

## State of lowa

## WASHINGTON

Origin And Destination
Traffic Study
November 1964


TRAPFIC AND HIGHWAY PLANNING DEPARTMENT DIVISION OF PLANNING

IOWA STATE HIGHWAY COMMISSION
IN COOPERATION WITH THE
UNITED STATES DEPARTMENT OF COMMERCE BUREAU OF PUBLIC ROADS

## INTRODUCTION

During the latter part of July in 1961, the Iowa State Highway Commission, in cooperation with the United States Bureau of Public Roads, conducted an external origin-destination traffic survey in Washington.

The purpose of this survey was to determine the total number and type of vehicles entering or leaving the study area and to obtain origin and destination data from a representative sample of those vehicles.

Factual information of this nature is essential in the planning of streets and highways which will not only serve the needs of local traffic, but which will serve the needs of interstate and intercity traffic as well.

It is not within the scope of this report to make recommendations concerning the revision or construction of routes. It is rather to organize and present the findings of the survey in a manner which will facilitate the determination of traffic needs and thereby provide the basis for future street and highway planning.

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| Central Business |  |
| :--- | :--- |
| District (C.B.D.) | The major business district of |
| a city. |  |
| Cordon Line | A hypothetical line delimiting the |
| area under study and composed of |  |
| traffic interview stations located |  |
| on major traffic arteries at or |  |
| near the corporate limits. |  |



## Histary <br> and <br> Development



## HISTORY

In February of 1836 , several pioneers moved into the area that is now Washington, Iowa. John Black and Adam Ritchey with two brothers and several neighbors, filed claims in the southern part of what was then known as "Slaughter" County. Not the first white men to set foot in this area of Iowa, they had been preceded in 1834 by Joseph Smart who had established an Indian trading post near the mouth of crooked Creek. They were, however, the first settlers in what was to become the town of Washington. They built the first log cabins in that area before permanent boundaries and the permanent name of Washington County were established. In 1837, they were joined by Isaac Pence, Milo Holcomb, and John B. Bullock who also filed claims in this area.

Holcomb and Bullock set up the first mill in Washington County in 1837, on nearby crooked Creek. Two years later, in 1839, Washington was chosen to be the county seat. In the same year, Joseph Adams built the first house within the city limits. It was a double log cabin with one part for living quarters and the other for Adams' blacksmith shop. The second house was built by Daniel Powers for a hotel. Also made of logs, it had two rooms on the ground floor and a loft above.

Rev. J. L. Kirkpatrick, a Methodist minister, organized a religious society in October of 1839. The following year, John Daugherty opened the first store.

The growing population of the new community created a need for postal service. Thomas Baker was selected as the first postmaster, and a few years after his appointment, a permanent post office was built. It was supplied with mail semimonthly by M. Higbee who carried it 42 miles on foot from Wapello in Louisa County.

The first court of law was held on June 17, 1839 in the new county seat by Judge Williams. In the same year, Dr. George H. Stone became the first physician to set up practice in Washington.

The first newspaper was established five years later in 1844 by Lewis F. Walden and J. F. Rice. It was called the

Washington Arqus and was chiefly Democtatic in politics.
In August of 1858, Washington's mail service was improved by the completion of a branch line of the Mississippi and Missouri Railroad.

Smith Wildman Brookhart was born here in 1869. Known as a "dirt farmer," he was twice elected to the U.S. Senate from 1922 to 1925 and from 1927 to 1933.

Washington is a typical Iowa county seat, with the courthouse square in the center of town. The courthouse, a red brick structure with elaborate stone trim, is typical of the 1890 's.

Washington has grown steadily since its beginning and in 1960, its population had reached 6,037 . It is located 34 miles southwest of Iowa City, and is served by a network of paved and graveled roads, including Iowa Highways 1 and 92.

