FINAL REPORT MOTORISTS' IMPRESSION OF THE HOV SIGNS ON 1-66

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Michael A. Perfater Research Scientist

(The opinions, findings, and conclusions expressed in this report are those of the author and not necessarily those of the sponsoring agencies.)

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SUMMARY AND CONCLUSIONS

In December 1982, the ten-mile, \$285 million segment of Interstate 66 between the Interstate 495 Capital Beltway and the Theodore Roosevelt Bridge in Arlington, Virginia, was opened to traffic. As a condition for the use of federal construction funds, the highway was designated for restricted use during peak-hour traffic. To denote this restriction, the Virginia Department of Highways and Transportation proposed that a variable message sign using the abbreviation HOV (high occupancy vehicle) be used. Because this abbreviation is not generally known to motorists and does not appear in the Manual on Uniform Traffic Control Devices, the Research Council was asked to assess public reaction to it. This report presents the results of that assessment, which consisted of surveys of residents living adjacent to the I-66 segment and of motorists traversing it.

The study has shown that virtually everyone using I-66 knows what the abbreviation means. The media blitz carried out by the Department to inform Northern Virginians of the use and meaning of HOV appeared to have reached fewer than half of the respondents, since more than 44% said that they first became aware of the term during a trip down I-66. There was some indication by these respondents that many of the motorists ticketed for being on the facility illegally may have been ignorant of the meaning of HOV. Suffice it to say that while the publicity campaign was fairly effective, it did not reach as many people as it should have. A number of respondents, in fact, felt that a continuation of the publicity, including but not limited to newspaper and TV ads, and enclosing HOV information in driver registration renewals were absolutely necessary. According to these respondents, civic associations and meetings of employee groups are not the best vehicles for spreading such information.

Similarly, there was much concern over the inadequacy of HOV information made available to tourists and out-of-state drivers. Since HOV neither appears on the official state highway map nor in rest areas and welcome centers, it is likely that tourists first encounter the term on the warning signs placed in advance of the restricted segment of I-66. It was the feeling of a number of respondents that the signs currently used are not adequate to alert the unfamiliar or out-of-state traveler of the restricted segment of I-66 ahead. Several respondents suggested that a flashing light be attached to these signs, but the most often heard suggestion was that the diamond lane symbol be used more prominently. There was also significant feeling that warning signs informing drivers of the upcoming restricted segment be used. Such signs, they said, could carry any number of messages from those denoting penalities for noncompliance to those of a "last exit before ..." variety. It would appear that these two items, along with a notation on

the official state highway map and some publicity at rest areas preceding the restricted segment, will greatly assist the out-of-state driver. Additionally, in recognition that drivers of automobiles bearing out-of-state license tags may be unfamiliar with the HOV abbreviation, perhaps some consideration needs to be given to how the tourist or nonlocal offenders should be treated by law enforcement officers. While immunity for this group is certainly a possibility, a more viable approach might be a warning rather than a citation for first-time offenders. This, along with better accessibility to information for tourists, should do much to ensure fair treatment for drivers who may be unfamiliar with the I-66 restrictions.

Respondents were fairly evenly split regarding their opinion of the use of HOV. Roughly 27% were in favor of it, 29% were against it, and 36% were neutral. There was much sentiment that the restriction be reduced to HOV-3 to accommodate smaller, more economical, gas efficient automobiles as well as to cater to four-person car pools experiencing frequent absenteeism. As one would suspect, the majority of the negative comments centered around the removal of or a change in the occupancy restriction, not with the abbreviation itself. A number of respondents were critical of the Department for its use of these restrictions. It is the author's opinion that for the most part, the public in Northern Virginia has not been provided sufficient information regarding the source of the decision to restrict the use of this segment of I-66 nor of the rationale for doing so. It is possible that had these individuals (and the public in general) been given that information, the Department would not be perceived in the light that it is by many Northern Virginians.

