

For Ben Libert

Jack Lansing

THE TRAVEL MARKET

1958

1959-1960

1961-1962

by

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PREFACE

This volume reproduces exactly three reports prepared by the staff of the Survey Research Center for submission to sponsors of *its series* of National Travel Market Surveys. These reports are as follows:

The Travel Market 1958
The Travel Market 1959-1960
The Travel Market 1961-1962

Three earlier reports for the years 1955, 1956, and 1957 have also been reprinted and are available in a companion volume. A third volume which summarizes the principal findings of the series of studies is scheduled for publication in 1964. It will contain a detailed combined index to the series of three volumes.

THE TRAVEL MARKET 1958

A Report on the Vacation Travel,
Travel Patterns and Attitudes
of American Families

Including
a Special Section
on Attitudes Toward Jet
and Air Travel

John B. Lansing

Sponsored by:

BOEING AIRPLANE COMPANY

and

TIME, The Weekly Newsmagazine



SURVEY RESEARCH CENTER
Institute For Social Research
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INTRODUCTION

This report describes the findings of the 1958 National Travel Market Survey conducted by the Survey Research Center of the University of Michigan and sponsored by the Boeing Airplane Company and Time, The Weekly Newsmagazine. This survey is the fourth in a series of National Travel Market Surveys begun in 1955. Sponsors of earlier surveys have included the Port of New York Authority, the Pennsylvania Railroad, and the New York Central System.

Purpose of the 1958 Survey

The 1958 Survey represents a departure from the earlier surveys in the topics covered. More emphasis has been placed on motives and attitudes relevant to people's travel in the 1958 Survey than in earlier years, and less emphasis has been placed on the frequency of travel by different individuals. Those responsible for planning the survey felt that, in general, more could be learned in 1958 by exploring new topics than by measuring year-to-year trends in answers to traditional questions.

A large part of the 1958 Survey is directly or indirectly related to the introduction of jet aircraft in commercial passenger service. Questions about reactions to the idea of jet travel approach the topic directly. Reactions to height and speed are obviously relevant. Experience with and attitudes toward overseas travel are related to the prospects for increased travel by jet plane to Europe and other continents.

Other topics covered — and, in some instances, explored only briefly — relate to such questions as, how do people decide where to go on their vacation? how do people decide when to take their next vacation trip? how do they pay for their trips? what kind of lodgings do they use and why? what experience have they had with car rental service?

The Sample

The sample used in the 1958 Survey was a probability sample similar to that used in earlier years. One personal interview was taken in every family in the sample. Within the family, the respondent was either the husband or the wife. The choice between the two was determined in advance of the interview on a random basis. No interviews were taken with any additional "extra" adults in the family, such as aged relatives or grown children living with their parents.

In all, 1456 interviews were taken in late May and June 1958. Acceptable interviews were obtained from 86 per cent of all designated respondents in the sample. That is, 14 per cent were lost because the respondent refused to cooperate, could not be found at home after repeated calls, or was not interviewed for some other reason.

The Staff

This study was carried out by the staff of the Survey Research Center, a division of the Institute for Social Research of the University of Michigan. The Institute is under the direction of Rensis Likert while the director of the Center is Angus Campbell. This study was carried out in the Economic Behavior Program of the Center, George Katona, director. The Center's field staff is headed by Charles Cannell, and the sampling section by Leslie Kish. For this project, study design, analysis, and report writing were the responsibility of John B. Lansing. He was assisted by Elizabeth Goodwin and Robert Hsieh.

SUMMARY OF MAJOR FINDINGS

Air Travel

As of June 1958, 29 per cent of all adults had ever taken an air trip. Three years earlier, a comparable survey showed only 24 per cent of all adults had experienced air travel.

The higher the family income of an individual, the more likely he is to have taken an air trip at some time in his life.

Only nine per cent of all adults took an air trip in the twelve months ending in June 1958. The proportion who took an air trip in a period of twelve months was about 7 per cent in 1955.

People who have experienced air travel have no reluctance to fly high. Only one person in 20 of those who have flown says he definitely prefers not to fly high.

Almost all experienced air travelers also say they like to have a plane fly fast, or have no objection to it. Fewer than one in 20 expresses a definite dislike of flying fast.

Attitudes Toward Travel By Jet Plane

There was little change in people's reactions to the idea of traveling by jet plane between November 1957 and June 1958. One third would like the idea, and about one half say they would not like it.

The people who react most favorably to the idea of jet travel are those most likely to be in a position to travel by jet. Seven out of ten of those who have ever flown say they would like or accept jet travel, compared to three out of ten of those who have never flown. People tend to be favorably disposed to jets if they have a high income, if they are well-educated, if they are young, and if they are men.

Many people in June 1958 had vague or incorrect ideas about when jets would be in commercial service. Only one in five of those who says he would not like jet travel knows that jets are not yet in commercial service in this country but will be within two years. Being poorly informed about this situation seems to be associated with negative reactions to jet travel.

Overseas Travel Experience

One adult American out of five has been overseas at some time in his life. Of those who have been abroad, about two out of three were overseas in the armed forces and never have been overseas as civilians.

Of those who have been overseas, 60 per cent have been to Europe. Many also report visits to the Pacific islands or Asia or to Africa. All of these areas have been visited by many men while in the armed forces.

Whether a person has been overseas as a civilian depends on his income. The higher the income, the more likely he is to have been overseas as a civilian.

Attitudes Toward Travel

Nearly everyone can think of some place in the world he would like to see. Of all the places people say they would like to go "if they had their choice of any place in the world", Europe, or some part of Europe, is mentioned most frequently. Among specific places, France

and Hawaii lead in the number of mentions. But, when questioned a little more realistically on the "way they would like to spend their vacation this year", people tend to replace distant shores with places nearer home.

People feel that travel in foreign countries is more exciting and less relaxing than travel in the United States. Travel abroad is fascinating and stimulating but also expensive, difficult, and even dangerous.

The strongest motive for European travel is sight-seeing and general curiosity. But, four other principal motives are — the desire to have a good time; personal ties; conspicuous consumption; and a general desire to travel.

Most people find auto travel enjoyable though a substantial minority find it dull. And, a few find it expensive or dangerous.

The majority of people, including those who have never flown, also react positively to plane travel but for different reasons. It is "fast", "stimulating", "adventurous". However, a considerable group react negatively in terms of danger and fear, and a few find it "expensive".

Vacation Travel

Three adults out of four have at some time taken a vacation trip to a point 100 miles or more away. The proportion of adults who have ever taken a vacation trip increases as income increases.

In June 1958, 43 percent of all adults were expecting to take a vacation trip within the next twelve months. The proportion of individuals planning vacation trips is considerably higher among upper income groups than among low income groups.

Where people's relatives live is a major factor in where they go on vacation trips. People may also select their destination with sight-seeing in mind; if so, they tend to vary their destination from year to year. One out of four of the adults who take vacation trips always goes to the same place.

Of those planning a vacation trip, three out of four planned to leave before September 1, 1958. Few people in June 1958 had plans for trips in the following winter or spring.

Most of these vacation planners (about seven out of ten) have at least some choice as to when they will vacation. About half of them say that they have freedom of choice — with no limitations. Those whose choice is limited refer most often to the restrictions imposed by the job of the head of the family or of some other person who is working. School attendance of their children limits the choice of some people.

Of those planning a vacation trip in the next twelve months, the majority expected to go by automobile. Use of common carriers, especially railroads and airlines, increases as the distance to the destination increases.

None of those who were planning a vacation trip by common carrier intended to use a pay later plan. Half of those planning vacation trips intended to pay for them out of current income. Most of the others intended to use money saved up specially or other savings.

Lodgings

Six adults out of ten have stayed in a motel at some time, nearly as many have stayed in a hotel, and one in four has stayed in a tourist home. Experience with different types of lodgings broadens as income increases. Most people, with experience of more than one type of lodging,

prefer motels, primarily because they like their physical arrangement and their informality as compared to hotels.

Car Rentals

Seven per cent of all adults say they have at some time rented a car. Of those from families with incomes over \$7500, 16 per cent have had experience with car rentals.

In an investigation of attitudes toward air travel a logical point of beginning is to ask about the extent to which people are familiar with air travel through their own experience. The 1958 Survey, like its predecessors, contains data on this topic. Those who have experienced air travel were asked about their reactions to flying high and fast, and their responses are covered in the second part of this chapter.

Use of Air Last Year and in Earlier Years

The proportion of the adult population who have ever taken an air trip is increasing steadily. In June 1958 about 29 per cent of all adults had experienced air travel. This statistic had increased in the three years from 1955 to 1958 by 5 per cent, or at a rate of just under two per cent a year.

Table 1

Air Travel History	Proportion of Adult Population		
	Travel Surveys of:		
	1955	1957	June 1958
Has taken an air trip	24%	28%	29%
Never has taken an air trip	75	72	70
Not ascertained	1	*	1
Total	100%	100%	100%
Number of adults interviewed	8485	3149	1456

*Less than 0.5 per cent

Note: Data for 1958 exclude "extra" adults other than the head of a family or his wife. Earlier investigations indicate that this omission is not likely to be important for the reason that the group omitted does not differ greatly from the rest of the population in experience with air travel.

The higher a person's income, the more likely he is to have taken an air trip at some time in his life (Table 2). Of those adults from families with incomes below \$3,000, 13 per cent have taken an air trip. Of those from families over \$7,500, 55 per cent have taken an air trip. In other words, only a few people at the bottom of the income distribution have taken an air trip, but more than half of the people in the upper part of the distribution have taken such a trip.

Only about a third of those who have taken an air trip at some time in their lives took one in the last 12 months. The proportion of the population who take an air trip in a year also has been rising slowly, but even in June 1958 only 9 per cent of all adults reported that they had taken an air trip in the preceding 12 months (Table 3). For most people who do occasionally fly, trips by air are rare events. The increase in the proportion of all adults who take an air trip in a period of one year was from 7 per cent in 1955 to 9 per cent in 1958.

Table 2

<i>Air Travel History</i>	<i>Proportion of Adult Population, June 1958</i>				
	<i>Family Income</i>				
	<i>All</i>	<i>Under \$3,000</i>	<i>\$3,000-4,999</i>	<i>\$5,000-7,499</i>	<i>\$7,500 and over</i>
Has taken an air trip	29%	13%	22%	32%	55%
Never has taken an air trip	70	86	77	68	44
Not ascertained	1	1	1	*	1
Total	100%	100%	100%	100%	100%

* Less than 0.5 per cent

Table 3

<i>Use of Air "Last Year"</i>	<i>Proportion of Adult Population</i>			
	<i>Travel Surveys of:</i>			
	<i>1955</i>	<i>1956</i>	<i>1957</i>	<i>June 1958</i>
Took one or more air trips "last year"***	7%	7%	9%	9%
Did not take an air trip	91	92	90	91
Not ascertained	2	1	1	*
Total	100%	100%	100%	100%
Number of adults interviewed	8485	5255	3149	1458

* Less than 0.5 per cent

***The question referred to the use of air in the 12 months prior to interview.

Note: Data for 1958 exclude "extra" adults other than head of a family or his wife.

In any given year, of those adults who take an air trip most take only one or two trips. (By a trip is meant a round trip). More people travel for non-business than for business reasons, but the business travelers take more trips. More people take first class flights than coach flights.

Detailed information from the June 1958 Survey on all of these points is shown in the next table. Of the 9.0 per cent who took a trip "last year", 7.1 went first class and 3.0 went by coach, including, by implication, 1.1 per cent who went both coach and first class. Of the 7.1 per cent who went first class, 3.7 went on business and 4.1 took at least one non-business trip, including, by implication, 0.7 who took both kinds. Of the 3.0 per cent who went by coach, 0.8 went on business and 2.2 on non-business trips, the implication being that very few people took both business and non-business trips by coach.