#  <br> <br> STUDY AREA POSITION <br> <br> STUDY AREA POSITION IN THE MIDWEST 



FIGURE $1-1$

STUDY AREA POSITION IN IOWA



FIGURE $1-2$

Table 1-1
MOTOR VEHICLE REGISTRATION IN WASHINGTON COUNTY FROM 1939 THROUGH 1963

| Year | Autos | Trucks | Motorcycles | Total | Percent <br> Change |
| :--- | ---: | ---: | :---: | :---: | :---: |
| 1939 | 5631 | 797 | 7 | 6435 |  |
| 1940 | 5753 | 909 | 8 | 6670 | 3.65 |
| 1941 | 5937 | 1047 | 12 | 6996 | 4.89 |
| 1942 | 5450 | 993 | 13 | 6456 | -7.72 |
| 1943 | 5205 | 988 |  |  |  |
| 1944 | 5077 | 1021 | 23 | 6206 | -3.87 |
| 1945 | 4993 | 1079 | 22 | 6121 | -1.37 |
| 1946 | 5271 | 1250 | 37 | 6094 | -44 |
|  |  |  |  | 6558 | 7.61 |
| 1947 | 5688 | 1416 | 45 | 7149 | 9.01 |
| 1948 | 6082 | 1626 | 64 | 7772 | 8.71 |
| 1949 | 6570 | 1826 | 64 | 8460 | 8.85 |
| 1950 | 6861 | 1937 | 60 | 8858 | 4.70 |
| 1951 | 6981 | 2017 | 62 | 9060 | 2.28 |
| 1952 | 6702 | 2053 | 51 | 8806 | -2.80 |
| 1953 | 6844 | 2136 | 58 | 9038 | 2.63 |
| 1954 | 6904 | 2152 | 63 | 9119 | .90 |
|  |  |  |  |  |  |
| 1955 | 7154 | 2197 | 53 | 9404 | 3.13 |
| 1956 | 7140 | 2253 | 73 | 9466 | .66 |
| 1957 | 7282 | 2244 | 75 | 9601 | 1.43 |
| 1958 | 7398 | 2282 | 75 | 9755 | 1.60 |
| 1959 | 7726 | 2373 | 78 | 10177 | 4.33 |
| 1960 | 7742 | 2388 | 64 | 10194 | .17 |
| 1961 | 7895 | 2430 | 68 | 10393 | 1.95 |
| 1962 | 8036 | 2487 | 68 | 10591 | 1.91 |
| 1963 | 8278 | 2547 | 73 | 10898 | 2.90 |

FIGURE $1-3$
MOTOR VEHICLE REGISTRATIONS IN WASHINGTON COUNTY FROM 1939 THROUGH 1963


Table 1-2

POPULATION OF WASHINGTON

| Census <br> Year | Washington <br> Population | Percent Change <br> 10 Year Period | Percent Change <br> Since 1900 |
| :---: | :---: | :---: | :---: |
| 1900 | 4,255 |  |  |
| 1910 | 4,380 | 2.94 | 2.94 |
| 1920 | 4,697 | 7.24 | 10.39 |
| 1930 | 4,814 | 2.49 | 13.14 |
| 1940 | 5,227 | 8.60 | 22.84 |
| 1950 | 5,902 | 12.91 | 38.71 |
| 1960 | 6,037 | 2.29 | 41.88 |

Table 1-3

POPULATION OF WASHINGTON COUNTY

| Census <br> Year | Washington Co. <br> Population | Percent Change <br> 10 Year Period | Percent Change <br> Since 1890 |
| :---: | :---: | :---: | :---: |
| 1890 | 18,468 |  |  |
| 1900 | 20,718 | 12.18 | 12.18 |
| 1910 | 19,925 | -3.83 | 7.89 |
| 1920 | 20,421 | 2.49 | 10.58 |
| 1930 | 19,822 | -2.93 | 7.33 |
| 1940 | 20,055 | 1.18 | 8.59 |
| 1950 | 19,557 | -2.48 | 5.90 |
| 1960 | 19,406 | -.77 | 5.08 |



An origin-destination survey is a comprehensive study of trip termini with special emphasis being placed on the origin, destination, and routes of travel between the terminal points of each trip. The ultimate goal of such a survey is to obtain factual evidence of traffic patterns in a given locality. This information can then be used in the development of an efficient and practical street or highway program.