It is likely that in time HOV will become acceptable to the motoring public, but publicity into the District of Columbia, suburban Maryland, and the outer reaches of Virginia must continue for this to happen. This publicity should include more information as to why this segment of I-66 is being restricted, whose decision it was, and why there is a need for the restriction. Dissemination of this information will do much to improve the relationship between the Department and the public.

RECOMMENDATIONS

The findings from the study have led to the following recommendations.

- 1. Increased use of the diamond lane marking symbols such as those shown in Section 2B-20 of the MUTCD is recommended. Normally, these signs are used to specify preferential lane treatment but, as pointed out in the aforementioned citation, other messages may be used to fit a specific preferential lane use operation.(1)
- 2. The HOV sign should be included in the MUTCD.
- 3. Publicity regarding the HOV abbreviation itself, as well as the restrictions promulgated, should be continued. Additional literature explaining the rationale for both the restrictions and the abbreviation should be distributed to the residents of Northern Virginia. In addition, continual news releases concerning I-66 activities to local radio and television stations from the Department are recommended.
- 4. Additional information regarding the restrictions on I-66 needs to be provided to nonlocal drivers. This information may be provided in the following forms:
 - (a) Additional static signing on the eastbound lane of I-66. These signs should be located further downstream on I-66 than those presently in place.
 - (b) The HOV restriction should be designated on the Department's official map.
 - (c) Information regarding the HOV restrictions should be displayed at outlying rest areas.
- 5. A sign should be erected near the exit just before the restricted segment to warn motorists that it is the last exit prior to the restricted segment.



MOTORISTS' IMPRESSION OF THE HOV SIGNS ON I-66

by

Michael A. Perfater Research Scientist

BACKGROUND

The planning for the portion of I-66 between the I-495 Beltway and Washington D.C. began in the 1940's at the local county level with the adoption of a local thoroughfare plan. During the 1950's recommendations for locating the facility were worked on, and in 1959 this portion became a part of the segment of I-66, planned as a 75-mile link in the National Interstate System to connect I-81 in western Virginia to Washington D.C. By the 1960's, 85% of the right-of-way had been acquired, over 90% of the dwellings had been purchased by the Virginia Department of Highways and Transportation, and 500 families had been relocated. During that same period public controversy, along with new federal legislation and administrative regulations and guidelines dealing with the environment, stalled construction of this, the final 10-mile section, of I-66. During the 1970's hearings on the environmental issues were held and the project was halted until an environmental impact statement (EIS) was filed and new hearings held to consider the environmental and social impacts of the project. In late 1973, the draft EIS containing five alternatives involving combinations of highway and transit was released. The option selected by the State Highway Commission called for an eight-lane expressway with rapid transit in the median. The highway portion was reduced to six lanes, and a final EIS was released in 1974. In mid-1975, a public hearing was conducted by then Secretary of Transportation William T. Coleman, Jr. at which he disapproved the proposal presented in the final EIS. response, the Federal Highway Administration (FHWA) and the State Highway Commission presented a new proposal reducing the highway segment to a four-lane facility.(2) Finally, in 1977, Secretary Coleman approved the 10.1-mile stretch of I-66 between I-495 and the Theodore Roosevelt Bridge with several conditions. One of these conditions was that the highway segment be designated a commuter highway in the prevailing direction during peak traffic hours. During those hours, which are 6:30 to 9:00 a.m. and 3:30 to 6:30 p.m., the highway is restricted to use by buses, vehicles carrying four or more passengers, emergency vehicles, and vehicles going to and from Dulles Airport.*

^{*}These restrictions were reduced as this report went to press to 7:00 to 9:00 a.m., 4:00 to 6:00 p.m., and to vehicles carrying three or more passengers, respectively.

Trucks are prohibited from using this section of I-66 at all times. To denote that only the aforementioned types of vehicles are allowed on this facility during these periods, the Virginia Department of Highways and Transportation proposed that a variable message sign using the abbreviation HOV (high occupancy vehicle) be installed (Appendix A). The Department believed that the use of this abbreviation would greatly simplify the variable message signing to be used on I-66. However, because this abbreviation does not appear in the Manual on Uniform Traffic Control Devices and is not generally known by motorists, a campaign to inform citizens of its meaning was conducted by the Department both prior to and after the December 22, 1982, opening of the facility.