These categories are further subdivided by number of trips of each of the four main types (first class and coach, business and non-business). Of the 3.7 per cent who traveled first class on business, 1.5 per cent took one such trip, 0.6 took two such trips, 0.7 took three such trips, and so forth. It is particularly worth noting that nearly all of those who took coach flights for non-business reasons took only one such flight (1.8 out of the 2.2 per cent took only one such flight).

Table 4

Class, Number, and Purpose of Flights Taken in Last 12 Months		Per Cent of All Adults
Took an air trip in last 12 months		9.0%
Took first class flights		7.1%
Took business, first class flights		3.7%
1 flight	1.5%	
2	0.6	
3	0.7	
4-5	0.3	
6 or more	0.3	
Not ascertained	0.1	
Took non-business, first class flights		4.1%
1 flight	3.0%	
2	0.7	
3	0.3	
4-5	0.1	
6 or more	0.1	
Not ascertained	0.1	
Took first class flights, purpose not ascertained		0.1%
Took coach flights		3.0%
Took business, coach flights		0.8%
1 flight	0.6%	
2	0.1	
3	0.1	
4 or more	•	
Not ascertained	0.1	
Took non-business, coach flights		2.2%
1 flight	1.8%	
2	0.3	
3	•	
4 or more	0.1	
Not ascertained	0.1	
Took coach flights, purpose not ascertained		0.1%

*Less than 0.5 per cent

Reactions to Height and Speed

Two of the principal characteristics of jet planes are that they fly higher and faster than those now in commercial use. How are people likely to react to the idea of going higher and faster? One way to get at this question is to talk to people who have had experience with air travel and ask them how they react to speed and height. The following questions were asked of those who have ever taken a trip to a place 100 miles or more away by air:

"Some people say that the higher a plane goes the better they like it, while others don't like to fly high. How do you feel?"

"Why is that?"

"Some people say that the faster a plane flies the better they like it, while others don't like to fly fast. How do you feel?"

"Why do you say so?"

About half of the people who have flown report that they do not care whether a plane flies high or not. Height, as they have experienced it, makes no difference to them. Of those who do express some feeling one way or the other, more like to fly high than dislike it. Thirty-three per cent of those responding say they have a preference for flying high, and, of the 33 per cent, 18 per cent state a strong preference. Only 13 per cent say that they do not like to fly high, including only 5 per cent who express strong feelings on the matter. Thus, most people who fly either have no definite objections to flying high or, actually, like to do so. In this respect there is no difference between people who took an air trip last year, and those who did not take a trip last year but have taken one at some time.

Table 5

<i>Reactions to Flying High</i>	<i>Per Cent of Adults Who Have Ever Flown</i>		
	<i>All Adults Who Have Flown</i>	<i>Adults Who Took Air Trip Last Year</i>	<i>Adults Who Did Not Take Air Trip Last Year</i>
Like to fly high — strongly	18%	21%	17%
Like to fly high — no indication of strong feeling	15	19	13
Don't care, makes no difference	48	46	50
Don't like to fly high — no indication of strong feeling	8	4	9
Don't like to fly high — strongly	5	4	6
Not ascertained	6	6	5
Total	100%	100%	100%

Reactions to the direct question about flying fast are remarkably similar to those about height. Slightly more than half of those who fly express themselves as having no particular feeling about the speed of the plane in which they are flying. Some 29 per cent react favorably to the idea of flying fast, including 16 per cent who express a strongly favorable opinion. Only 6 per cent do not like the idea, including only 2 per cent who express strong distaste for flying fast.

There is a tendency for people to react in the same way to height as to speed. Of those who say they like height, 47 per cent say they like speed; of those who say they do not like height, only 24 per cent like speed. The group who say they dislike both height and speed is small, however, amounting to only about 2 per cent of all those who have ever flown.

Table 6

<i>Reactions to Flying Fast</i>	<i>Per Cent of Adults Who Have Ever Flown</i>			
	<i>All Adults Who Have Flown</i>	<i>Reactions to Flying High</i>		
		<i>Like It</i>	<i>Makes No Difference</i>	<i>Don't Like It</i>
Like it — strongly	16%	27%	10%	13%
Like it — not particularly	13	20	9	11
Don't care — makes no difference	56	43	71	47
Don't like it — not particularly	4	4	2	11
Don't like it — strongly	2	1	2	8
Not ascertained	9	5	6	10
	100%	100%	100%	100%

Further insight into the meaning of these answers may be obtained by examining the reasons people mention for their preferences. Many people did not mention any special reason for their views. A distribution of the comments made about flying high appears in Table 7. The advantage most often mentioned is that it is smoother or more comfortable. About one comment out of ten is to the effect that it is safer to fly high. Very few people take the opposite position, that it is safer to fly low. A few people mention that flying high makes them nervous, however. The leading disadvantage of flying high is that the passenger can't see as much, he does not get a view of the ground. About 14 per cent of the comments are to that effect. Half as many comments, 7 per cent, are about favorable aspects of the view from high flying planes. These comments refer either to the view of the clouds or sunset or to the broader view of the surface of the earth.

A similar distribution of advantages and disadvantages of flying fast appears in Table 8. Most of the people who mention advantages of flying fast, think in terms of the advantages of reaching their destination quickly. Of those who are thinking of the flight itself the largest group comment that planes flying fast tend to be smoother or more comfortable. Eight per cent of all comments are to the effect that flying fast is exciting. Another 8 per cent do not like to fly fast because it tends to make them nervous. There is also a small group who associate speed with lack of safety. The principal impression one receives from the data, however, is that most people who have flown do not have any particular reaction to how fast an airplane flies except that they like to arrive quickly at their destination.

Table 7

<i>Advantages and Disadvantages of Flying High</i>		<i>Per Cent Distribution of Comments Given</i>
Advantages:		73%
Smother, more comfortable	48%	
Safer	10	
Beautiful view, see clouds, see more of ground	7	
Faster	4	
Like the sensation of being high in the clouds	3	
Other	1	
Disadvantages:		26
You don't get a view of ground, can't see much	14	
Nervousness	6	
Air sickness, pressure on ears, other physical sensations	3	
The air is not as good, you need oxygen	1	
Not as safe	1	
Other	1	
Not ascertained		1
Total		100%

Table 8

<i>Advantages and Disadvantages of Flying Fast</i>		<i>Per Cent Distribution of Comments Given</i>
Advantages:		81%
Get there fast	52%	
Safer	1	
Exciting	8	
Smother, more comfortable	14	
Other advantages	6	
Disadvantages:		17
Nervous, don't like it	8	
Less safe	5	
Other disadvantages	4	
Not ascertained		2
Total		100%

The following quotations may serve to supplement the tables by illustrating how people talk about height and speed:

Wife of oil company foreman — age 43, family income \$7500-9999, California

Height: "I don't know because the pilot goes where he wants. You never know how high or low."

Speed: "I don't know if we are going fast or not. It seems slow to me."

Wife of teacher — age 38, family income \$4000-4999, California

Height: "I love to fly. It gives you more of a feeling of exhilaration the higher you are. The air is clean and fresh."

Speed: "I like to fly fast because you get to your destination quickly."

Tailor owner — age 54, family income \$10,000-14,999, California

Height: "I like to fly high to be sure to miss the mountains."

Speed: "I like to go fast and get there as soon as possible."

Bank officer — age 48, family income \$10,000-14,999, New Jersey

"Flying low is bumpy. I prefer to fly high because it's an easier ride and more pleasant."

Bookkeeper — age 38, family income \$7500-9999, Ohio

"I enjoy flying low. I like the rock and roll of the plane, the turbulence."

Wife of trucker — age 39, family income \$5000-5999, Ohio

"I like to fly high. It's beautiful above the clouds."

Widow — over 65, family income \$2000-2999, Pennsylvania

"I enjoy flying low when I can see the ground — the beauty of it."

ATTITUDES TOWARD TRAVEL BY JET PLANE II

In the preceding chapter the topic of reactions to jet travel was approached indirectly through analysis of questions about height and speed of flight. In this chapter answers to direct questions about jet travel are discussed. The first part of the discussion is based on questions about how the respondent himself would feel about traveling in a jet plane and how soon he thinks jets will be in commercial use; the second, on a question about whether he feels jet planes will be safer than those now in use by the airlines

Acceptance of Jet Travel as Related to Various Factors

The question asked about feelings about jet travel in May and June 1958 was the same as one asked in the previous survey in this series in the fall of 1957. There was no appreciable change in people's attitudes during this period. About one third of all adults say they would like to travel in a jet plane and about one half say they would not like it. A few take a middle position, indicating that they would like some things about jets but not others, or that they feel lukewarm about jets. These people seem to be in a frame of mind to accept jet travel, though not as yet enthusiastic about such travel. In succeeding tables, their answers are grouped with those of the people who would like jet travel.

Table 9

Feelings About Jet Travel*	Proportion of Adult Population	
	Nov.-Dec 1957	May-June 1958
Would like it	33%	34%
Middle position; likes certain things about it but dislikes others	4	8
Wouldn't like it	51	50
Don't know, no opinion	3	5
Not ascertained**	9	3
Total	100%	100%
Number of adults interviewed	1493	1456

*The question was: "As you probably know, there are plans for regular use of jet planes for passenger service. How would you feel about traveling in a jet plane?"

**Includes respondents who both said there was no difference between jets and other planes and gave no indication of how they feel about other planes.

Do people realize that when they are talking about travel by jet plane they are talking about the immediate future? Or do they think of it as something for a vague and distant future? To give some measure of the realism of people's thinking about jets, people in the sample were asked, "How long do you think it will be before the airlines begin using jet planes for carrying passengers?"

There may be some disagreement as to how wide a margin of error one should allow and still consider an answer to this question reasonably accurate. If one considers as "tolerably accurate" any reply which refers to a period of less than three years, half of all respondents give answers which are "correct" (Table 10). The other half either do not know when jets will be introduced, or give answers which are "incorrect" by this standard. By a more strict criterion, one could argue that only those are "well-informed" who know that jets have not yet been introduced (in this country) but will be within the next two years. This group includes 28 per cent of all adults.

Among just those adults who would like or accept jet travel, a larger proportion (58 per cent) are "well-informed" and say that jet service will start within the next two years. Sixty-three per cent of these people are "tolerably correct" having referred to a period within three years.

Of those who would not like jet travel, only 21 per cent are "well-informed" as to the date when jets will be in service, and only 37% are "tolerably correct" in their assumption that jets will be in service within three years. Ignorance about the situation seems to be associated with the negative reactions of people to jet travel.

Table 10

<i>When People Expect Jet Service Will Start</i>	<i>Per Cent of Adults</i>		
	<i>All Adults</i>	<i>Adults Who Would Like or Accept Jet Travel</i>	<i>Adults Who Would Not Like Jet Travel</i>
They're already in use	9%	12%	7%
Under 2 years	28	38	21
2 -- 2.9 years	11	13	9
3 -- 3.9 years	4	6	2
4 -- 4.9 years	3	4	3
5 -- 10 years	12	13	12
More than 10 years	1	1	2
Don't know	29	10	41
Not ascertained	3	2	3
	100%	100%	100%

Another way to approach the interpretation of people's feelings about jet travel is by comparing the feelings of those who have ever taken an air trip and those who have not. Of those who have, 72 per cent would like or accept jet travel, while of those who have not, only 30 per cent react favorably. For the immediate acceptance of jets, of course, the group who have taken at least one air trip is the most relevant, and of this group the overwhelming majority is favorably disposed.

