National Cooperative Highway Research Program

RESEARCH RESULTS DIGEST

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National Survey of Transportation Attitudes and Behavior

Phase II Analysis Report

An NCHRP staff digest of the essential findings from the final report on NCHRP Project 20-4, "Public Preference for Future Individual Transportation," by Robert K. McMillan and Henry Assael, Chilton Research Services, Philadelphia, Pa.

Superseded by NCHRP Rept 82

THE PROBLEM AND ITS SOLUTION

Reliable information is needed on public attitudes and behavior related to transportation to permit more effective planning for the allocation of resources for transportation purposes. The objective of the research was to determine the attitude and behavior of the public as they relate to transportation, and to identify the factors that influence such attitude and behavior.

In May 1967 two independent survey organizations conducted hour-long interviews with a representative sample of 5,000 people living in the continental United States. A Phase I Summary Report (NCHRP Report 49), published in 1968, presented a preliminary analysis of the nationwide survey. The Phase II Analysis Report, currently in the publication process, presents results of a more advanced statistical analysis of the data. This analysis is multi-variant in nature; that is, it considers many variables simultaneously to obtain a comprehensive view of transportation attitudes, their relation to behavior and demographic characteristics, and profiles of people holding these views.

In the study 16 charts were developed that indicate attitudes, according to eight demographic variables, toward spending for roadways and highways and public transportation. The report deals comprehensively with data by describing the methodology, statistical methods used, and the detailed findings. It includes an appendix which describes the survey plan and contains questionnaires used in the study.

FINDINGS

The automobile is by far the most important mode of travel to the American household. It is an important dimension of pride, material ownership, and personal involvement. Attitudes towards the automobile are very positive.

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Although the automobile is favored most as a mode of transportation, it is not favored at the expense of public transportation. Findings indicate that:

1. The individual who rates the automobile high as a mode of transportation does not necessarily rate public transportation low.
2. The person who is dissatisfied with the transportation attributes of public transportation is not necessarily satisfied with the attributes of the automobile.
3. The individual who rates public transportation facilities high does not necessarily rate roads and highways low. The only conflict between the two modes appeared in the attitudes -- 54% felt more should be spent on roads and highways, and 46% felt more should be spent on public transportation (see Figs. 15 and 16).
4. People favoring an increase in spending for roads and highways were more likely to live in the South, in rural areas, to travel more by automobile, and to place a somewhat lower value on public transportation. They were also more likely to be men and to be under 40 years old. Those favoring greater expenditures for public transportation were more likely to live in the East or West, in metropolitan areas, to travel more by public transportation, and to have less favorable attitudes toward highway planning and toward the role of the automobile in American society.
5. People in general tend to be more critical of the facilities than of the mode of transportation. The automobile is often viewed as an item of ownership and pride going beyond its purely transportational function. Planning for road and highway facilities is more likely to be the subject of criticism. Highway administrators must recognize that although people relying more heavily on the automobile are also more likely to favor increased highway expenditures, increased automobile use will not necessarily forecast a more favorable attitude to the quality of road and highway facilities.
   In addition, it is significant that those most critical of highway planning are more likely to favor increased expenditures for public transportation. These metropolitan residents do not favor a decrease in allocations to roads and highways. (In fact, most favor an increase.) Rather, they are more critical of the way these allocations are spent.
6. People most likely to favor the way roads and highways are planned and built lived in the North Central or South, in non-metropolitan areas, and rated the automobile somewhat higher than the rest of the sample. They also tended to have a somewhat lower level of education and income.
7. An important finding was that automobile use (as defined by total vehicle-miles driven by households) tends to be independent of attitudes toward the automobile or highway planning. The number of miles driven was related more to demographic and use patterns. The dominance of demographic rather than transportation attitudes in defining the extensive highway user suggests that automobile use is conditioned by environmental circumstances, particularly business and family requirements, rather than specific attitudes and opinion.
8. Attitudes toward public transportation facilities were more closely related to use of these facilities compared to roads and highways. People placing a higher value on public transportation tended to use these facilities more frequently and were willing to allocate more money to these facilities. The greater influence of transportation attitudes in describing people with more favorable attitudes to public transportation demonstrates that the perceptual separation between mode and facility that existed for the automobile was not as evident for public transportation. This is logical; people do not associate pride of ownership with public transportation modes.
9. People rating the quality of roads and highways as "poor" were more likely to want to increase spending for roads and highways. The same held true for public transportation. A negative attitude toward the quality of the facility was more likely to produce a positive attitude toward increased spending. Thus, the heaviest users of roads and highway facilities are likely to be critical of

these facilities, yet desire greater allocations. This is logical; the frequent driver is more aware of, and, therefore, more discriminating in evaluating these facilities.