The inclusion of a restricted segment into an otherwise non-restricted interstate system is both unique and controversial. To determine the public's reaction to and understanding of the HOV restriction, the study reported here was undertaken. The report presents the results of surveys of drivers traversing I-66 and of residents of Fairfax and Arlington counties.

PURPOSE AND SCOPE

The purpose of this study was to assess the public's familiarity with and understanding of the HOV variable message sign. Specifically, the objectives were to determine -

- 1. the effectiveness of the public educational program in reaching motorists using the facility;
- 2. the motorists' understanding of the abbreviation HOV; and
- 3. any supplemental means that would promote motorist familiarity with and understanding of the sign message.

The study was designed in two phases. Phase I comprised surveys of a sample of motorists traversing I-66 and of people residing adjacent to the facility. The mailed questionnaires used for the surveys were distributed approximately three months after I-66 was opened to traffic. Phase II consisted of a follow-up survey that included only motorists traversing I-66, and these questionnaires were distributed approximately eight months after I-66 was opened. The primary purpose of this second survey was to determine how public opinion and understanding of both the HOV abbreviation and the restrictions may have changed over time.

METHODOLOGY

Phase 1

Approximately one month after I-66 was opened to traffic, 805 license plate numbers were recorded from a random sample of vehicles traversing I-66 in both directions during both restricted and non-restricted hours. Those numbers were then traced throughthe Division of Motor Vehicles (DMV) files for names and addresses, and those motorists were mailed a questionnaire asking them to respond to some questions concerning the HOV signing on I-66, their frequency of usage of the facility, and their opinion of the restricted use of the facility (Appendix B). In addition, the same questionnaire was sent to 1,667 residents living adjacent to I-66 in either Fairfax or Arlington County. Of the 2,472 questionnaires mailed, 86 were returned as being nondeliverable, making the final sample size 2,392. Of that number, 990 completed questionnaires were returned for a response rate of 41.4%.

Phase 2

Approximately seven months after the opening of I-66, another 1,071 license plate numbers were recorded from a random sample of vehicles traversing the facility in both directions during both restricted and nonrestricted hours. These numbers were also traced through the DMV files for names and addresses, and those motorists were mailed the same questionnaire that was used in Phase 1. Of the 1,071 mailed, 438 completed questionnaires were returned for a response rate of 40.9%.

CHARACTERISTICS OF THE SAMPLES

For the Phase 1 sample, 32.6% consisted of motorists seen travelling on I-66 and 67.4% was made up of adjacent residents. Of those responding to the survey, 54.3% lived inside the Capital Beltway, 43.4% between the Beltway and Warrenton, Virginia, and only 2.3% in "other" areas of the state. The majority of those responding (54%) worked in Washington, D.C., 33% in Northern Virginia, and 3% in Maryland; the remainder were retired or unemployed or worked in other parts of the state. The frequencies of use of I-66 were fairly spread out among the respondents. Twenty-six percent claimed they travelled I-66 1 to 2 times per week, about 28% travelled it 3 to 5 times per week, and about 26% used it 6 to 10 times per week. The mean usage appeared to be about 5 times per week. Of particular interest is the fact that more than 60% of the respondents travelled I-66 alone and only 25% used car or van Thus, it appears the majority of the respondents used I-66 during nonrestricted periods or they used the facility illegally. Although these data imply that 25% of those using I-66 rode in pools,

the reader should be reminded that it is 25% of the respondents who rode in pools. It is the opinion of the author, however, that judging from many hours of observation of I-66 traffic this figure is not too far off the mark, although there is a possibility of a nonresponse bias for this item.