Table 11

<i>Feelings About Jet Travel</i>	<i>All Adults</i>	<i>Per Cent of Adults</i>	
		<i>Adults Who Have Taken An Air Trip</i>	<i>Adults Who Have Never Taken An Air Trip</i>
Would like or accept jet travel	42%	72%	30%
Would not like jet travel	50	23	62
Don't know whether would like	5	4	5
Not ascertained	3	1	3
	100%	100%	100%

The remainder of this section compares the feelings about jet travel of those in different strata of the population. Tables 12-15 show responses to the question classified by income, education, age, and sex of the respondent.

People in the upper income groups are more favorably disposed to jets. Of those with incomes below \$3000, 22 per cent would like or accept jet travel, compared to 58 per cent of those with incomes over \$7,500.

Table 12

<i>Feelings About Jet Travel</i>	<i>All</i>	<i>Proportion of Adult Population</i>			
		<i>Family Income</i>			
		<i>Under \$3,000</i>	<i>\$3,000-4,999</i>	<i>\$5,000-7,499</i>	<i>\$7,500 and over</i>
Would like or accept jet travel	42%	22%	45%	49%	58%
Would not like jet travel	50	67	48	47	35
Don't know whether would like	5	7	4	3	4
Not ascertained	3	4	3	1	3
Total	100%	100%	100%	100%	100%

There is also a correlation between a person's education and his feelings about jets. Of those adults who had no formal education, or only a grammar school education, 24 per cent say they would like or accept jet travel, compared to 66 per cent of those who attended college or graduated from college (Table 13).

Thus, it is the groups with higher socio-economic status who are most ready to accept travel by jet plane. The pattern of initial acceptance of an innovation by people in the high status groups followed by diffusion down the ladder is not unusual for consumer goods and services. The introduction of television sets, for example, followed this pattern.

People's feelings about jets are related also to their age. Young people are much more favorably disposed than old people. Of those aged 18-34, 57 per cent say they would like or accept jet travel, compared to only 20 per cent of those aged 65 or older (Table 14).

Table 13

<i>Feelings About Jet Travel</i>	<i>Proportion of Adult Population</i>			
	<i>Educational Attainment</i>			
	<i>All</i>	<i>None or Grade School</i>	<i>High School</i>	<i>College</i>
Would like or accept jet travel	42%	24%	47%	66%
Would not like jet travel	50	66	46	29
Don't know whether would like	5	7	4	3
Not ascertained	3	3	3	2
Total	100%	100%	100%	100%

Table 14

<i>Feelings About Jet Travel</i>	<i>Proportion of Adult Population</i>				
	<i>Age</i>				
	<i>All</i>	<i>18-34</i>	<i>35-44</i>	<i>45-64</i>	<i>65 and over</i>
Would like or accept jet travel	42%	57%	49%	33%	20%
Would not like jet travel	50	37	46	59	65
Don't know whether would like	5	4	3	5	9
Not ascertained	3	2	2	3	6
Total	100%	100%	100%	100%	100%

Men are more favorably disposed toward jets than women. Of the men, 57 per cent would like or accept travel by jet, compared to 30 per cent of the women.

Table 15

<i>Feelings About Jet Travel</i>	<i>Proportion of Adult Population</i>		
	<i>Sex</i>		
	<i>All</i>	<i>Male</i>	<i>Female</i>
Would like or accept jet travel	42%	57%	30%
Would not like jet travel	50	36	62
Don't know whether would like	5	4	6
Not ascertained	3	3	2
Total	100%	100%	100%

Jets and Safety

There is considerable evidence that many people think of planes as dangerous and are nervous about flying even if they do take air trips. Do people think of jets as likely to be safer than the planes now in use?

Of all respondents, 20 per cent think jets will be safer; 18 per cent think jets will be less safe. Thus, the two groups with fairly definite opinions one way or the other are about equally divided in the general population. Many people say they do not know whether there will be a difference or see no reason to expect much difference.

Of those who would like or accept jet travel, 30 per cent feel jets would be safer compared to 8 per cent who feel they would be less safe. Nearly half of the group expect jets to be about the same as other planes. Of those who would not like jet travel, only 12 per cent feel they would be safer, while 28 per cent feel they would be less safe. About one-third of this group say they have no opinion as to whether jets would be safer or not. The large proportion of people unfavorably disposed who do not have an opinion on this point is consistent with the earlier findings that those who react negatively to jets tend to be poorly informed and of lower education.

Table 16

<i>Feelings About Safety of Jets*</i>	<i>All Adults</i>	<i>Per Cent of Adults</i>	
		<i>Adults Who Would Like or Accept Jet Travel</i>	<i>Adults Who Would Not Like Jet Travel</i>
Jets will be safer	20%	30%	12%
About the same	32	46	22
Less safe	18	8	28
Don't know, no opinion	27	13	35
Not ascertained	3	3	3
Total	100%	100%	100%

*The question was: "In your opinion will jet planes be safer than the kind of plane they are using now, not as safe, or what?"

Some people gave reasons why they expected jets to be safer or less safe — though most did not — and these factors are shown in Tables 17 and 18 respectively. Of the comments as to factors which will make jets safe, the most common refers to their newness. People speak of the latest research, or in terms which suggest a general tendency to think of things which are newer as also better. About 4 per cent refer to the mechanical characteristics of jet engines, such as that they have fewer moving parts. Another 4 per cent think that high speed may be a safety factor (Table 17).

Of those who mention factors tending to make jets less safe, by far the largest group, 13 per cent of all adults, feel that high speed will tend to make jets less safe. The only other group of any size, 2 per cent of all adults, refers doubtfully to jets as too new or untried. Some of these people are giving responses which are the counterpart in reverse of the answers to the effect that jets are new and will, therefore, be better (Table 18).

Table 17

<i>Factors Making Jets Safer**</i>	<i>Per Cent of All Adults*</i>
Height (fly over weather)	1%
Speed (less time in air)	4
Mechanical characteristics of engine (fewer moving parts)	4
Size of the jets (bigger, stronger)	1
Newness (well designed)	7
Handling (will be better handled, etc.)	3
It depends	1
Other safety factors	6
No factors making jets safer mentioned, not ascertained	76

*Adds to more than 100 per cent because of multiple answers

**The questions were: "In your opinion will jet planes be safer than the kind of plane they are using now, not as safe, or what?" "What do you have in mind?"

Table 18

<i>Factors Making Jets Less Safe***</i>	<i>Per Cent of All Adults**</i>
Height (too high)	1%
Speed (too fast)	13
Mechanical (characteristic of engines)	1
Size of the planes (too big)	•
Newness (untried)	2
Handling (personnel inexperienced)	1
It depends	1
Other less safe factors	4
No factors making jets less safe mentioned, not ascertained	81

*Less than 0.5 per cent

**Adds to more than 100 per cent because of multiple answers

***The questions were: "In your opinion will jet planes be safer than the kind of plane they are using now, not as safe or what?" "What do you have in mind?"

Thus, there is a tendency for people to think of jets as new and react according to how they feel about new things generally. There is a tendency for people to think of jets as fast, and to react according to the implications of speed as they see them. (These answers include those of people who fear collisions because jets are fast). People do not seem to think that height is very relevant to safety.

OVERSEAS TRAVEL EXPERIENCE III

What proportion of the adult population of the United States ever have been overseas? How many people have visited other nations, exclusive of Canada and Mexico? The answers to these questions are presented in Table 19. Of all American adults, about one in five has been overseas at some time. Men are much more likely to have been abroad than women, and most of the men who have been abroad went as members of the armed forces.

Of the adult population, about 14 per cent are men who went abroad in the armed forces but have not been overseas as civilians. This group, of course, includes men who went overseas in World War I, World War II, or the Korean War, as well as men who have served overseas at other times. An additional one per cent of all adults are men who have been overseas both as civilians and as members of the armed forces. Altogether, about 3 per cent of all adults are men who have been overseas as civilians, and about 4 per cent of all adults are women who have been overseas. Another way of stating the same result is that about 6 per cent of all men have been overseas as civilians and about 8 per cent of all women have been overseas. (A few of the women were in the armed forces, of course, but the percentage is presumably small.) About 7 per cent of all adults have been overseas as civilians, while twice that many have been overseas in the armed forces.

Table 19

<i>Experience with Overseas Travel</i>	<i>Per Cent of All Adults</i>
Have traveled overseas	21%
<i>Men</i>	17%
In armed forces only	14%
As a civilian only	2
Both	1
<i>Women</i>	4
Have not traveled overseas	77
Not ascertained	2
Total	100%

The parts of the world which people have visited are shown in Table 20. Many people have visited more than one part of the world. About 12 per cent of all adults have visited Europe, 5 per cent Asia, and 5 per cent the islands in the Pacific. In view of the fact that most of the people who went overseas went in the armed forces, it is not surprising that the areas they visited are the areas to which American troops have been sent in recent years. Of the continents, those visited by the smallest proportion of the American population are Australia, South America, and Africa, each of which has been visited by 2 to 3 per cent of all American adults.

Table 20

<i>Parts of the World Visited</i>	<i>Per Cent of All Adults</i>
Have traveled overseas:	21%
Europe	12%
Asia (Japan, Formosa, India)	5
Africa	3
South America	2
Australia, New Zealand	2
Caribbean, Central America	2
Pacific Islands, Hawaii, Philippines, etc.	5
Atlantic Islands, Bermuda, Azores	•
Other parts of the world	5
Have never traveled overseas	77
Not ascertained	2
Total	100%

*Less than 0.5 per cent

The same data are presented in slightly different form in Table 21, which shows the proportion of all those who have been overseas who have visited each area. This way of looking at the data emphasizes again the importance of Europe, which has been visited by 60 per cent of all Americans who have been overseas.

Table 21

<i>Parts of the World Visited</i>	<i>Per Cent of All Adults Who Have Ever Traveled Overseas*</i>
Europe	60%
Asia (Japan, Formosa, India)	23
Africa	15
South America	11
Australia; New Zealand	9
Caribbean, Central America	9
Pacific Islands, Hawaii, Philippines, etc.	25
Atlantic Islands, Bermuda, Azores	2
Not ascertained	6

*Adds to more than 100 per cent because of multiple answers

There is a relation between the income of a person's family and the probability that he has been overseas. Men who were overseas in the armed forces are likely now to be in their better earning years. Of those adults with family income under \$3,000, 7 per cent have been overseas in the armed forces only (Table 22). Of those adults with income over \$3,000, 16 per cent were overseas in the armed forces.

The probability that an individual has been overseas as a civilian rises more sharply with income. Of all adults with income below \$3,000, 3 per cent have been overseas as civilians; of adults with income from \$3,000 - \$7,499, 6 per cent have been overseas as civilians; but of adults with income over \$7,500, 15 per cent have been overseas as civilians.

Table 22

<i>Experience with Overseas Travel</i>	<i>Proportion of Adult Population</i>				
	<i>Family Income</i>				
	<i>All</i>	<i>Under \$3,000</i>	<i>\$3,000-4,999</i>	<i>\$5,000-7,499</i>	<i>\$7,500 and over</i>
Has been overseas	21%	10%	20%	25%	31%
Has been overseas as a civilian	7	3	6	6	15
Has been overseas only in armed forces	14	7	14	19	16
Has never been overseas	77	86	77	74	68
Not ascertained	2	4	3	1	1
Total	100%	100%	100%	100%	100%

Not all of people's attitudes are on the surface of their consciousness. Direct questions may bring answers which are incomplete or even misleading. As an experiment intended to reveal something of people's underlying attitudes toward travel, a series of sentence completions was introduced in this survey. The topics explored include wishes and hopes about travel, a comparison between attitudes toward travel in the U.S. and travel in foreign countries, attitudes toward travel to Europe, and a comparison of reactions to travel by auto and travel by plane.