In order to obtain accurate information, it is necessary to interview vehicle drivers at strategically-located interview stations. In Washington, interview stations were located at or near the corporate limits on each of the primary highways. Secondary roads entering Washington were given station code numbers for the purpose of establishing routes of entry or exit to or from the study area. The study area was divided into nine internal tracts using major streets or highways, in most cases, as the dividing lines between tracts. A map showing the location of tract boundary lines, interview stations, and code stations will be found on page 12.

Interviewing in Washington was done during the last week of July in 1961. Interviewing was done over a sixteen-hour period from 6 A. M. to 10 P.M. at each station. Each vehicle passing through an interview station was stopped and the driver was asked the origin, destination, route of entry or exit, purpose of the trip, and the place where the vehicle was normally kept or garaged. In addition, interviewers also noted and recorded the type of vehicle, number of occupants, direction of travel and the state or Iowa county in which the vehicle was registered.

Mechanical traffic recorders were placed at the location of each interview station and were operated continuously for a period of five weekdays, including the day on which the interviewing was done. Manual vehicle classification counts were taken at a later date and together with the data provided by mechanical recorders were used to expand the interview data to twenty-four-hour, average July weekday traffic for 1961.

At the conclusion of the field work, the data pertaining to each trip was converted into code and punched on tabulating cards.

These cards were then sorted and tabulated by machine according to tract of origin or destination and the station or stations through which each trip passed.

In an external survey of this type, all trips are placed in two main categories which are composed of "external local trips" and "external through trips."

External local trips have only one terminal (which may be either origin or destination) within the study area and therefore pass through only one interview station while enroute to their destination。

Trips which have neither origin nor destination within the study area, but must pass through it enroute to another destination, are classified as external through trips. Trips in this category must pass through at least two interview stations while enroute to their destination.

Traffic flow charts indicating trip termini by tract of origin or destination are included in this report along with a series of desire line charts showing desired routes of travel in straight lines between interview stations and internal tracts.



Part Three

# FIGURE 3-1 <br> DISTRIBUTION OF TRIPS 

INTERNAL TRACTS


THROUGH TRIPS



CENTRAL BUSINESS DISTRICT


EXTERNAL

The chart at left graphically illustrates some of the more significant traffic volumes derived from the Washington origin-destination traffic survey. An average of 6,340 trips per day passed through the external cordon line of interview stations surrounding the study area during the survey period in July of 1961 .

1,636 trips or 25.80 percent of the total number of trips were between external areas and the central business district.

2,851 trips or 44.97 percent of the total number of trips were between external areas and internal areas exclusive of the central business district.

1,853 trips or 29.23 percent of the total number of trips were through trips which passed through Washington enroute to another destination。

Table 3－1
VEHICLE TYPE SUMMARY

Average July Weekday Traffic 1961

| External <br> Station <br> Location | Passenger <br> Cars and <br> Pickups | Single <br> Unit <br> Trucks | Truck <br> Combi－ <br> nations | Total | No。of <br> Inter－ <br> Views | Percent <br> Inter－ <br> viewed |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Ia。92 E。 | 2655 | 411 | 145 | 3211 | 2563 | 79.82 |
| Ia。1 S．W． | 1494 | 109 | 89 | 1692 | 1429 | 84.46 |
| Ia。1 \＆ |  | 323 | 203 | 3135 | 2890 | 91.66 |
| Ia。92 N．W． | 2627 | 6776 | 843 | 437 | 8056 | 6882 |
| Total | 85.43 |  |  |  |  |  |

The above table shows the total traffic passing through interview stations located on major traffic arteries leading to Washington．All totals include duplicate through trips．

## $7 r a f f i c$

## Mowements



The following traffic flow charts illustrate the internal dispersion of trips between points of origin and/or destination through the stations indicated. These charts are not intended to show exact routes, but rather to show trip volume by tract of origin or destination and the number of trips passing through each external interview station。 Trip origins and destinations are not differentiated and the tract or station totals shown may be considered as either origin or destination.

The adjoining table of statistics across from Figures 4-1 through 4-3 shows the number of trips to or from each external interview station and tracts within the study area along with the percent of the total number of trips to each area.

