	---
26. Bumps platform - backing	---
27. Exceeds speed limit	---
28. Inattention	---
29. Fails to react properly to instructions	---
30. Poor judgment in traffic	---
31. Overconfident	---

¹Ratings 1, 2, 3 vs. 4, 5 on Road Test; passing vs. failing separate items.

²---Too few cases were checked as failing these items for computation of r_{tet}

TABLE III

BISERIAL CORRELATIONS BETWEEN TURNING CORNERS¹ AND 12 VARIABLES

<u>Variable</u>	<u>r_{bis}²</u>	<u>σ_{r bis}</u>
1. Ave. Vigilance Steering (higher scores indicate better performance)	-.106	.057
2. Simple Steering (higher scores indicate better performance)	-.101	.056
3. Civilian Accidents	-.083	.056
4. Ave. Vigilance Braking (higher scores indicate <u>poorer</u> performance)	-.042	.056
5. Acuity, both eyes (higher scores indicate better performance)	.026	.056
6. Ave. Brake Time (higher scores indicate <u>poorer</u> performance)	-.023	.056
7. Glare Vision (higher scores indicate <u>poorer</u> performance)	.021	.056
8. Acuity, right eye (higher scores indicate better performance)	.019	.056
9. Ave. Glare Recovery (higher scores indicate <u>poorer</u> performance)	-.016	.056
10. Depth Perception (higher scores indicate better performance)	-.006	.056
11. Acuity, left eye (higher scores indicate better performance)	-.001	.056
12. Night Vision (higher scores indicate <u>poorer</u> performance)	-.001	.075

¹ Passing all items on this part of driver test vs. failing 1 or more items.

² Positive correlations indicate association between failure on Turning Corners and higher test scores

Negative correlations indicate association between failure and lower test scores.

TABLE IV
 BISERIAL CORRELATIONS BETWEEN BACKING TO PLATFORM¹ AND 12 VARIABLES

<u>Variable</u>	<u>r_{bis}²</u>	<u>σ_{r_{bis}}</u>
1. Ave. Vig. Braking (higher scores indicate <u>poorer</u> performance)	.111	.046
2. Ave. Brake Time (higher scores indicate <u>poorer</u> performance)	.082	.046
3. Night Vision (higher scores indicate <u>poorer</u> performance)	-.071	.057
4. Acuity, both eyes (higher scores indicate better performance)	-.057	.046
5. Civilian Accidents	-.047	.046
6. Depth Perception (higher scores indicate better performance)	-.046	.046
7. Glare Vision (higher scores indicate <u>poorer</u> performance)	-.044	.046
8. Simple Steering (higher scores indicate better performance)	-.029	.046
9. Ave. Glare Recovery (higher scores indicate <u>poorer</u> performance)	.026	.046
10. Acuity, right eye (higher scores indicate better performance)	.010	.046
11. Ave. Vig. Steering (higher scores indicate better performance)	-.009	.046
12. Acuity, left eye (higher scores indicate better performance)	.005	.046

¹ Passing all items on this part of driver test vs. failing 1 or more items.

² Positive correlations indicate association between failure on Backing to Platform and higher test scores.

Negative correlations indicate association between failure on Backing to Platform and lower test scores.

TABLE V
 BISERIAL CORRELATIONS BETWEEN PARKING¹ and 12 VARIABLES

	<u>Variable</u>	<u>r_{bis}²</u>	<u>σ_{r_{bis}}</u>
1.	Simple Steering (higher scores indicate better performance)	-.093	.031
2.	Acuity, both eyes (higher scores indicate better performance)	-.076	.032
3.	Civilian Accidents	-.062	.032
4.	Ave. Vig. Braking (higher scores indicate <u>poorer</u> performance)	.045	.032
5.	Depth Perception (higher scores indicate better performance)	-.038	.032
6.	Ave. Brake Time (higher scores indicate <u>poorer</u> performance)	.034	.032
7.	Acuity, right eye (higher scores indicate better performance)	-.017	.032
8.	Acuity, left eye (higher scores indicate better performance)	-.014	.032
9.	Glare Vision (higher scores indicate <u>poorer</u> performance)	.012	.032
10.	Ave. Glare Recovery (higher scores indicate <u>poorer</u> performance)	.011	.032
11.	Ave. Vig. Steering (higher scores indicate better performance)	-.010	.010
12.	Night Vision (higher scores indicate <u>poorer</u> performance)	.007	.041

¹ Passing all items on this part of driver test vs. failing 1 or more items.