The respondents in the Phase 2 sample were a bit different than those in Phase 1, in that all were seen traversing I-66. Table 1 shows a comparison of some of the characteristics of the Phase 1 and Phase 2 respondents. Phase 2 respondents appeared to be more commuter oriented than those in Phase 1, in that more than 65% lived outside the Beltway compared to 45% for Phase 1 respondents. It also shows that more of the Phase 2 respondents worked in Washington, D.C. and used I-66 more often than did those in Phase 1. There were more car poolers in Phase 2 than in Phase 1, and consequently fewer lone drivers.

A perusal of the responses to the remaining questions on the questionnaire revealed very few differences between the responses of Phase 1 and Phase 2 respondents. It was originally hypothesized that these responses would differ due to the passage of time. Since they did not, the data were grouped together for analysis.

Table 1
Characteristics of the Samples

| Category | Phase 1, % of Respondents | Phase 2, % of Respondents |
|--------------------------------|---------------------------|------------------------------|
| Place of Residence | | |
| Inside Capital Beltway | 54.3 | 34.7 |
| Between Beltway & Warrenton | 43.4 | 60.0 |
| Between Warrenton & Winchester | 1.3 | 2.3 |
| Other Virginia | 0.9 | 3.0 |
| Place of Work | | |
| Washington, D.C. | 54.0 | 62.3 |
| Northern Virginia | 32.6 | 29.7 |
| Maryland | 2.8 | 2.5 |
| Retired, unemployed | 1.1 | 1.8 |
| Other | 9.4 | 3.2 |

| Category | Phase 1, % of Respondents | Phase 2, % of Respondents |
|-----------------------------|------------------------------|---------------------------|
| Frequency of Travel on I-66 | | |
| Less than once a week | 0.9 | 4.1 |
| 1-2 times per week | 26.0 | 14.4 |
| 3-5 times per week | 28.3 | 29.5 |
| 6-10 times per week | 8.7 | 14.6 |
| 11 or more times per week | 8.7 | 14.6 |
| Never | 10.5 | 3.7 |
| Means of Travel on I-66 | | |
| Drive alone | 60.6 | 54.1 |
| Car pool | 23.0 | 33.6 |
| Bus | 0.7 | 1.4 |
| Two in car | 7.2 | 4.3 |
| With family | 1.5 | 1.6 |
| Van pool | 1.7 | 2.7 |
| No response | 1.6 | 1.6 |
| TOTAL | 100.0 | 100.0 |

QUESTIONNAIRE RESULTS

Effectiveness of the Public Information Program

When the Department first decided to experiment with the HOV signs on I-66, it was advised by its legal staff that use of the abbreviation would be appropriate only if the FHWA endorsed its use and if an appropriate campaign to inform motorists of the meaning of HOV was conducted. This campaign was envisioned to be part of a public relations effort to acquaint the public with the intended use of I-66 between I-495 and the Potomac River before it was opened to traffic. Upon receiving the concurrence of FHWA on both items, it was decided that this campaign would be conducted by the Department's Information Services Division. The campaign was begun in mid-1982 and proceeded through and one month beyond the December 22, 1983, opening of the facility. The objective was to inform Northern Virginians and others who regularly travelled in the area about the restrictions established for I-66. The campaign was a massive effort in which the dissemination of information was coordinated through civic organizations, chambers of commerce, shopping centers, large centers of employment, local government groups, church and school groups, radio, television, and newspapers. The program was organized into two broad phases -- one being an introduction to the need for the system, its purpose, elements, and schedule for development; in effect, "It's coming and here's what it will be like." The second phase featured the dissemination of more detailed information as to how

motorists should use the traffic management system, and how it would affect them personally in their daily travels; in effect, "Here's how you should use it for maximum benefit."

The survey showed that virtually everyone knew what HOV means. Less than 3% of the respondents did not know the meaning of HOV. The reader should keep in mind, however, that nothing is known about the nonrespondents regarding this question. Since 92% of the respondents reported using I-66 more than once per week, it seems plausible that the meaning of HOV might have been learned from experience rather than the information campaign. A question regarding this issue elicited some rather alarming responses. Table 2 shows the distribution of responses to the question, Where did you first find out about the HOV term?