10. When attitudes toward specific transportation modes for particular occasions were interrelated, it was found that people favoring a certain mode tended to favor it for most use occasions. Favorable attitudes toward one mode were not won at the expense of other modes. People favoring the automobile for local use rated it positively for all use occasions. Those favoring subways also rated commuter trains positively for all local occasions. Persons rating automobiles positively for long-distance travel for family or business occasions were more likely to rate air travel negatively.
11. The relationship between long-distance automobile and air travel was the only case where transportation modes were viewed in a competitive manner. It is significant that attitudes toward long-distance modes of transportation are more likely to be competitive than attitudes toward local modes.
12. Metropolitan area residents placed a higher value on public transportation. They also tended to be more critical of the automobile's role in society and of highway planning. Rural people displayed the opposite tendencies.
13. Data on people in five metropolitan areas with rail mass transportation were separated from the rest of the sample. They were found to have attitudes similar to people in other large metropolitan areas, but placed a somewhat higher value on public transportation and displayed greater willingness to increase spending for this mode.
14. Higher income groups also tended to be more critical of all modes of transportation and of highway planning and planners. People with less education held more positive attitudes toward the automobile.
15. Considering occupational categories, professional people were more critical of the automobile and highway planning and felt greater emphasis should be placed on public transportation. Blue collar workers demonstrated the opposite attitudes.
16. Younger people tended to be more critical of all transportation modes and were more willing to spend more for roads and highways compared to the rest of the sample.
17. Cross-tabulations by race produced some differences by transportation attitudes. Non-whites expressed more favorable attitudes toward public transportation than whites (see Figs. 13 and 14). They felt more money should be spent on these facilities.
18. Males were somewhat more positively oriented to the automobile and were more willing compared to females to increase spending for all transportation facilities (see Figs. 15 and 16).

APPLICATIONS

Highway officials are continuously called upon to act as surrogates of the public when determining allocations of public funds for improving existing or providing new transportation facilities. They convey their decisions to the people at public hearings, when presenting public work programs to legislative bodies, and through many varied forms of the mass media.

The results obtained from this comprehensive national survey conducted by two independent research agencies are dramatic proof of the important role that the automobile plays in the American household, how the American public holds the automobile in high regard and personally identifies itself with it.

The findings of this study and the relationships of people's attitudes with demographic characteristics should be of practical use to highway officials in their understanding of the people's attitudes toward transportation. It should help them in their decision-making process on matters regarding resource allocation in the public interest. It will also be useful in making presentations at public hearings, before legislative bodies, and at other public appearances. Should qualified researchers have an interest in pursuing the work further, some 1,700 tables of cross-tabulations are available for review in the NCHRP offices at the Highway Research Board.

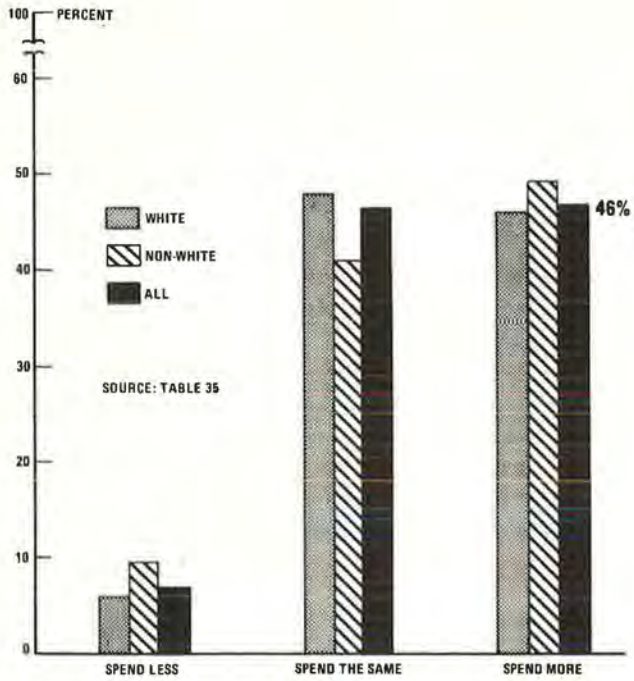

Figure 13. Attitudes toward spending for public transportation, by race (Question 8).