Wishes and Hopes

Travel to distant places is something people dream about. To learn something about these fantasies, people were asked to complete this sentence: "If I had my choice of any place in the whole world I'd like to see, I'd go to . . ." Later in the sequence of sentence completions an item was introduced intended to be slightly more realistic, though still the answers would refer to hopes and not to actual expectations: "If I could pick the way to spend my vacation this year I would . . ." The answers to these two items were coded on a comparable basis, except that the answers to the second included comments about what people would like to do as well as about where they would like to go. The answers are shown in Table 23.

People are most likely to say that the place in the whole world they would like to see is Europe. Of all respondents 39 per cent mention Europe or some part of Europe. The country most often mentioned is France. Eleven per cent mention France or places in France. France is followed by Italy, mentioned by 7 per cent. Of those who mention destinations in Italy, a number refer to the Vatican, while others mention Rome, or Italy as a whole.

Twenty-eight per cent of all respondents mention destinations in the United States. The three states with the greatest number of mentions are California, Florida, and New York. It is interesting that 14 per cent mention one or another of these three, compared to only 5 per cent who refer to all other states combined and 9 per cent who mention other destinations in the United States or a tour of the country.

There is a scattering of mentions of other countries in North America and of other continents, but not over 2 or 3 per cent refer to any one area. Hardly anyone mentioned the islands of the South Pacific. (Evidently the effects of musical comedies on the popular imagination can easily be exaggerated.) Hawaii, however, ranks very high, almost as high as France; it is mentioned by 9 per cent of all adults as the place they would like to see.

Almost all respondents were able to answer this question: only 2 per cent insisted that their choice would be to stay home, and only 5 per cent could not think of anything to say or gave answers which could not be coded. Fantasies about distant places seem to be almost universal.

People's answers to the item about "picking the way to spend my vacation this year" are very different. The more remote destinations drop out of the tabulation almost completely. Only 3 per cent mention Europe instead of the 39 per cent, and only one per cent mention continents other than Europe or North America instead of 12 per cent. Hawaii drops from 9 per cent to 2 per cent. Most people do not associate these distant places with "my vacation

this year" even in their imaginations. On the other hand, the mentions of specific states other than California, Florida, and New York tend to increase.

This item was phrased in a way to permit people to mention various activities instead of specific destinations. About half of all respondents actually replied in terms other than a specific destination. Of these, however, most imply that they would take a trip of some kind. Two per cent mention an air trip; one per cent, a trip by sea; 3 per cent, a trip by auto. A larger number of answers, 9 per cent, mention hunting or fishing. Another 9 per cent mention going to the mountains or the seashore, with the seashore the more popular of the two. There is also a group of 9 per cent who would stay home.

Most people had no difficulty in responding to this item. Only one per cent insisted that they could not pick a way they would like to spend a vacation because they won't have a vacation, while 4 per cent gave no answer or no answer which could be coded and tabulated.

The emphasis on travel in answer to this question may reflect in part the context in which it was asked. People had been asked several questions in the area of travel before this item was presented to them. Nevertheless, it is worth noting that the overwhelming majority say they would spend their vacation by taking a trip of one type or another.

Table 23
Sentence Completions on Places People Would Like to See
Per Cent of All Adults

<i>"If I had my choice of any place in the whole world I'd like to see, I'd go to:"</i>		<i>"If I could pick the way to spend my vacation this year I would:"</i>	
States specifically mentioned:	19%	States specifically mentioned:	27%
California	7	California	7
Florida	4	Florida	7
New York	3	New York	3
Other states	5	Other states	10
Destinations in the U. S.	9	Destinations in the U. S.	7
Tour the United States	4	Tour the United States	2
Tour the West	1	Tour the West	1
Washington, D.C.	1	Washington, D.C.	1
National Parks (Yellowstone, etc.)	1	National Parks (Yellowstone, etc.)	1
Other destinations	2	Other destinations	2
Europe	39	Europe	3
France	11	France	1
Italy	7	Italy	•
Great Britain	5	Great Britain	•
Germany	3	Germany	•
Switzerland	3	Switzerland	•
Spain	1	Spain	•
Austria	•	Austria	•
Belgium	•	Belgium	•
Europe in general; other places in Europe	9	Europe in general; other places in Europe	2

Table 23 (Continued)

<i>Other continents</i>	12	<i>Other continents</i>	1
South America	3	South America	•
Asia (Japan, India)	3	Asia (Japan, India)	•
Africa	2	Africa	•
Australia	1	Australia	•
Near East	3	Near East	•
<i>Other parts of North America</i>	4	<i>Other parts of North America</i>	4
Mexico	1	Mexico	1
Canada	1	Canada	2
Other	2	Other	1
<i>Islands</i>	10	<i>Islands</i>	3
Hawaii	9	Hawaii	2
South Seas (Tahiti, Samoa, etc.)	•	South Seas (Tahiti, Samoa, etc.)	•
Puerto Rico	•	Puerto Rico	•
Other islands	1	Other Islands	1
<i>Other comments</i>	2	<i>Other comments</i>	55
I'd stay home	2	I'd stay home	9
		I'd travel (no details specified)	5
		Take a trip by air	2
		Take a trip by sea	1
		Take a trip by auto	3
		Take a trip by other modes	1
		Go hunting, fishing	9
		Go to the mountains	3
		Go to the seashore	6
		I won't have a vacation	1
		Other answers	11
<i>Not ascertained</i>	5	<i>Not ascertained</i>	4
Total	100%	Total	100%

*Less than 0.5 per cent

Travel in the United States and Travel in Foreign Countries

As just discussed, travel in foreign countries plays a much larger role in people's fantasies about travel than in their aspirations for the immediate future, while the reverse is true for domestic travel. A further comparison of domestic and foreign travel can be made by analysis of the way in which people completed two sentences: "Traveling in the United States is . . .", and "Traveling in foreign countries is . . .". The replies are shown in Table 24.

Positive comments about travel in the United States were made by 81 per cent of all respondents, and negative comments, by 13 per cent. Positive comments about foreign travel were made by only 61 per cent, and negative comments, by 29 per cent. What is the nature of these negative comments? There is more tendency for people to say that foreign travel is expensive; 9 per cent make this comment about foreign travel, compared to 6 per cent about travel in the United States. This result is hardly surprising, since foreign travel is in fact more expensive than travel in the United States.

The principal difference in the replies, however, is in negative comments which do not refer to cost. Only 2 per cent comment that travel in the United States is difficult or dangerous. Eleven per cent, however, give as their first association with travel in foreign countries either difficulty or danger, and to these should be added 2 per cent who respond that foreign travel is "for other people" or "not for me." The obstacles to foreign travel are not all financial.

There are also pronounced differences in the positive comments people make. People are more likely to say that travel in foreign countries is fascinating or interesting, more likely to say that it is stimulating, exciting, or adventurous, and more likely to say that it is a new experience or different. One gets the feeling that people are aroused by the idea of foreign travel and stimulated by it, but need not find it relaxing.

This interpretation is supported by the distribution of answers among the other categories. Twenty-nine per cent of the comments about travel in the United States are to the effect that it is wonderful, pleasant, or a joy. Only 13 per cent of the comments about foreign travel fall in this category. Four per cent comment that travel in the United States is comfortable or

Table 24
Sentence Completions on Traveling in the United States
and in Foreign Countries

Per Cent of All Adults

<i>"Traveling in the United States is:"</i>		<i>"Traveling in foreign countries is:"</i>	
<i>Total positive comments</i>	81%	<i>Total positive comments</i>	61%
Fascinating, interesting	11	Fascinating, interesting	14
Stimulating, exciting, adventurous	2	Stimulating, exciting, adventurous	7
Entertaining, fun	9	Entertaining, fun	5
A new experience, different	1	A new experience, different	4
Educational, broadening	9	Educational, broadening	13
Cheaper	1	Cheaper	1
Comfortable, easy, convenient	4	Comfortable, easy, convenient	*
Seeing what your homeland is like, best place to travel	2	Seeing what your homeland is like, best place to travel	*
Wonderful, nice, pleasant, a joy	29	Wonderful, nice, pleasant, joy	13
Is for me, is what I've done	1		
The thing to do first	1		
OK, all right, good (lukewarm reaction)	3		
Other positive comments	8	Other positive comments	4
<i>Total negative comments</i>	13	<i>Total negative comments</i>	29
Expensive	6	Expensive	9
Difficult	1	Difficult	5
Tiresome, dull, fatiguing	2	Tiresome, dull, fatiguing	1
Dangerous	1	Dangerous	5
		Dangerous because of language difficulties	1
		For other people, not for me	2
Other negative comments	3	Other negative comments	8
<i>Not ascertained</i>	6	<i>Not ascertained</i>	10
<i>Total</i>	100%	<i>Total</i>	100%

*Less than 0.5 per cent

easy, but hardly anyone gives as his first reaction to foreign travel that it is comfortable. People are much more relaxed about the idea of traveling in the United States than about travel in foreign countries.

There are positive forces which tend to make foreign travel attractive, and these include motives additional to those of curiosity and the desire for new experience. Thirteen per cent give as their first reaction that travel in foreign countries is educational and broadening. The same comment is made about travel in the United States by a somewhat smaller group, 9 per cent of the population.

Feelings about Trips to Europe

By far the largest group of Americans who have been overseas or who would like to go overseas think in terms of travel to Europe, as the preceding analysis has shown. Two items were included in the list of sentence completions intended to explore specifically motives for going to Europe and reasons for not going to Europe. The items were as follows: "Mr. and Mrs. Smith went to Europe because . . .", and "Mr. and Mrs. Brown were offered an expense-free trip to Europe but they don't want to go because . . ." The latter sentence fragment was so phrased as to avoid answers to the effect that people do not go to Europe because it costs too much. On this point the relation between income and foreign travel, discussed in Chapter III, tells more about the extent to which cost is a barrier to travel than could be learned from a sentence completion.

The motive for going to Europe most frequently attributed to "Mr. and Mrs. Smith" is a desire to go sight-seeing (Table 25). A few people mention specific places or types of places which the Smiths might desire to see, but most of the comments mention sight-seeing in rather general terms. Nine per cent say the Smiths want to go because they have never been there, which implies the same general curiosity. A considerable group, 13 per cent, mention the desire to have a good time or to have a vacation. Another group of nearly equal size refer to personal ties to friends or relatives abroad, or to interest in places where members of the family have been at some time.

Motives of conspicuous consumption are mentioned by 6 per cent. The Smiths went to Europe, they say, because they could afford it, and wanted people to know that they could.

Another group interpret the Smiths' behavior in terms of a general desire to travel. These people, 8 per cent of all adults, say that the Smiths went to Europe because they like to travel or like to take long trips.

Altogether, then, people mention five principal motives for European travel: curiosity or a desire to sight-see; desire to have a good time; personal ties; conspicuous consumption; and a general desire to travel.

The reasons for not going to Europe divide about evenly into reasons for not wanting to go and reasons for not going even though one would like to. People may not want to go to Europe because they do not like to leave home. The attractions of home are numerous and varied; they are mentioned by over half of those who cite reasons why Mr. and Mrs. Brown do not want to go to Europe. The others include 7 per cent who mention fear of the sea or of flying. To these people, the trip across the ocean itself carries connotations of fear.

The obstacles to travel to Europe are similar to the obstacles to travel in general found in earlier studies. Apart from money, which was ruled out by the form of the question, the major obstacles are health, including feebleness associated with age, and children or aged dependents. Some people also mention difficulty in getting enough time, either because Mr. Brown cannot leave his job or for some other reason.

Some 6 per cent of the respondents cannot imagine why anyone would turn down a free trip to Europe. To them, the attraction of a trip to Europe is so powerful that the Browns must be "crazy".