² Positive correlations indicate association between failure on Turning Corners and higher M test scores.

Negative correlations indicate association between failure and lower test scores.

TABLE VI

BISERIAL CORRELATIONS BETWEEN STEERING AND 12 VARIABLES

Variable	r_{bis}^2	$\sigma_{r_{bis}}$
1. Ave. Vig. Steering (higher scores indicate better performance)	-.169	.049
2. Depth Perception (higher scores indicate better performance)	-.153	.050
3. Ave. Glare Recovery (higher scores indicate poorer performance)	.140	.050
4. Simple Steering (higher scores indicate better performance)	-.109	.050
5. Acuity, right eye (higher scores indicate better performance)	-.097	.050
6. Civilian Accidents	-.087	.050
7. Acuity, left eye (higher scores indicate better performance)	-.059	.050
8. Ave. Brake Time (higher scores indicate poorer performance)	.056	.050
9. Acuity, both eyes (higher scores indicate better performance)	-.048	.050
10. Ave. Vig. Braking (higher scores indicate poorer performance)	.043	.050
11. Night Vision (higher scores indicate poorer performance)	.031	.065
12. Glare Vision (higher scores indicate poorer performance)	.008	.050

¹ Passing all items on this part of driver test vs. failing 1 or more items.

² Positive correlations indicate association between failure on Steering and higher test scores.

Negative correlations indicate association between failure and lower test scores.

TABLE VII

BISERIAL CORRELATIONS BETWEEN CIVILIAN ACCIDENTS¹ AND 22 VARIABLES

<u>Variable</u>	<u>r_{bis}²</u>	<u>σ_{r_{bis}}</u>
1. Civilian Violations	.383	.039
2. Night Vision, Sugar Unknown (higher scores indicate <u>poorer</u> performance)	.344	.133
3. Years Licensed	.251	.041
4. Annual Mileage	.187	.041
5. Civilian Driving Experience	.159	.042
6. Age	.092	.042
7. Years Education	.088	.042
8. Ave. Vig. Braking (higher scores indicate <u>poorer</u> performance)	.088	.042
9. Glare Vision (higher scores indicate <u>poorer</u> performance)	-.056	.042
10. Ave. Vig. Steering (higher scores indicate better performance)	.053	.042
11. Night Vision, Sugar (higher scores indicate <u>poorer</u> performance)	-.050	.094
12. Height	-.048	.042
13. Acuity, both eyes (higher scores indicate better performance)	-.048	.042
14. Acuity, right eye (higher scores indicate better performance)	-.039	.042
15. Acuity, left eye (higher scores indicate better performance)	-.034	.042
16. Depth Perception (higher scores indicate better performance)	-.024	.042
17. Ave. Glare Recovery (higher scores indicate <u>poorer</u> performance)	.021	.042
18. Ave. Brake Time (higher scores indicate <u>poorer</u> performance)	-.021	.042
19. Weight	.012	.042
20. Night Vision, No Sugar (higher scores indicate <u>poorer</u> performance)	.012	.074
21. Simple Steering (higher scores indicate better performance)	.008	.042
22. Army Accidents	.004	.043

¹ No accidents vs. 1 or more accidents.

² Positive correlations indicate association between accidents and higher test scores.

Negative correlations indicate association between accidents and lower test scores.

TABLE VIII

LENGTH OF ARMY DRIVING EXPERIENCE

<u>Length of Experience</u>	<u>Number of Cases</u>
Less than one month	909
1 month	86
2 months	100
3 months	67
4 months	64
5 to 11 months	242
1 year	214
2 years	61
3 years	50
4 years or more	132
Not stated	<u>3</u>
<u>Total</u>	1928

TABLE IX

CORRELATIONS BETWEEN TRUCK DRIVING EXPERIENCE AND ROAD TEST RATING

<u>Vehicle Grouping</u>	r_{tet}	
	<u>Rating Grouping</u>	
	<u>1, 2, 3 vs. 4,5</u>	<u>1, 2, 3, vs 4,5,6,7,8</u>
1. Passenger vs. heavy truck + heavy truck & passenger	.16	.26
2. Passenger + passenger & light truck vs. heavy truck + heavy truck & passenger	.18	.25
3. Passenger + passenger & light truck + light truck vs. heavy truck + heavy truck & passenger + bus + farm implements	.13	.26

