The following is only an abstract of one of our earlier reports. An email request for a printed or PDF copy of the complete report can be generated by clicking on the **Report Number** of this report in the table of reports on the <u>Research Studies and Reports</u> page. The PDF copy of the complete report was created by scanning an original, printed copy, and thus is only *partially* searchable and *is not* accessible, but is fully printable.

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TITLE: Vision Research Project Progress Report

DATE: Oct 1960

AUTHOR(S): Research & Development

REPORT NUMBER: 2

NTIS NUMBER:

FUNDING SOURCE: Departmental Budget

PROTECT OBTECTIVE:

To present an interim report on the finding of our Visual Research Program for which a preliminary report was presented in January 1959.

SUMMARY:

In January 1959, we presented a preliminary report of our data tabulated during our Visual Research Program (a copy of which is attached). Since that time further analysis and tabulations have been made, but since we have not completed all phases of our research program in relation to this particular project, this report must be considered as an interim report.

A summary of findings in vision study to date show that:

- 1. Each of the three vision tests given in the study showed a rather strong degree of correlation, although not nearly as large as might have been estimated prior to the study.
- 2. The importance of the research to date is not in what we have found to be true, but rather in what we have not found. Specifically, we find that there is little or no relationship between your ability to see well and the number of motor vehicle accidents that you have. On a percentage basis we find that those with good vision have a higher proportion of accidents, generally speaking, than those with poorer vision.
- 3. A fairly large number of computations were made comparing a series of two factor situations. These computations were made with glasses or without glasses during the test. A third set was made in their driving situation, whether they wore glasses while driving, or did not wear glasses while driving.
- 4. Vertical phoria tests showed that people with imperfect vision had fewer accidents proportionately than those applicants with normal vision.
- 5. Lateral phoria tests showed that as your visual ability deviates from normal, the general tendency is that more people proportionately will have traffic signal violations. The same tendency appears in the lateral phoria tests within type of violations without glasses.
- 6. Depth within type of violation without glasses tests showed that the percentage of traffic signal violations generally decrease as the depth perception improves. There is also a relationship between the numbers of violation for speeding, although it is an inverse relationship in that. As the ability to determine depth accurately improves, the number of speeding tickets also increases proportionately.
- 7. Side vision right eye within type of violation with glasses. Applicants with normal side vision have fewer traffic tickets for traffic signal violations than do applicants with poor side vision. We

also fine that as side vision improves a greater percent of applicants are involved with speeding citations. In reviewing the test for side vision for the right eye without glasses, we find that as the side vision improved fewer and fewer applicants proportionately were involved with violations of failure to stop for through highways.

- 8. In reviewing the test of side vision for the right eye within total number of accidents for those applicants who do not wear glasses while driving, we found a significant decrease in the number of accidents involved as the side vision improved. This is one of the most significant differentiations found in the tests.
- 9. A slight relationship exists between the number of miles driven per year and the number of accidents experienced during the five year period prior to the interview. The degree of this relationship has not been specifically determined •. Further research, we hope, will give us this degree of relationship.

SUPPLEMENTARY INFORMATION:

None.