Table 25
Sentence Completions on Going to Europe
Per Cent of All Adults

<i>"Mr. and Mrs. Smith went to Europe because:"</i>		<i>"Mr. and Mrs. Brown were offered an expense-free trip to Europe, but they don't want to go because:"</i>	
To go sight-seeing; to travel around	23%	Obstacles other than money prevent them:	38%
To see the World's Fair in Brussels	2	They are in poor health	5
To see historic places	1	They are too old, feeble	3
To see how other people live	2	Someone in the family is sick, old	4
To see Europe, or a particular country in Europe	2	They have children they don't want to leave or take	11
Visit friends, relatives	8	They have family they don't want to leave or take	4
Visit someone in the service; see where their boy fought	1	They have other obligations at home	7
To see where their own ancestors lived	1	They do not have the time	2
Other people go; the Joneses went	3	Mr. Brown might lose his job	2
They can afford it (want to show they can); they have the money	6	They don't want to go	31
Have a good time, have a vacation	13	They don't like to leave home for various reasons	20
They like to travel, take long trips	8	They are afraid of the sea, of flying	7
Travel is broadening, educational, interesting	2	It is too far from home	2
They have never been there	9	They want to see the U.S. first	2
Other comments	14	They are crazy, nuts, silly	6
Not ascertained	5	Other comments	17
Total	100%	Not ascertained	8
		Total	100%

An additional item was asked about what people would like to do in Europe. The incomplete sentence reads: "If I were in Europe the thing I'd like most to do is . . ." This phrasing is such that it should lead to specific statements of things people would like to do. Nevertheless, 25 per cent of all respondents answered in general terms that they would go sight-seeing or travel around (Table 26). This result is reminiscent of the general desire to go sight-seeing attributed to Mr. and Mrs. Smith. A desire to see particular countries or parts of particular countries is stated by 29 per cent of all respondents. Once again, France and Italy are the most popular destinations, in that order.

Another group of 16 per cent mention fairly specific objectives, which vary from the desires to attend the World's Fair in Brussels to the wish to see how other people live.

Nine per cent of all respondents say that if they were in Europe what they would like most to do is to hurry back home. These people are at the opposite extreme from the 6 per cent who cannot think of any reason why someone would turn down a free trip to Europe.

Table 26

**Sentence Completions on What People Would Like to Do in Europe
Per Cent of All Adults**

"If I were in Europe the thing I'd like most to do is:"

Go sight-seeing, travel around	25%
See something in particular	16
See the World's Fair	2
See historic places	2
See a specific sight (Eiffel Tower, museums, cathedrals, etc.)	6
Go to concerts, festivals, other events (be a spectator at some activity)	1
See how other people live	1
Visit friends, relatives	2
See where my own ancestors lived	1
Have a good time, learn a language, attend school, visit someone now in the service, see where my boy fought (died)	1
See particular countries (or parts of countries)	29
France	10
Italy	6
Switzerland	4
Great Britain	3
Germany	2
Spain, Austria	*
Europe in general; other parts of Europe	4
Don't know what I'd want to do	3
Return home, hurry back to the good old U.S.A.	9
Other comments	9
Not ascertained	9
Total	100%

*Less than 0.5 per cent

Travel by Auto and Travel by Plane

Two final sentence completions are of a rather different character. They refer to travel by automobile and by plane. "Automobile trips are . . ." and, "Plane trips are . . ."

Of the comments about trips by auto, 58 per cent were positive and 39 per cent, negative (Table 27). Of the comments about trips by air, 50 per cent were positive, and 37 per cent, negative. That many people would make negative comments about air was to be expected in the light of the results of earlier surveys. The frequent negative comments about automobiles came as more of a surprise.

Of all respondents, one in five comments that auto trips are tiresome, fatiguing, or dull. These people seem to be rather bored with travel by auto. Only one per cent make similar comments about travel by air.

Of the other negative comments about automobile travel, the most frequent are that it is expensive and that it is dangerous, each mentioned by 6 per cent of all adults. People refer to plane trips as expensive as often as they do to auto trips. The most frequent negative comment about plane travel is that it is dangerous, frightening, or rough, mentioned by 14 per cent. No doubt many of the 8 per cent who simply say plane travel "is not for me" are also reacting to the perceived danger of air travel.

The positive comments about travel by auto are of a relaxed character reminiscent of the positive comments about travel in the United States. The most typical remark is that auto travel is wonderful, nice, or pleasant. Few people (only 1 per cent) think of it as exciting, but 7 per cent think of it as fun.

The positive comments about air travel are different. Only half as many people say it is wonderful, nice, or pleasant. Five per cent refer to it as stimulating, exciting or adventurous. Only 2 per cent say that it is fun. The largest group, 20 per cent, say that plane trips are fast.

The general impression about automobile travel which emerges is that most people like it, and tend to find it enjoyable. A substantial minority, however, find it dull, and a few feel it is expensive or dangerous. Plane travel, which nearly three people out of four never have experienced, is also seen as enjoyable by a number of people, but there is also a tendency to think of it as stimulating or adventurous. A considerable group think first of plane travel in terms of danger or fear; a smaller number think first of the expense.

Table 27
Sentence Completions on Automobile and Plane Trips
Per Cent of All Adults

<i>"Automobile trips are:"</i>		<i>"Plane trips are:"</i>	
<i>Positive comments</i>	58%	<i>Positive comments</i>	50%
Fascinating, interesting, educational	2	Fascinating, interesting, educational	1
Stimulating, exciting, adventurous	1	Stimulating, exciting, adventurous	5
Entertaining, fun	7	Entertaining, fun	2
Cheaper	2	Cheaper	4
Comfortable, relaxing	2	Comfortable, good service	2
Convenient	3	Convenient	2
Wonderful, nice, pleasant, a joy	28	Wonderful, nice, pleasant, a joy	13
All right (lukewarm reaction)	4	Fast	20
Other positive comments	11	Other positive comments	5
<i>Negative comments</i>	39	<i>Negative comments</i>	37
Expensive	6	Expensive	7
Difficult	2	Difficult	1
Tiresome, fatiguing, dull	20	Tiresome, fatiguing, dull	1
Dangerous	6	Dangerous, frightening, rough	14
		Not for me; for other people	8
Other negative comments	5	Other negative comments	6
I have never been in one	•	I have never been on one	7
Other comments	1	Other comments	2
Not ascertained	2	Not ascertained	4
Total	100%	Total	100%

*Less than 0.5 per cent

VACATION TRAVEL V

One section of this survey was devoted to people's vacation travel. Questions were asked about whether people have ever taken a vacation trip and about whether they expect to take one in the next twelve months. The answers to these questions have some interest in their own right. They were mainly intended, however, to lead to discussion of various aspects of vacation travel. In particular, people were asked a series of questions about their plans for their next trip covering such topics as where they will go, when they expect to go and what choice they have as to the timing of their vacation trip, method of transportation they plan to use, and how they plan to pay for the trip. Information about the type of lodging which they expect to use for this trip was also obtained and is discussed in Chapter VI.

Vacation Travel Experience and Income

When asked if he has ever taken a vacation trip to a point 100 miles or more away, about one adult in four replied that he never has (Table 28). Of course, it is quite possible that he has traveled that distance or farther for other reasons.

The proportion of adults who have taken a vacation trip at some time in their lives varies with income, as one might anticipate. Of those with incomes under \$3,000, 60 per cent have taken such a trip; of those with incomes from \$3,000 to \$4,999, 74 per cent have taken such a trip; and of those with incomes of \$5,000 to \$7,499, 88 per cent have taken a vacation trip. Over 90 per cent of those in the top income group (\$7,500 or over) have taken a vacation trip to a destination at least 100 miles away.

Table 28

Experience With Vacation Travel**	Proportion of Adult Population				
	All	Family Income			
		Under \$3,000	\$3,000- 4,999	\$5,000- 7,499	\$7,500 and over
Has taken a vacation trip	77%	60%	74%	88%	93%
Never has taken a vacation trip	23	40	25	12	7
Not ascertained	•	•	1	•	•
	100%	100%	100%	100%	100%

• Less than 0.5 per cent

**The question was: "Have you ever taken a vacation trip to a place 100 miles or more away?"

Choice of Destination

People who say they have ever taken a vacation trip were asked, "When you take a vacation trip, what do you consider in deciding where to go?" The replies, while they do not permit a complete analysis of choice of destination, give some insight into people's thinking on the subject. The largest group, 35 per cent, say they take into account their connections

with other people in selecting their destination (Table 29). Most of the references in the interviews are to relatives whom people visit. A second large group, 17 per cent, try to select a destination where they can go sight-seeing. Other specific activities are mentioned by 13 per cent, of whom the largest group (6 per cent) select a destination where they can go hunting or fishing.

All vacation trips must be carried out, of course, within the limits of time and money available to the people concerned. Thirteen per cent specifically mention cost or prices as a factor in choice of destination. Four per cent explicitly mention the time available to them as a factor.

Table 29

<i>Factors in Deciding Where to Go on a Vacation Trip**</i>	<i>Per Cent of All Adults Who Have Ever Taken a Vacation Trip*</i>
Activities:	30%
Hunting, fishing	6%
Sight-seeing	17
Other activities	<u>7</u>
Habit	3
People	35
Cost	13
Time	4
A place we can enjoy	11
Other factors	22
Not ascertained	5

*Adds to more than 100% because of multiple answers.

**The question was: "When you take a vacation trip, what do you consider in deciding where to go?"

Of the remaining comments many are difficult to classify in any simple system of categories. An idea of how some people talk about the topic may be gained from the following quotations:

County Register — age 52, \$5000-5999, Tennessee

"I want to get some place where people can't find me."

Wife of Office Worker — age 25, \$7500-9999, New York State

"I haven't been on a vacation since our honeymoon. I'd like to go where there's something interesting to see and nice weather, too."

Foreman — age 36, \$6000-7499, Minnesota

"We usually go out to the farm. We just pick up and go. We don't plan our vacations."

Wife of Farmer — age 22, \$1000-1999, South Dakota

"If we have relatives we visit them so we don't have to pay for a motel. Also we go some place where we know someone who can show us the sights."

Mechanical Engineer — age 48, \$6000-7499, New Jersey

"I like to go somewhere where I can get away from daily routine, but I'm happy to get back."

Wife of Construction Worker — age 38, \$7500-9999, North Carolina

"I always consider the heat and want to go to a cool place."

Wife of Dry Cleaning Manager — age 38, \$7500-9999, South Carolina

"We consider the children and what they would enjoy along with the vacation being educational and enjoyable."

Wife of Steel Worker — age 29, \$4000-4999, Pennsylvania

"We go visiting relatives."

Wife of Tool Maker — age 55, \$4000-4999, St. Louis, Missouri

"We like scenery."

Tool and Die Leader — age 42, \$5000-5999, Michigan

"We rent a cottage on a lake."

Railroad Telegrapher — age 37, \$7500-9999, Iowa

"We go mostly to where our relatives are."

People were also asked in this sequence whether they always go to the same place when they take a vacation trip. Of adults who have ever taken a vacation trip, 25 per cent say they do always go to the same place (Table 30). The most important factor which tends to keep people going back to the same place is their connections with relatives and other people. Of those who mention people as a factor in choice of destination, about half always go to the same place. On the other hand, of those whose main consideration is sight-seeing, hardly any keep going to the same place.