Table 2 Method of Hearing About HOV Abbreviation (N=1,427)

| Method | Percentage of Respondents |
|---------------------------|---------------------------|
| Saw it on I-66 | 44.6 |
| Newspaper | 27.6 |
| Television | 8.1 |
| Word of mouth | 6.5 |
| Saw it on another highway | 5.9 |
| Radio | 3.5 |
| This questionnaire | 1.0 |
| TOTAL | 100.0 |

As can be seen in the table, while 40% of the respondents reported learning about the abbreviation via the media (newspaper, television, radio) more than 44% first encountered it on a trip down I-66. There is a distinct possibility, then, that many of those ticketed for being on the facility illegally may have been ignorant of the HOV abbreviation. This stands to reason since, as was mentioned earlier, virtually all the sample, both motorists and adjacent residents, now understand the meaning of HOV.



When asked what type of publicity was the most effective for informing the public about the installation of such a new sign, the respondents gave the responses displayed in Table 3.

Table 3

Type of Publicity Preferred for New Signs (N=1,424)

| Type | Percentage of Respondents |
|-----------------------------|---------------------------|
| Newspaper | 36.6 |
| Television | 23.2 |
| Radio | 12.8 |
| Mailers | 9.3 |
| None | 6.7 |
| Public notice | 3.8 |
| Signs on the highway | 4.1 |
| No response | 3.1 |
| Community, employee meeting | 0.4 |
| TOTAL | 100.0 |

As can be seen, the respondents were overwhelmingly in favor of the newspaper as the best method for informing the public about a new sign. In fact, as was suspected, the news media were the choice of almost 73% of the respondents for this question. Surprisingly, the community or employee meeting was the choice of only 2 respondents. In a later section of this report dealing with the various comments entered by respondents, more telling evidence that the advance publicity was not intense enough will be revealed.

Motorist Understanding and Opinion of the HOV Variable Message Sign

As has been previously stated, virtually all the respondents knew the meaning of the HOV term. When asked their opinion of the use of it, however, the responses were not nearly as unanimous. Table 4 shows the responses to the question, What is your general opinion of the use of the HOV abbreviation? As can be seen, respondents were fairly evenly split in their opinions, a few more being opposed to its use than in favor of it. The reader should also be reminded that these percentages did not change significantly over time; that is, the proportions were almost identical in the responses received in the winter of 1983 as in those received in the summer of 1983. Cross tabulations did reveal that those individuals living inside the Beltway were more likely to be in opposition to the use of HOV than those living outside. This stands to reason since the majority of those in the sample who lived outside the Beltway were car poolers and they were probably reacting negatively to the restriction rather than to the abbreviation itself. evidence, however, that the introduction of the abbreviation was viewed by many as unnecessary. A substantial portion of the respondents preferred the use of "car pool" or other appropriate familiar terminology (see Comments section).

Table 4
Opinion of HOV Term
(N=1,423)

| Category | Percentage of Respondents |
|---------------------|---------------------------|
| Favor | 26.7 |
| Opposed | 28.7 |
| Neutral | 35.6 |
| Don't understand it | 1.8 |
| No response | 7.2 |
| TOTAL | 100.0 |

Respondent's Comments

Respondents were provided a space at the end of the questionnaire to submit comments or suggestions concerning HOV. These comments provided a wealth of information, including some interesting suggestions for consideration by those responsible for the administration of the I-66 facility as well as future installations containing the V restriction.

Of the 1,438 completed questionnaires received, comments and suggestions were noted on 1,008. The fact that 70% of the respondents took the opportunity to enter commentary is indicative of the high degree of citizen interest in the I-66/HOV. From the 1,008 questionnaires containing commentary, 1,156 entries were noted. An analysis of these comments revealed that 90% were negative; that is, they called for a significant change in either the I-66 restrictions or the signing. The majority of these comments called for either removal of or a reduction in the HOV restriction. In Table 5, the comments have been categorized and each of these will be discussed.