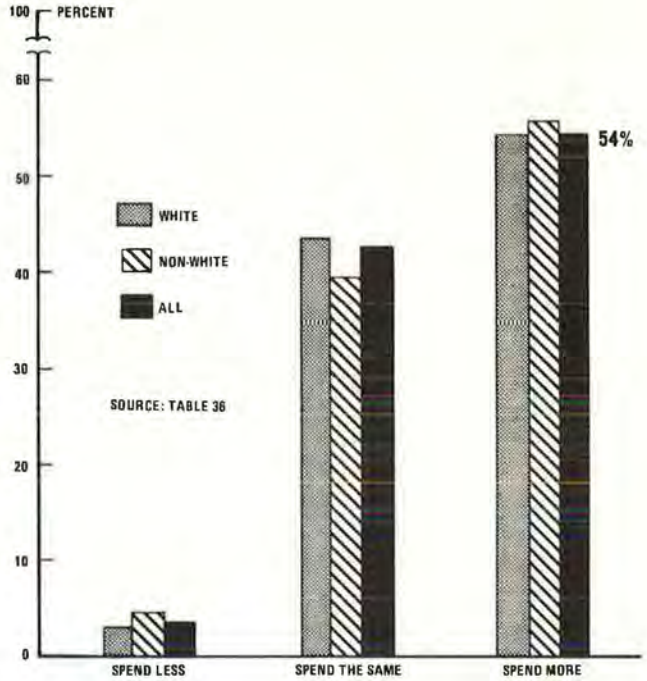

Figure 14. Attitudes toward spending for roads and highways, by race (Question 8).

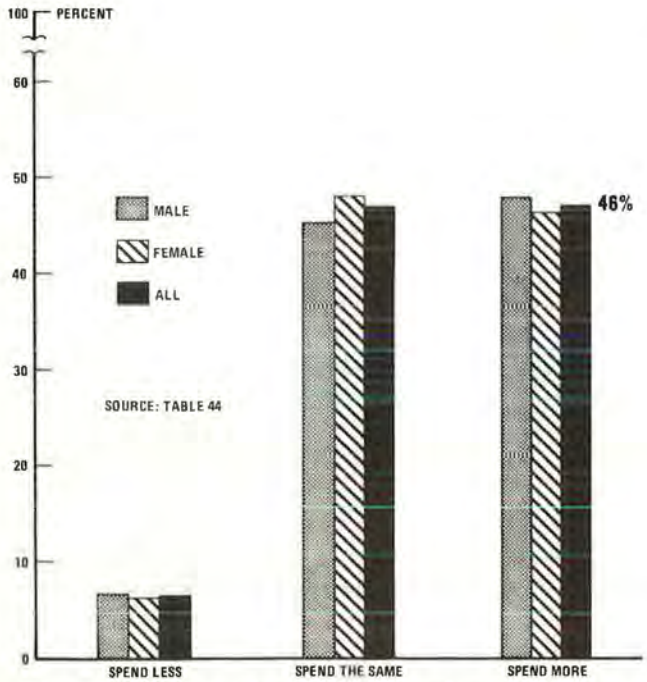

Figure 15. Attitudes toward spending for public transportation, by sex (Question 8).

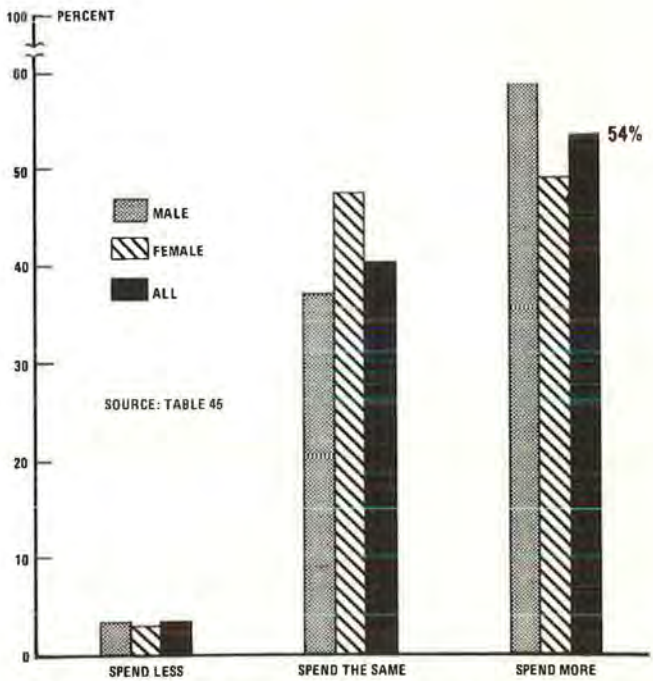

Figure 16. Attitudes toward spending for roads and highways, by sex (Question 8).