Table 30

Whether Always Go to the Same Place	All Adults	Cost	Time	Per Cent of Adults Mentioning Different Factors in Deciding Where to Go					A Place We Can Enjoy	Other
				Activities			Habit	People		
				Hunting, fishing	Sight- seeing	Other				
Always goes to same place	25%	15%	7%	25%	3%	23%	90%	46%	9%	12%
Goes to the same place and also to new places	2	1	•	1	1	4	3	2	3	2
Does not go to same place	61	70	82	64	92	69	7	43	79	71
Not ascertained	12	14	11	10	4	4	•	9	3	15
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

*Less than 0.5 per cent

The destinations people plan to visit this year on their vacation trips were covered as part of a series of questions about vacation plans which is described below. Of those planning a trip, 81 per cent have in mind specific destinations in the United States (Table 31). The three leading states, Florida, California, and New York, account for 22 of the 81 per cent. It is interesting to compare these answers to the sentence completion item discussed in the preceding chapter. When people were completing the sentence about "my choice of any place in the whole world I'd like to see", 28 per cent mentioned destinations in the United States, of whom half mentioned one of these three states. When completing the sentence, "If I could pick the way to spend my vacation this year", 34 per cent mentioned specific destinations in the United States, of whom half also mentioned one of these states. In talking about actual plans, as just noted, nearly everyone with a specific destination in mind plans to go somewhere in the United States, but only about one in four of these people actually plans to go to one of these three states.

Table 31

<i>Where People Expect to Go on Their Next Vacation</i>	<i>Per Cent of Adults Planning a Trip</i>
<i>Destinations in the U.S.</i>	81%
Florida	10%
California	7
New York	5
Michigan	4
Minnesota	3
Maine	3
Pennsylvania	3
Other states (Each 2 per cent or less) *	<u>46</u>
<i>Foreign destinations</i>	7
Canada	5
Europe	1
Other	<u>1</u>
Not ascertained	<u>12</u>
Total	100%

*Includes "District of Columbia"

Plans for a Vacation Trip This Year

Although three adults out of four have at some time taken a vacation trip, the proportion who are considering one in the next twelve months is much smaller. Forty-three per cent say they are thinking of such a trip, including 28 per cent who say they definitely plan to go, 10 per cent who probably will, and 5 per cent who are undecided (Table 32).

There is a close connection between *his income* and the probability that an individual

is planning to take a vacation trip. Of those from families with incomes below \$3,000, only 23 per cent are thinking about a vacation trip, while of those from families with incomes over \$7,500, 70 per cent are planning a trip. It should not be assumed that all of the people who are planning a trip will in fact take a trip, and some of those not yet thinking about a trip no doubt will take one. The data represent a measure of the plans in people's minds at the period of interview, in June 1958.

Table 32

<i>Plans for Taking a Vacation Trip in the Next Twelve Months*</i>	<i>Proportion of Adult Population</i>				
	<i>Family Income</i>				
	<i>All</i>	<i>Under \$3,000</i>	<i>\$3,000- 4,999</i>	<i>\$5,000- 7,499</i>	<i>\$7,500 and over</i>
Definitely	28%	12%	23%	36%	49%
Probably	10	5	11	10	18
Undecided	5	6	4	4	5
Will not take a trip	56	76	61	49	29
Not ascertained	1	1	1	1	1
Total	100%	100%	100%	100%	100%

*The question was, "Do you expect to take a vacation trip in the next twelve months? (If "yes" or "maybe"), Do you think you definitely will go, you probably will, or are you undecided?"

The phrase "a vacation trip" may mean different things to different people. Eighty per cent of the people who report that they are planning a vacation trip have in mind a trip of a week or more (Table 33). In other words, 34 per cent of all adults stated that they were planning a vacation trip of a week or more during the next twelve months, while 9 per cent contemplate a trip of less than a week, out of the 43 per cent who plan some kind of a vacation trip. Of those who are planning a trip, 16 per cent plan to be away more than two weeks but not over a month. Eight per cent plan to be away over one month. In all probability trips of this length are planned farther in advance than the trips of less than one week.

Table 33

<i>Length of Time People Expect To Be Away on Next Vacation Trip</i>	<i>Per Cent of Adults Planning a Trip</i>
Less than a week	19%
7-10 days	25
11-14 days	31
15 days-one month	16
Over one month	8
Not ascertained	1
	100%

Advance Travel Planning and Vacation Time Flexibility

How far in advance do people actually plan their trips? This question cannot be answered in full with the data from the present survey, but some indications are available. People were asked in what month they expect to start their trip. How many in May and June 1958 were planning trips later than the summer of 1958?

Of those planning a trip, three out of four had in mind a trip which would begin before the first of September (Table 34). Twenty-two per cent had in mind a trip to begin later than that, including 17 per cent who expected to leave at some time in the four month period from September through December. Only 4 per cent of those planning a trip were thinking of one which would begin in the four month period January through April of the following year.

People were asked whether they have any choice as to when they take their next vacation trip. Of those planning a trip, about half (47 per cent) said they did have a choice, while about two out of ten say they have some choice but not complete freedom, and three out of ten report that they do not have a choice. From the point of view of people in the travel industry who would like to induce people to change the dates of their vacations, these results may be moderately encouraging. Most people who plan a vacation trip do have the freedom to change the dates to some extent at least, provided they can be persuaded to do so.

People who have a choice in fact now plan to take their vacation trips at about the same dates as those who do not have a choice. Of those with a choice, 74 per cent will leave before September 1; of those with no choice, 75 per cent will leave before September 1. (The difference of one per cent is, of course, easily attributable to sampling error.)

Table 34

		Per Cent of Adults Planning a Trip			
		Whether a Choice of When To Take Their Vacations			
When People Expect to Start Their Vacations		All	Has a Choice	Limited Choice	Has no Choice
May - June	1958	18%	20%	15%	18%
July - August	1958	55	54	54	57
Sept. - Oct.	1958	12	16	11	6
Nov. - Dec.	1958	5	4	5	6
Jan. - Feb.	1959	3	1	4	4
March - April	1959	1	1	1	2
May or June	1959	1	•	1	1
Not ascertained		5	4	9	6
Total		100%	100%	100%	100%
Per Cent of Adults Planning a Trip		100%	47%	21%	29%

Of those people who say their choice is limited or that they have no choice, many mentioned the factor that restricts their freedom. Two-thirds of the comments referred to the job

of the head of the family or of some other member of the family who is working. If two people are working, it may be a problem for both to get away from their work at the same time. The other prominent factor which limits people's choice of vacation is the timing of school vacations. Fourteen per cent of all comments referred to children in school.

Table 35

<i>Factors Limiting Choice of Vacation Time</i>	<i>Per Cent of Factors Mentioned</i>
Job (of some member of family)	68%
Children in school	14
Weather at preferred vacation place	1
Other factors	17
Total	100%

The nature of a person's occupation might reasonably be expected to be related to whether he has a choice as to when he takes a vacation. While this proposition may be true if jobs are analyzed in detail, as a statement about differences among broad occupation groups it is largely incorrect. Retired people are more likely to have a free choice as to when they take a vacation trip (Table 36). Families whose head is a laborer or service worker seem to

Table 36

<i>Per Cent of Adults Planning a Vacation Trip</i>				
<i>Occupation of Family Head</i>				
<i>Extent of Choice of Time Vacation is Taken</i>	<i>All Occupations</i>	<i>Professional, Technical</i>	<i>Self-Employed, Managers</i>	<i>Clerical</i>
Has a choice	48%	48%	48%	56%
Has limited choice	21	26	26	20
Has no choice	29	24	24	22
Not ascertained	2	2	2	2
Total	100%	100%	100%	100%

<i>Laborers, Service Workers</i>					
<i>Extent of Choice of Time Vacation is Taken (cont.)</i>	<i>Sales Personnel</i>	<i>Craftsmen</i>	<i>Housewives</i>	<i>Retired</i>	
Has a choice	54%	47%	27%	54%	83%
Has limited choice	17	16	28	17	14
Has no choice	29	36	38	21	3
Not ascertained	•	1	7	8	•
Total	100%	100%	100%	100%	100%

*Less than 0.5 per cent

Note: Answers from 30 adults from families where the head was a farmer, student or unemployed are not included because they constituted bases too small for analysis.

be less likely than other families to have an unrestricted choice. Otherwise families in which the head is in one occupation are about as likely to have their choice of when they take their trip as families whose head is in another type of work. The big difference between people of different socio-economic status seems to be in whether they take a trip rather than in their freedom as to when they take it.

Choosing the Mode of Travel

Of those planning a vacation trip in the next twelve months, nearly all seemed to know in May and June 1958 by what mode of travel they intended to reach their destination. Over 80 per cent expected to go by automobile (Table 37). The planned choice of mode of travel, however, depends on the distance to the destination. Of those who expect to go to destinations under 300 miles away, hardly any plan to fly. Of those who expect to go to points 1,000-1999 miles away, 11 per cent expect to fly; and of those who expect to go to points over 2,000 miles away, about a quarter expect to fly. The proportion who expect to go by train is low for the distances under 200 miles, remains about 5 or 6 per cent for distances in the broad range 200 to 1,999 miles, but goes to 13% for the longest trips. Among the common carriers, bus travel is most frequent for the shortest trips, and least, for the longest. Relatively speaking, the auto is in the worst competitive position for the longest trips. The proportion who plan to go by car falls off for trips over 1,000 miles.

Table 37

Choice of Mode of Travel	Per Cent of Adults Planning a Vacation Trip						
	Distance to Vacation Destination (miles)						
	All	100-199	200-299	300-499	500-999	1000-1999	2000 or more
Air	5%	*	*	1%	3%	11%	26%
Rail	6	3	6	5	5	6	13
Bus	3	6	3	4	5	3	*
Auto	82	91	90	86	84	78	40
Two or more modes	2	*	*	2	2	2	4
Other	1	*	1	*	*	*	15
Not ascertained	1	*	*	2	1	*	2
Total	100%	100%	100%	100%	100%	100%	100%

*Less than 0.5 per cent

The planned choice of mode is also influenced by the number of people who are expected to go. Of those who expect to have no companion, only one in four expects to drive. Of those who expect one companion, three out of four expect to drive. Of the people who will go in larger parties, 90 per cent or more plan to go by automobile (Table 38).

Paying for the Next Vacation Trip

How do people expect to pay for their trips? Those who expect to go by air, rail, or bus were asked: "Will you pay cash for your ticket, or use a plan where you pay for it later so

Table 38

Choice of Mode of Travel	Per Cent of Adults Planning a Vacation Trip						
	Number of Companions						
	All	None	One	Two	Three	Four	5 or more
Air	5%	11%	8%	1%	4%	5%	2%
Rail	6	24	8	2	3	3	2
Bus	3	23	1	3	1	1	•
Auto	82	24	76	91	90	91	96
Two or more modes	2	3	3	2	1	•	•
Other	1	13	3	•	•	•	•
Not ascertained	1	2	1	1	1	•	•
Total	100%	100%	100%	100%	100%	100%	100%

• Less than 0.5 per cent

much a month?" The distribution of answers appears in Table 39. The results are striking: nobody in the sample said he was planning to use a pay later plan. No doubt a larger sample would have turned up a few people, but the proportion in the population must be very small. It is possible, of course, that some of the people not now planning to use this method will in fact do so. The best potential customers for the pay later plans may be those who do not plan their trips well in advance.

Table 39

Plans for Paying for Vacation Trip	Per Cent of Adults Planning to Take a Trip by Air, Rail, or Bus
Pay cash	87%
Use pay later plan	—
Not ascertained	13
Total	100%

How do people intend to raise the money? All of those who expect to take a vacation trip were asked: "How do you expect to pay for this trip . . . will you save up money specially, or use other savings, or pay for it out of your income, or what?" Half expect simply to pay for the trip out of income (Table 40). This result is consistent with the finding that the proportion of the population who plan to take a vacation trip is much higher in the middle and upper income groups than among those whose incomes are smaller. To pay for a trip of any length out of current income requires either strict economy or a fairly substantial income.

One family in four expects to save up money specially for the trip. Another group which is almost as large expects to make use of other savings, that is, of money not saved up specially for this trip.