Table 4-1
INTERNAL DISPERSION OF TRIPS PASSING THROUGH STATION 726, IOWA 92 EAST

| Trips with internal origin or destination | 1846 | 57.49 |
| :--- | ---: | ---: |
| Trips with external origin and destination | 1365 | 42.51 |
| Grand total of all trips through Station 726 | 3211 | 100.00 |
| Trips with origin or destination in C.B.D. | 692 | 21.55 |
| Number of interviews (16 hours) | 2563 | 79.82 |
| Percent of total traffic through all interview |  |  |
| stations |  |  |

External Local Trips

| Tract | Trips | Percent | Tract | Trips Percent |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
| 1 | 692 | 21.55 | 6 | 149 | 4.64 |
| 2 | 388 | 12.08 | 7 | 62 | 1.93 |
| 3 | 169 | 5.26 | 8 | 129 | 4.02 |
| 4 | 94 | 2.93 | 9 | 80 | 2.49 |
| 5 | 83 | 2.59 | Total | 1846 | 57.49 |

## External Through Trips

| Station | Trips | Percent | Station | Trips | Percent |
| ---: | ---: | :---: | :---: | :---: | :---: |
| 726 | - | - | 733 | - | - |
| 727 | 359 | 11.18 | 734 | 16 | .50 |
| 728 | 940 | - | - | 735 | - |
| 729 | - | .03 | 736 | 16 | -50 |
| 730 | 1 | - | 737 | 24 | .75 |
| 731 | - | .19 | 738 | 3 | .09 |
| 732 | 6 |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |



LEGEND
TRACT BOUNDARY LIN CORPORATION LINE


FIGURE 4-I
INTERNAL DISPERSION OF TRIPS

## PASSING THROUGH

 STATION 726, IOWA 92 EASTOF THE
WASHINGTON URBAN AREA

Table 4-2
INTERNAL DISPERSION OF TRIPS PASSING THROUGH STATION 727, IOWA 1 SOUTHWEST

|  | Trips Percent |  |
| :--- | ---: | ---: |
| Trips with internal origin or destination | 915 | 54.08 |
| Trips with external origin and destination | 777 | 45.92 |
| Grand total of all trips through station 727 | 1692 | 100.00 |
| Trips with origin or destination in C.B.D. | 338 | 19.98 |
| Number of interviews (16 hours) <br> Percent of total traffic through all interview <br> stations | 1429 | 84.46 |

External Local Trips

| Tract | Trips | Percent | Tract | Trips | Percent |
| ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
| 1 | 338 | 19.98 | 6 | 98 | 5.79 |
| 2 | 121 | 7.15 | 7 | 21 | 1.24 |
| 3 | 73 | 4.31 | 8 | 104 | 6.15 |
| 4 | 69 | 4.08 | 9 | 30 | 1.77 |
| 5 | 61 | 3.61 |  |  |  |
|  |  |  | Total | 915 | 54.08 |

## External Through Trips

| Station | Trips | Percent | Station | Trips | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 726 | 359 | 21.22 | 733 | - | - |
| 727 | - | - | 734 | 1 | .06 |
| 728 | 417 | - | - | 735 | - |
| 729 | - | - | 737 | - | - |
| 730 | - | 738 | - | - |  |
| 731 | - |  | - | - |  |
| 732 |  |  |  |  |  |
|  |  |  | 777 | 45.92 |  |


FIGURE 4-2
INTERNAL DISPERSION OF TRIPS
PASSING THROUGH
STATION 727, IOWA I SOUTHWEST
OF THE
WASHINGTON URBAN AREA

Table 4-3
INTERNAL DISPERSION OF TRIPS PASSING THROUGH STATION 728, IOWA 1 AND 92 NORTHWEST

|  | Trips | Percent |
| :--- | ---: | ---: |
| Trips with internal origin or destination | 1726 | 54.74 |
| Trips with external origin and destination | 1427 | 45.26 |
| Grand total of all trips through Station 728 | 3153 | 100.00 |
| Trips with origin or destination in C.B.D. | 606 | 19.22 |
| Number of interviews (16 hours) | 2890 | 91.66 |
| Percent of total traffic through all interview |  |  |
| stations |  |  |