Table 5
Respondent Comments
(N=1,156)

| Category | Number | Percent |
|-----------------------------|-----------|---------|
| Remove/change restrictions | 569 | 49.2 |
| Signing deficiencies | 467 | 40.4 |
| Additional publicity needed | 42 | 3.6 |
| Positive comments | <u>78</u> | 6.7 |
| TOTAL | 1,156 | 100.0 |

Remove/Change Restrictions

As can be seen in the table, almost half of the comments received called for a removal or adjustment in the I-66 restrictions. The largest percentage of these (45%) favored complete removal of the restrictions. The general gist of the comments was that the respondents felt it was their right "as taxpayers" to use the facility at all times. It also became obvious that this group of respondents, who were

definitely the most vocally negative, had very little idea as to the source of the I-66 restrictions. In fact, many criticized the Department's decision making, which they believed responsible for designating I-66 as a restricted HOV road. Another group, who were not nearly so negative and who represented 17.6% of the group calling for a reduction in the restrictions, wanted to see HOV-4 become HOV-3. respondents presented two basic arguments. Most often mentioned was the fact that the typical down-sized automobile is uncomfortable for four passengers; the other was that in a four-person car pool one rider is often sick, on vacation, or otherwise unable to attend work. four-passenger requirement often may deny one of the goals of an HOV restricted highway -- the 4-passenger car pool. Only 7% of the respondents felt that HOV-4 should become HOV-2. One would suspect that most of these individuals owned or rode in two-seat automobiles. Finally, a few respondents expressed concern that motorcycles are not allowed on I-66 during restricted periods. These individuals argued that motorcycles should be classified as high occupancy vehicles since at capacity they carry one or two individuals at most. It is likely that these respondents are not aware that by definition an HOV vehicle is one which carries more than one passenger.

A substantial number of respondents in this group (26.5%) commented that the HOV restrictions were a major problem for tourists, out-of-state drivers, and other nonlocal drivers who might not be familiar with them. Some suggested that out-of-state drivers be granted immunity from the restrictions. Others suggested that nonlocal drivers who were found to be in violation of the restrictions be given a warning rather than a citation for a first-time offense. The portion of this section on sign deficiencies points out additional remarks made by respondents regarding out-of-town drivers.

Finally, as regards other changes in the restrictions, about 10% of the respondents in this group suggested that the restricted periods were too long. While all suggested shortening each of the periods by at least half an hour, the majority suggested that the restricted periods extend from 7 a.m. to 9 a.m. and from 4 p.m. to 6 p.m.

Signing Deficiencies

The reader will remember that the primary purpose of this research was to assess the public's familiarity with and understanding of the HOV variable message sign. Although it has previously been reported here that everyone seems to understand the HOV abbreviation, it should be noted that a substantial number (40.4%) of respondents did offer commentary regarding the I-66 signs. First, 82% of this group, or roughly one-third of all respondents, were opposed to the use of the abbreviation. Alternatives offered were varied, but for the most part

respondents preferred that the word "car pool" be included somewhere on the signs. It became apparent to the author while reading these comments that the reason for the use of an abbreviation to denote the restrictions has not been made clear to a substantial portion of I-66 users. Another portion of this group (14%) felt that signs were not well placed and needed to be posted more in advance of the restricted segment of I-66. This, they said, would especially aid the out-of-town driver while also eliminating the confusion felt by drivers who don't feel they have been provided enough clear information about the restriction until it is too late for them to exit. The remainder of the group of respondents commenting on the signs offered various suggestions regarding preliminary "warning" about the upcoming restricted segment. Several suggested that in addition to the HOV abbreviation, the diamond lane marking symbol used to designate preferential lanes be used more prominently than is currently the case. This too, they said, would be of great benefit to the tourist driver. Others suggested that a sign containing a stronger message than used at present be installed to inform drivers that they are approaching the restricted segment of I-66. Typical suggestions included the use of a color other than white for these signs or a flashing light mounted on the sign. The sign, they said, should contain messages such as "Restricted Area Ahead", "Violators Subject to Fine", or "Last Exit Before Entering HOV Area".