Table 40

<i>Plans for Paying for Vacation Trip</i>	<i>Percent of Adults Planning a Vacation Trip**</i>
Save up money specially	24%
Use other savings	19
Pay for it out of income	54
Borrow, pay on installment plan	1
Use a windfall	•
Someone else will pay; prize, gift, etc.	2
Not ascertained	5

*Less than 0.5 per cent

**Adds to more than 100 per cent because of multiple answers

One section of the questionnaire in this survey was devoted to a brief exploration of people's experience with different types of lodgings and their preferences among them. Questions were also asked about the lodgings people plan for their next vacation.

Experience With Different Types of Lodgings

Of all adults, about 59 per cent have at some time in their lives stayed overnight in a motor court or motel, 56 per cent have stayed in a hotel, and 24 per cent in a tourist home (Table 41). Some people, of course, have stayed in more than one type of lodging. Among them, the largest group, a quarter of all adults, are those who have stayed in a hotel and also have stayed in a motor court. About one adult in five has stayed in all three types of lodging, hotel, motel, and tourist home. One out of four, however, has not stayed in any one of the three.

The higher the income of the family to which an adult belongs, the broader his experience with different types of lodgings. About half of the adults from families with incomes below \$3000 have not stayed in any of the types of lodging studied, but only 5 per cent of those with incomes over \$7,500 have stayed in none of them. The proportion who have stayed in a hotel rises from 37 per cent of those with incomes below \$3000 to 79 per cent of those with incomes over \$7,500. The proportion who have stayed at a tourist home rises from 17 per cent to 35 per cent over the same income range. The proportion who have stayed in a motor court rises from 32 per cent to 86 per cent.

Table 41

Types of Lodging People Have Ever Used	Proportion of Adult Population				
	Family Income				
	All	Under \$3,000	\$3,000- 4,999	\$5,000- 7,499	\$7,500 and over
Hotel only	10%	12%	12%	10%	6%
Tourist only	1	2	1	1	*
Motor court only	13	7	17	15	12
Hotel and tourist home	2	2	2	3	1
Hotel and motor court	25	12	23	30	40
Tourist and motor court	2	2	1	3	2
Has stayed in all three	19	11	16	20	32
Has stayed in none of these	24	47	24	16	5
Not ascertained	4	5	4	2	2
Total	100%	100%	100%	100%	100%
Per Cent of Adults Who Have Used					
Hotels	56%	37%	53%	63%	79%
Tourist homes	24	17	20	27	35
Motor courts	59	32	57	68	86

*Less than 0.5 per cent

People with experience with more than one type of lodging were asked which they enjoyed most. Only about half of the adult population have stayed in two or more types of lodging, and of these a few expressed no choice, so that only 45 per cent actually stated which type of lodging they enjoyed most. Of the 45 per cent, 36 per cent said they enjoyed most staying in a motor court or motel, while 8 per cent said, a hotel, and only one per cent a tourist home (Table 42). These results are influenced, however, by the proportion of the population who have stayed in each type of lodging. The fairest comparison is perhaps that made by adults who have had experience with all three types of accommodation. Of these, 73 per cent prefer a motor court or motel, while 16 per cent enjoy most a hotel, and only 3 per cent, a tourist home. There can be little question that most people prefer motels.

Table 42

<i>Types of Lodging Enjoyed Most</i>	<i>Per Cent of Adults Who Have Used</i>				
	<i>All Adults</i>	<i>Hotel and Tourist Home</i>	<i>Hotel and Motor Court</i>	<i>Tourist Home and Motor Court</i>	<i>Stayed in All Three</i>
Hotel	8%	58%	15%	—	16%
Tourist home	1	30	—	7	3
Motor court	36	8	76	87	73
No preference, don't know	3	4	8	3	6
Has not stayed in two of above, preference not asked	51	—	—	—	—
Not ascertained	1	*	1	3	2
Total	100%	100%	100%	100%	100%

* Less than 0.5 per cent

Respondents were asked to give some indication of the reasons for their preferences, and many of them did so. The distribution of comments is shown in Table 43. Since the question was asked in terms of what people enjoyed, few discussed price. Of the favorable comments about motels, the largest group refer to the physical arrangements. People like the easy access to the sleeping quarters from their automobiles. People also comment favorably about the service at motels, and about the comparatively relaxed and informal atmosphere. The question sequence was not designed to elucidate unfavorable comments, and few were made.

The people who commented favorably about hotels were most likely to speak in terms of service. Few people mentioned a relaxed atmosphere as a favorable characteristic of hotels. People tend to think of hotels as the most formal of the three types of lodging.

The great advantage of tourist homes compared to the other types of lodging in the eyes of the small group who prefer them is their less formal, more relaxed atmosphere (Table 43).

Table 43

<i>Comments about Types of Lodging Enjoyed Most</i>	<i>Per Cent of Adults Who Have Used</i>		
	<i>About Hotels**</i>	<i>About Tourist Homes**</i>	<i>About Motels**</i>
<i>Favorable:</i>			
Cheaper	4%	7%	8%
Good physical arrangement	16	19	49
Relaxed atmosphere	5	56	24
Better service	36	4	32
Other favorable comments	41	15	25
<i>Unfavorable:</i>			
More expensive	•	•	1
Poor physical arrangement	4	4	•
More formal; less homelike	2	•	•
Poor service	2	•	•
Other unfavorable comments	4	•	2
Not ascertained	4	18	1

*Less than 0.5 per cent

**Adds to more than 100 per cent because of multiple answers

Quotations from some of the respondents may indicate how people talk about the different types of lodging:

Electrical engineer — age 28, single, income \$6000-7499, New York State, has stayed in hotels, tourist homes, motels —

"Motels are most convenient for parking and unloading the car. You also get more modern accommodations than in a hotel."

Wife of service station attendant — age 44, income \$3000-3999, Missouri, has stayed in hotels and motels —

"You usually pull right up to the door of a motel and go in. You don't have to go through a lobby. It's more convenient to unload right at the door and load back up."

Wife of florist — age 46, income \$10,000-14,999, Missouri, has stayed in hotels and motels —

"The atmosphere in a motel is a little more like home, more private."

Crane operator in steel mill — age 58, income \$5000-5999, Colorado, has stayed in motels and hotels —

"Motels are located on the highway and it seems so easy to stop there."

Wife of truck mechanic — age 50, income \$6000-7499, Connecticut, has stayed in motels, hotels and tourist homes —

"You get more privacy in a motel and you can leave early in the morning."

Railroad employee — age 40, income \$4000-4999, California, has stayed in hotels and motels —

"If we can afford it, a hotel seems like more of a change."

Widow — age 79, income \$2000-2999, Pennsylvania, has stayed in hotels and tourist homes —

"You get good service and good meals at a hotel. You meet lots of nice people to talk to."

Accountant — age 28, income \$4000-4999, two children, New Jersey, has stayed in hotels, tourist homes, motels —

"Motels are very convenient with children. It's easy for them to play outdoors."

Widow — age 40, income \$7500-9999, Ohio, has stayed in hotels, motels —

"If you want to shop or see the town, stay at a hotel, but a motel if you are just traveling through."

Toolmaker — age 28, income \$7500-9999, New Jersey, has stayed in tourist homes, motels —

"I like a tourist home because you get food there so it's convenient."

Supervisor at manufacturing plant — age 44, income \$7500-9999, Ohio, has stayed in hotels, motels, tourist homes —

"There is more privacy in a motel — no bellhops bothering you."

Social worker — age 48, income \$7500-9999, Connecticut, has stayed in hotels, tourist homes, motels —

"Hotels are quiet, centrally located, and you can generally get a good meal."

Wife of crane operator — age 28, income \$5000-5999, Kentucky, has stayed in hotels, motels, tourist homes —

"In the East, tourist homes are better, in the West, motels. Up East tourist homes are so friendly. All you see is motels out West."

Machine operator — age 28, income \$3000-3999, Connecticut, has stayed in hotels, motels, tourist homes —

"In a hotel you don't lack for nothing. Just pick up the telephone for everything you need."

Lodging on the Next Vacation Trip

People who expect to take a vacation trip in the next twelve months were asked to discuss their plans in some detail, as discussed in Chapter V. Among other things, they were asked in what type of lodging they expected to spend the nights away from home, in hotels, motels, with relatives, in their own vacation home, or what. Some people, of course, expect to make use of more than one type of lodging. The most popular are the motels. Of all those planning a vacation trip, 45 per cent expect to spend one or more nights in a motel (Table 44). The next most common plan is to stay with a relative. Thirty-seven per cent expect to spend at least one night in the home of a relative. Thirteen per cent plan to stay in a hotel.

The length of time people expect to be away on their vacation trip is related to the type of lodging they expect to use. The most pronounced differences are between those who expect to be away over a month and those who expect to be gone for a shorter time. The group who expect to be gone for a month or more, however, is relatively small, amounting to about one in twelve of those who plan a vacation trip. Of this group, 14 per cent expect to stay in their own vacation home, compared to 2 per cent of those who will be gone for shorter periods. Of those who expect to be gone over a month, only 27 per cent plan to stay with relatives, while of those who will be away less than a week, 45 per cent have this intention. Finally, of those who will be away over a month, 24 per cent expect to stay in a hotel at some time while they are away, compared to only 12 per cent of those who will be away for shorter periods.

Of those who plan a vacation trip, 5 per cent expect to go camping. Of those who will be gone over a month, however, less than one per cent plan to camp.

Table 44

Per Cent of Adults Planning Vacation Trip

Length of Time Expect to be Away

<i>Types of Lodging Planned for Next Vacation Trip</i>	<i>All Adults**</i>	<i>Less than a week**</i>	<i>7-10 days**</i>	<i>11 days to 2 weeks**</i>	<i>15 days to a month**</i>	<i>Over a month**</i>
Hotels	13%	12%	12%	12%	14%	24%
Tourist home	1	*	*	1	1	2
Trailer	1	2	1	1	*	4
Motor court	45	33	48	46	54	37
With relatives	37	45	37	33	38	27
Own vacation home	3	1	1	2	2	14
Rent vacation home	6	4	6	8	6	2
Camping	5	4	5	6	4	*
Other	6	6	3	7	8	12
Not ascertained	5	4	2	8	7	6

*Less than 0.5 per cent

**Adds to more than 100 per cent because of multiple answers

CAR RENTALS VII

How many people ever have rented a "drive-it-yourself" automobile? Who are they? In an attempt to obtain some information on these topics a brief sequence of questions was asked of all adults in this survey

Altogether, 7 per cent of all adults reported that at some time they have rented an automobile on this basis. As might be expected, more people in the upper income groups have rented a car. Of those with incomes over \$7500, 16 per cent report renting a car at some time, compared to only 3 per cent of the adults in the income group below \$3000.

Table 45

<i>Experience with Drive-It-Yourself Autos</i>	<i>Proportion of Adult Population</i>				
	<i>All</i>	<i>Under \$3,000</i>	<i>Family Income</i>		
			<i>\$3,000-4,999</i>	<i>\$5,000-7,499</i>	<i>\$7,500 and over</i>
Has rented	7%	3%	3%	8%	16%
Has not rented	92	95	95	92	83
Not ascertained	1	2	2	•	1
Total	100%	100%	100%	100%	100%

*Less than 0.5 per cent

More people report that they have rented a car on personal trips than on business trips. Four per cent of all adults say that they have rented a car for use on personal trips only, while only one per cent have rented a car for both business and personal trips, and 2 per cent for use only on business trips. The overlap between the two types of users is thus rather small. It is not apparently true that most users began with renting a car for business purposes, became accustomed to the practice, and began renting for personal use, too. There probably are such people, but they are at most about one out of five of those who have ever rented a car for personal use. The fact that business users of rented cars are a relatively small group of people does not imply that they account for a correspondingly small share of the car rental business. It is probable that the people who rent cars for business purposes do so much more frequently than those who rent cars for personal trips.