## External Local Trips

Tract Trips
Percent
Tract
Trips
Percent

| 1 | 606 | 19.22 |
| ---: | ---: | ---: |
| 2 | 232 | 7.36 |
| 3 | 156 | 4.95 |
| 4 | 109 | 3.46 |
| 5 | 125 | 3.96 |

$6 \quad 138$
44
4.38

7
8
230

1. 39

9
86
7.29
2.73

Total
1726
54.74

External Through Trips

| Station | Trips | Percent | Station | Trips | Percent |
| :---: | :---: | :---: | :---: | :---: | ---: |
| 726 | 940 | 29.81 | 733 | 1 | .03 |
| 727 | 417 | - | - | 734 | 5 |
| 728 | - | - | 735 | 1 | .16 |
| 729 | - | - | 736 | 4 | .03 |
| 730 | 2 | .06 | 738 | 54 | 1.72 |
| 731 | 2 | .06 |  | 1 | .03 |
| 732 |  |  |  |  |  |
|  |  |  |  | 1427 | 45.26 |



Legend
TRACT BOUNDARY LINE
CORPORATION LINE

GRAPHIC SCALE
2000 TRIPS
1000 TRIPS
500 TRIPS
250 TRIPS
AVERAGE JULY WEEKDAY TRAFFIC 196

FIGURE 4-3 INTERNAL DISPERSION OF TRIPS

PASSING THROUGH
STATION 728, IOWA I AND 92 NORTHWEST
OF THE
WASHINGTON URBAN AREA

## DESIRE LINE CHARTS

The following desire line charts illustrate desired routes of travel between external stations and internal tracts without regard to existing streets or actual routes traveled. Charts such as these graphically illustrate the travel desires of motorists and frequently point out the need for improvement of existing routes or construction of new ones to satisfy the demands of traffic.

This series of desire line charts illustrates the travel desires of external local trips and external through trips. The top overlay shows travel desires of trips between external stations and the central business district. The second overlay shows the travel desires of through trips between external stations. The base map shows travel desires between external stations and internal tracts other than the central business district。


FIGURE 4-5

OTHER EXTERNAL ENTRANCES
TRACT BOUNDARY LINES $\ldots \ldots-\ldots$ CORPORATION LINE $\qquad$

FIGURE 4-6
DESIRE LINES OF TRAVEL OF TRIPS TO OR FROM
EXTERNAL ENTRANCES OF THE
WASHINGTON URBAN AREA AND
INTERNAL TRACTS

Table 4-4 on the adjoining page shows a tabulation of the number and percent of those trips which had termini in municipalities in Washington County, rural areas within the county, other counties in Iowa and other states.

The following traffic flow charts illustrate the external termini of all trips which passed through interview stations in Washington during the 1961 origin-destination survey.

Figure 4-7 shows the external termini of all trips which originated or terminated beyond Washington County. Those trips having terminal points in other states are shown as entering or leaving Iowa on routes which are most direct to the study area. All routes shown are approximate rather than exact and should be interpreted as such.

Figure $4-8$ is a continuation of Figure $4-7$ and shows the external termini of those trips which originated or terminated in Washington county beyond the corporate limits of the Washington urban area.

Table 4-4
SUMMARY OF EXTERNAL TRIP TERMINI

Average July Weekday Traffic 1961

\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[t]{3}{*}{Origin or Destination} \& \multicolumn{2}{|c|}{\[
\begin{gathered}
\text { Iowa } 92 \\
\text { East }
\end{gathered}
\]} \& \multicolumn{2}{|l|}{Iowa 1 Southwest} \& \multicolumn{2}{|l|}{Iowa 1 \& 92 Northwest} \\
\hline \& \multicolumn{2}{|l|}{Station 726} \& \multicolumn{2}{|l|}{Station 727} \& \multicolumn{2}{|l|}{Station 728} \\
\hline \& Vol. \& \% \& Vol. \& \% \& Vol. \& \% \\
\hline \begin{tabular}{l}
Ainsworth \\
Brighton \\
Crawfordsville \\
Haskins \\
Kalona \\
Richmond \\
Riverside \\
Rubio \\
Wellman \\
West Chester
\end{tabular} \& \[
\begin{array}{r}
552 \\
182 \\
27 \\
20
\end{array}
\] \& \[
\begin{array}{r}
17.19 \\
5.67 \\
.84 \\
.62
\end{array}
\] \& 502