Additional Publicity Needed

A very small percentage of this respondent group commented that media publicity regarding the restrictions on I-66 should continue. Some suggested including the restrictions on the official state highway map while some recommended including HOV information in the motor vehicle registration renewal packet. This would do much, they said, to familiarize motorists on a statewide basis with both the HOV abbreviations and the I-66 restrictions.

Positive Comments

Of the positive comments received, more than half urged that the HOV-4 restriction be continued. There were many compliments praising the Department's efforts on I-66. Of those commenting positively, many felt assured that the restrictions "will just take some getting used to". Many respondents in this category indicated that they were favorably impressed with the new I-66 segment and that the Department should be proud of its efforts. Still others were quite excited about the opportunity to participate in the survey. One such comment was, "It's great to see your sensitivity and polling of opinion." Perhaps the most soothing comment was that "People will catch on in time, so relax."

REFERENCES

- 1. Manual on Uniform Traffic Control Devices for Streets and Highways, U. S. Department of Transportation, Federal Highway Administration, 1978.
- 2. Hummel, John N., "Washington, D.C. Suburban I-66 Unique Compression in Expressway Design," in <u>Civil Engineering</u>, ASCE, December 1982.

OR MORE PERSONS PER VEHICLE HIGH OCCUPANCY VEHICLE

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APPENDIX B

HOV SIGN QUESTIONNAIRE

(Please answer all questions.)

| | | Ci ty | State | | |
|--------------------|---------------------------------|--|---|----------------------------------|--------------------|
| Where do | ou work? | A. Washington, D.C | <u>56.7%</u> c. | | 2.7% |
| | | 3. Northern Virginia | 31.8% | . Other $\frac{8}{-8}$ | 8.8% |
| How many | times each wee | ek do you use I-66? | | | |
| Α. | 1 - 2 2 | 2.4% | D. 11 or more | 10.5% | • • |
| а. | 3 - 5 2 | 8.7% | E. Do not use 1 | 1-66 10.3% | _ |
| c. | 6 - 10 2 | 8.1% | | | |
| What mean | s do you <u>norma</u> | ally take to travel I-66 | • | | |
| Α. | Drive alone | 58.7% | C. Bus | .9% | _ |
| 8. | Carpool | 26.3% | D. Other | 14.1% | _ |
| The new a on signs | bbreviation "} along I-66. / | HOV" is being used by the Please circle the correc | e Virginia Departme t meaning for this | ent of Highways abbreviation. | and Transportation |
| A. | Hospital on | ly vehicles .1% | E. Heed overflo | ow volume . | 1% |
| в. | Heavy overf | low volume .4% | F. None of the | above . | 1% |
| c. | High occupa | ncy vehicles 97% | G. Other $\underline{}$ | 2.2% | |
| ٥. | Hazardous o | verweight vehicles •2 | 2% | | |
| Where did | you first fi | nd out about the term HO | !? | | |
| Α. | Newspaper | 27.6% | E. Community/E | mployee Meeting | 0.0 |
| 3. | Television | 8.1% | F. This Questi | onnaire | 1.0% |
| c. | Radio | 3.5% | G. Saw it on I | -66 | 44.6% |
| 0. | Word of Mou | th6.5% | H. Other | 8.7% | |
| What type | of publicity | on the installation of | such a new sign is | the most helpfo | |
| A. | Newspaper | <u> 36.6%</u> | E. Community/E | mployee Meeting | .4% |
| 3. | Television | 23.2% | F. Public Noti | ce | 3.8% |
| c. | Radio | 12.8% | G. None | . | 6.7% |
| ٥. | Mailers | 9.3% | H. Others | 7.2% | |
| What is y | our general o | pinion of the use of the | new HOV abbreviat | | |
| Α. | In lavor | 26.7% C. Neutr | al | 35.6% | . Other |
| 3. | Opposed _ | 28.7% D. Don't | understand it | 1.8% | |
| | | nter below any suggestion ment's efforts to make it | | | the use of this |

Thank you. Please fold and mail.