Correlation between Color and Night Vision:

$$r_{bis} = .17 \quad (\text{in favor of whites})$$

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TABLE X

DISTRIBUTION OF ROAD TEST RATINGS FOR TYPE VEHICLE DRIVEN
IN CIVILIAN LIFE

<u>Vehicle</u>	<u>No. of Cases</u>	<u>Percentage of Ratings</u>									<u>Total</u>
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>X</u>	
None	85	0	6	14	22	8	1	5	44	0	100
Private Passenger & Heavy Truck	268	0	26	47	18	6	0	1	1	1	100
Heavy Truck	930	1	20	42	24	7	0	2	3	1	100
Private Passenger	409	1	12	35	24	10	0	4	13	1	100
Total Population	1928	1	18	40	23	7	0	2	8	1	100

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TABLE XI

DISTRIBUTION OF ROAD TEST RATINGS FOR TYPE OF LICENSE HELD
IN CIVILIAN LIFE, AND POSSESSION OF U. S. LICENSE

<u>Type of License</u>	<u>No. of Cases</u>	<u>Percentage of Ratings</u>									<u>Total</u>
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>X</u>	
None	344	0	7	29	24	11	0	4	24	1	100
Chauffeur	337	2	28	41	20	5	0	1	3	0	100
Passenger	1227	1	17	43	24	7	0	2	5	1	100
U. S. License	724	2	26	45	19	5	0	1	1	1	100
No U. S. License	955	0	11	36	26	10	0	3	14	0	100
Total Population	1928	1	18	40	23	7	0	2	8	1	100

TABLE XII

DISTRIBUTIONS OF ROAD TEST RATINGS FOR DISCONTINUOUS VARIABLES

<u>Variable</u>	<u>No. of Cases</u>	<u>Percentage of Ratings</u>									<u>Total</u>
		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>X</u>	
<u>Supervisors' Ratings</u>											
Superior	117	2	15	49	25	4	0	5	0	0	100
Good	16	0	56	25	7	6	0	6	0	0	100
Average	151	0	14	48	27	7	1	1	2	0	100
<u>Road Sign Test</u>											
Fail	18	0	11	11	39	6	0	6	22	5	100
Pass	1901	1	18	40	23	7	0	2	8	1	100
<u>Glasses</u>											
No Glasses	1840	1	17	40	23	8	0	2	8	1	100
Glasses	81	3	25	33	22	6	0	2	9	0	100
<u>Color</u>											
Colored	78	0	8	31	23	9	0	4	25	0	100
White	1845	1	18	40	23	8	0	2	7	1	100
<u>Total Population</u>	1928	1	18	40	23	7	0	2	8	1	100

TABLE XIII

CORRELATIONS BETWEEN ROAD TEST RATINGS AND SCORES ON
THREE PSYCHOPHYSICAL TESTS FOR A GROUP OF DRIVERS WITH SIMILAR
EXPERIENCE¹

<u>Test</u>	<u>r_{bis}*</u>	<u>σ_{r_{bis}}</u>
1. Average Brake Time (higher scores indicate poorer performance)	-.077	.059
2. Average Vigilance Steering (higher scores indicate better performance)	.051	.059
3. Simple Steering (higher scores indicate better performance)	-.020	.059

¹ Drivers with 7.5 years or more driving experience and annual mileage last year of 14,500 miles or more.

* Road Test Ratings 1 and 2 vs. 4 and 5.

Positive correlations indicate association between better road test ratings and higher test scores.

Negative correlations indicate association between better ratings and lower test scores.

TABLE XIV

Distribution of Road Test Ratings Given by
Each Examiner

<u>Examiner</u>	<u>Percentage Receiving Each Rating</u>						<u>X</u>	<u>Number of Cases</u>
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6-8</u>		
Inskeep			33.3	33.3		33.3		3
Megener	0.8	12.8	37.9	37.2	4.3	6.4	0.6	465
Watkins			33.3			66.7		3
Storer	0.4	19.1	44.6	20.8	2.3	12.8		523
Rider		7.7	35.4	20.0	7.7	26.2	3.0	65
Parker	3.6	23.5	41.5	10.1	9.7	11.1	0.5	368
Paine		17.9	36.9	23.0	15.1	6.4	0.7	431
Civik	9.1	18.2				72.7		11
Not Stated		15.8	31.6	21.05	10.5	21.05		19
Total	1.0	17.6	39.9	23.2	7.4	10.4	0.5	1928