11 \& 29.67

.65 \& $$
\begin{array}{r}
374 \\
14 \\
29 \\
279 \\
253
\end{array}
$$ \& \[

$$
\begin{array}{r}
11.86 \\
.44 \\
.92 \\
\\
8.85 \\
8.03
\end{array}
$$
\] <br>

\hline Towns Total \& 781 \& 24.32 \& 513 \& 30.32 \& 949 \& 30.10 <br>
\hline Rural Total \& 680 \& 21.18 \& 315 \& 18.62 \& 428 \& 13.57 <br>
\hline Other Counties \& 1050 \& 32.70 \& 775 \& 45.80 \& 1480 \& 46.94 <br>
\hline Out-of-State \& 700 \& 21.80 \& 89 \& 5.26 \& 296 \& 9.39 <br>
\hline Grand Total \& 3211 \& 100.00 \& 1692 \& 100.00 \& 3153 \& 100.00 <br>
\hline
\end{tabular}

FIGURE 4-7
EXTERNAL DISPERSION OF TRIPS
PASSING THROUGH INTERVIEW STATIONS
IN WASHINGTON TO OR FROM AREAS BEYOND


FIGURE 4-8
EXTERNAL DISPERSION OF TRIPS PASSING THROUGH INTERVIEW STATIONS

IN WASHINGTON TO OR FROM AREAS WITHIN WASHINGTON COUNTY


GRAPHIC SCALE

|  | 5000 | TRIPS |
| :---: | :---: | :---: |
|  | 3000 | TRIPS |
| , \% $4 \times$ | 2000 | TRIPS |
| 納 | 1000 | TRIPS |

LEGEND
STATION 726, IOWA 92 EAST STATION 728, IOWA I N. \& IOWA 92 W. STATION 727, IOWA I S.W.

## TRAFFIC VOLUMES ON PRIMARY HIGHWAYS

IN AND NEAR WASHINGTON

The following charts on pages 34 and 35 illustrate the average annual daily traffic on rural primary highways entering or leaving Washington and on primary extensions and major streets within the study area.

The data shown in Figures $4-9$ and $4-10$ was obtained from traffic counts rather than interviews and indicates average annual daily traffic for 1962 and 1963 rather than average July weekday traffic for 1961.


GRAPHIC SCALE


FIGURE 4-9
TRAFFIC VOLUMES
ON RURAL PRIMARY HIGHWAYS ENTERING THE WASHINGTON URBAN AREA
AVERAGE ANNUAL DAILY TRAFFIC-1962


FIGURE $4-10$
TRAFFICVOLUMES
O N PRIMARY ROADEXTENSIONS AND MAJOR STREETS IN THE WASHINGTON URBAN AREA

AVERAGE ANNUAL DAILY TRAFFIC 1963

Appendix


## INTERPRETATION OF TABLE A-1

The following table shows a compilation of the 1961 average July weekday traffic for Washington.

Table A-1 shows the directional movement of external trips to, from, and through Washington Tract or station origin may be found in the vertical columns along either side of the table. Tract or station destination may be found in the horizontal columns across the top or bottom of the table. In Table A-l it will be necessary to add origins to destinations in order to determine the number of trips between two points.

ORIGIN AND DESTINATION OF TRIPS

## ENTERING OR LEAVING

THE WASHINGTON URBAN AREA
TABLE A-I
AVERAGE JULY WEEKDAY TRAFFIC-196I



Table A-3
TRIP PURPOSE OF VEHICLE DRIVERS PASSING THROUGH
STATION 727, IOWA 1 SOUTHWEST OF THE
WASHINGTON URBAN AREA
Average July Weekday Traffic 1961

| Trip Purpose $\qquad$ | Work | Transact Business | During Work | $\begin{gathered} \text { Trip } \\ \hline \text { Medical } \\ \text { or } \\ \text { Dental } \\ \hline \end{gathered}$ | Purpose | - Destina <br> Recreation Social or cultural | Eat | Shop | $\begin{array}{\|l\|} \hline \text { Serve } \\ \text { Passen- } \\ \text { gers } \\ \hline \end{array}$ | Home | Total | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Work |  | 8 | 2 | 1 |  | 4 |  |  |  | 113 | 128 | 7.57 |
| Transact <br> Business | 5 | 16 | 3 |  |  | 1 |  |  |  | 134 | 159 | 9.40 |
| During Work |  |  | 359 |  |  |  |  |  |  | 4 | 363 | 21.45 |
| Medical or Dental |  |  |  |  |  |  |  |  |  | 30 | 30 | 1.77 |
| School |  |  |  |  |  | 1 |  |  |  | 9 | 10 | . 59 |
| Recreation Social or Cultural | 1 | 2 |  | 1 | 2 | 34 | 1 | 1 |  | 185 | 227 | 13.42 |
| Eat |  |  |  |  |  | 3 |  |  |  | 4 | 7 | .41 |
| Shop |  |  |  |  |  | 1 |  | 1 |  | 73 | 75 | 4.43 |
| Serve Passengers |  |  |  |  |  | 1 |  |  |  | 14 | 15 | . 89 |
| Home | 134 | 205 | 4 | 15 | 13 | 243 | 4 | 49 | 11 |  | 678 | 40.07 |
| Total | 140 | 231 | 368 | 17 | 15 | 288 | 5 | 51 | 11 | 566 | 1692 | 100.00 |
| Percent | 8.27 | 13.65 | 21.75 | 1.01 | .89 | 17.02 | .30 | 3.01 | .65 | 33.45 | 100.00 |  |

TRIP PURPOSE OF VEHICLE DRIVERS PASSING THROUGH STATION 728, IOWA 1 AND 92 NORTHWEST OF THE WASHINGTON URBAN AREA

Average July Weekday Traffic 1961


TRIP PURPOSE OF VEHICLE DRIVERS PASSING THROUGH
ALL INTERVIEW STATIONS
Table A-5
TO OR FROM THE WASHINGTON URBAN AREA
(Duplicate Through Trips Removed)
Average July Weekday Traffic 1961

| Trip Purpose - Destination |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \text { Trip Purpose } \\ \text { Origin } \\ \hline \end{gathered}$ | Work | Transact Business | During Work | Medical or Dental | School | Recreation Social or Cultural | Eat | Shop | Serve Passengers | Home | Total | Percent |
| Work |  | 35 | 7 | 1 | 1 | 12 | 6 |  | 3 | 392 | 457 | 7.21 |
| Transact <br> Business | 27 | 65 | 1 |  |  | 8 |  | 2 |  | 481 | 584 | 9.21 |
| During Work | 4 |  | 1547 |  |  |  |  | 1 |  | 5 | 1557 | 24.56 |
| Medical or Dental |  |  |  |  |  |  |  | 1 |  | 66 | 67 | 1.06 |
| $\stackrel{1}{\sim}$ S chool |  | 1 |  |  | 2 | 1 |  |  |  | 21 | 25 | . 39 |
| Recreation Social or Cultural | 1 | 11 |  | 1 | 1 | 161 | 2 | 6 | 1 | 667 | 851 | 13.42 |
| Eat | 7 | 3 |  |  |  | 5 |  |  |  | 39 | 54 | . 85 |
| Shop |  | 1 |  |  |  | 9 |  | 3 |  | 279 | 292 | 4.61 |
| Serve Passengers | 2 |  |  |  |  | 2 |  |  | 11 | 29 | 44 | .69 |
| Home | 426 | 672 | 10 | 53 | 24 | 901 | 47 | 234 | 42 |  | 2409 | 38.00 |
| Total | 467 | 788 | 1565 | 55 | 28 | 1099 | 55 | 247 | 57 | 1979 | 6340 | 100.00 |
| Percent | 7.37 | 12.43 | 24.68 | .87 | . 44 | 17.33 | . 87 | 3.90 | . 90 | 31. 21 | 100.00 |  |

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