Table 46

<i>Purpose of Renting Drive-It-Yourself Autos</i>	<i>Per Cent of All Adults</i>
Used on business trips only	2%
Used on personal trips only	4
Used on both	1
Not ascertained	•
Never rented a car	93
	100%

*Less than 0.5 per cent

APPENDIX A

SAMPLING ERRORS

and Interview Bases for Text Tables

Table A
Approximate Sampling Errors of Percentages*
For "Per Interview" Responses
(Expressed in Percentages)

Reported Percentage	Number of Interviews										
	4200	3000	2000	1500	1000	700	500	400	300	200	100
50	1.5	1.8	2.2	2.6	3.2	3.8	4.5	5.0	5.8	7.1	10.0
	2.6	2.9	3.4	3.9	4.6	5.3	6.1	6.7	7.6	9.1	12.7
30 or 70	1.4	1.7	2.0	2.4	2.9	3.5	4.1	4.6	5.3	6.5	9.2
	2.3	2.7	3.2	3.5	4.2	4.8	5.6	6.1	6.9	8.4	11.6
20 or 80	1.2	1.5	1.8	2.1	2.5	3.0	3.6	4.0	4.6	5.7	8.0
	2.0	2.3	2.8	3.1	3.7	4.2	4.9	5.3	6.0	7.3	10.2
10 or 90	0.9	1.1	1.3	1.5	1.9	2.3	2.7	3.0	3.5	4.2	6.0
	1.5	1.8	2.1	2.3	2.8	3.2	3.6	4.0	4.5	5.5	7.6
5 or 95	0.7	0.8	1.0	1.1	1.4	1.6	1.9	2.2	2.5	3.1	4.4
	1.1	1.3	1.5	1.7	2.0	2.3	2.7	2.9	3.3	4.0	5.5

*The sampling error measures the sampling variability, that is, the variations that might occur by chance because only a sample of the population is surveyed. For most items the chances are 95 in 100 that the value being estimated (the percentage of spending units possessing a given attribute) lies within a range equal to the reported percentages plus or minus the sampling error.

Two estimates of the sampling error are presented for each cell. The lower values are based on the standard error formula for simple random samples. The higher values are based on extensive computations of individual sampling errors carried out on National Travel Market Survey data, and allow for the departures from simple random sampling in the Survey design such as stratification and clustering.

The sampling error does not measure the total error involved in specific survey estimates since it does not include non-response and reporting errors.

Table B
Sampling Errors of Differences*
For "Per Interview" Responses
(Expressed in Percentages)

Size of Subgroup	2000	Size of Subgroup						
		1500	1000	700	500	300	200	100
For percentages from about 35% to 65%								
2000	3.2-4.9	3.4-5.2	3.9-5.7	4.4-6.3	5.0-7.0	6.2-8.3	7.4-9.8	10.2-13.2
1500		3.7-5.5	4.1-6.0	4.6-6.5	5.2-7.2	6.3-8.4	7.5-9.9	10.3-13.3
1000			4.5-6.5	4.9-7.0	5.5-7.6	6.6-8.9	7.8-10.2	10.5-13.5
700				5.4-7.4	5.9-8.0	6.9-9.2	8.0-10.5	10.7-13.8
500					6.3-8.6	7.2-9.7	8.4-11.0	11.0-14.1
300						8.2-10.7	9.1-11.9	11.5-14.8
200							10.0-12.9	12.2-15.7
100								14.1-18.0
For percentages around 20% and 80%								
2000	2.5-3.9	2.7-4.1	3.1-4.6	3.5-5.0	4.0-5.6	5.0-6.6	5.0-6.6	8.2-10.6
1500		2.9-4.4	3.3-4.8	3.7-5.2	4.1-5.8	5.1-6.7	6.0-7.9	8.2-10.6
1000			3.6-5.2	3.9-5.6	4.4-6.1	5.3-7.1	6.2-8.2	8.4-10.8
700				4.3-6.0	4.7-6.4	5.5-7.4	6.4-8.4	8.6-11.0
500					5.1-6.8	5.8-7.8	6.7-8.8	8.8-11.3
300						6.5-8.6	7.3-9.5	9.2-11.8
200							8.0-10.3	9.8-12.6
100								11.3-14.4
For percentages around 10% and 90%								
2000	1.0-2.9	2.1-3.1	2.3-3.4	2.6-3.8	3.0-4.2	3.7-5.0	4.5-5.9	6.1-7.9
1500		2.2-3.3	2.4-3.6	2.7-3.9	3.1-4.3	3.8-5.0	4.5-6.0	6.2-8.0
1000			2.7-3.9	3.0-4.2	3.3-4.6	3.9-5.3	4.7-6.1	6.3-8.1
700				3.2-4.5	3.5-4.8	4.1-5.5	4.8-6.3	6.4-8.3
500					3.8-5.1	4.3-5.8	5.0-6.6	6.6-8.5
300						4.9-6.4	5.5-7.1	6.9-8.9
200							6.0-7.7	7.3-9.4
100								8.5-10.8
For percentages around 5% and 95%								
2000	1.4-2.1	1.5-2.3	1.7-2.5	1.9-2.7	2.2-3.0	2.7-3.6	3.2-4.3	
1500		1.6-2.4	1.8-2.6	2.0-2.9	2.2-3.1	2.8-3.7	3.3-4.3	
1000			1.9-2.8	2.1-3.0	2.4-3.3	2.9-3.9	3.4-4.4	
700				2.3-3.2	2.6-3.5	3.0-4.0	3.5-4.6	
500					2.8-3.7	3.1-4.2	3.6-4.8	
300						3.6-4.7	4.0-5.2	
200							4.4-5.6	

*The values shown are the differences required for significance (95 per cent probability) in comparisons of percentages derived from two different subgroups of the National Travel Market Survey. Two values — low and high — are given for each cell. See note to Table A.

INTERVIEW BASES FOR TEXT TABLES

TABLE

1	Travel Survey, 1955	8,485 interviews
	Travel Survey, 1957	3,149 interviews
	Travel Survey, 1958	1,456 interviews
2	All adults	1,456 interviews
	Adults from families with incomes of:	
	Under \$3,000	384 interviews
	\$3,000-4,999	376 interviews
	\$5,000-7,499	350 interviews
	\$7,500 and over	288 interviews
3	Travel Survey, 1955	8,485 interviews
	Travel Survey, 1956	5,255 interviews
	Travel Survey, 1957	3,149 interviews
	Travel Survey, 1958	1,456 interviews
4	All adults	1,456 interviews
5	Adults who have flown	426 interviews
	Adults who took an air trip "last year"	130 interviews
	Adults who did not take an air trip "last year"	289 interviews
6	Adults who have flown	425 interviews
	Adults who like flying high	143 interviews
	Adults to whom height makes no difference	206 interviews
	Adults who don't like flying high	53 interviews
7	Number of comments given	205 comments
8	Number of comments given	157 comments
9	Travel Survey, 1957	1,493 interviews
	Travel Survey, 1958	1,456 interviews
10	All adults	1,456 interviews
	Adults who would like or accept jet travel	615 interviews
	Adults who would not like jet travel	733 interviews
11	All adults	1,456 interviews
	Adults who have taken an air trip	426 interviews
	Adults who have never taken an air trip	1,019 interviews
12	All adults	1,456 interviews
	Adults from families with incomes of:	
	Under \$3,000	384 interviews
	\$3,000-4,999	376 interviews
	\$5,000-7,499	350 interviews
	\$7,500 and over	288 interviews
13	All adults	1,456 interviews
	Adults with grade school education or less	491 interviews

INTERVIEW BASES FOR TEXT TABLES (cont.)

TABLE

	Adults, high school educated	694 interviews
	Adults, college educated	253 interviews
14	All adults	1,456 interviews
	Adults, age 18-34	401 interviews
	Adults, age 35-44	388 interviews
	Adults, age 45-64	464 interviews
	Adults, 65 and over	195 interviews
15	All adults	1,456 interviews
	Men	645 interviews
	Women	808 interviews
16	All adults	1,456 interviews
	Adults who would like or accept jet travel	615 interviews
	Adults who would not like jet travel	733 interviews
17	All adults	1,456 interviews
18	All adults	1,456 interviews
19	All adults	1,456 interviews
20	All adults	1,456 interviews
21	Adults who have traveled overseas	301 interviews
22	All adults	1,456 interviews
	Adults from families with incomes of:	
	Under \$3,000	384 interviews
	\$3,000-4,999	376 interviews
	\$5,000-7,499	350 interviews
	\$7,500 and over	288 interviews
23	All adults	1,456 interviews
24	All adults	1,456 interviews
25	All adults	1,456 interviews
26	All adults	1,456 interviews
27	All adults	1,456 interviews
28	All adults	1,456 interviews
	Adults from families with incomes of:	
	Under \$3,000	384 interviews
	\$3,000-4,999	376 interviews
	\$5,000-7,499	350 interviews
	\$7,500 and over	288 interviews
29	Adults who have ever taken a vacation trip	1,126 interviews

INTERVIEW BASES FOR TEXT TABLES (cont.)

TABLE

30	Adults who have ever taken a vacation trip	1,112 interviews
	Adults mentioning:	
	Cost	148 interviews
	Time	44 interviews
	Hunting, fishing	73 interviews
	Sight-seeing	186 interviews
	Other activities	74 interviews
	Habit	29 interviews
	People	387 interviews
	"A Place We Can Enjoy"	119 interviews
	Other factors	241 interviews
31	Adults planning a vacation trip	626 interviews
32	All adults	1,456 interviews
	Adults from families with incomes of:	
	Under \$3,000	384 interviews
	\$3,000-4,999	376 interviews
	\$5,000-7,499	350 interviews
	\$7,500 and over	288 interviews
33	Adults planning a vacation trip	626 interviews
34	Adults planning a vacation trip	626 interviews
	Adults having a choice of vacation time	297 interviews
	Adults having limited choice of vacation time	134 interviews
	Adults having no choice of vacation time	180 interviews
35	Number of factors mentioned	236 factors
36	Adults planning a vacation trip	626 interviews
	Adults from families where occupation of family head is:	
	Professional, technical	89 interviews
	Self-employed, managers	107 interviews
	Clerical	45 interviews
	Sales Personnel	35 interviews
	Craftsmen	202 interviews
	Laborers, Service Workers	55 interviews
	Housewives	24 interviews
	Retired	30 interviews
37	Adults planning a vacation trip	617 interviews
	Distance to vacation destination:	
	100-199 miles	95 interviews
	200-299 miles	78 interviews
	300-499 miles	111 interviews
	500-999 miles	101 interviews
	1,000-1,999 miles	103 interviews
	2,000 or more miles	46 interviews

INTERVIEW BASES FOR TEXT TABLES (cont.)

TABLE

38	Adults planning a vacation trip	626 interviews
	Adults with the following number of companions:	
	None	38 interviews
	One	198 interviews
	Two	119 interviews
	Three	131 interviews
	Four	65 interviews
	Five or more	45 interviews
39	Adults planning vacation trip by air, rail, or bus	111 interviews
40	Adults planning a vacation trip	626 interviews
41	All adults	1,456 interviews
	Adults from families with incomes of:	
	Under \$3,000	384 interviews
	\$3,000-4,999	376 interviews
	\$5,000-7,499	350 interviews
	\$7,500 and over	288 interviews
42	All adults	1,456 interviews
	Adults who have used:	
	Hotel and Tourist Home	26 interviews
	Hotel and Motor Court	368 interviews
	Tourist Home and Motor Court	30 interviews
	All Three Types of Lodging	283 interviews
43	Adults who have used and commented on:	
	Hotels	165 interviews
	Tourist Homes	27 interviews
	Motor Courts	569 interviews
44	Adults planning a vacation trip	626 interviews
	Adults who expect to be away:	
	Less than a week	121 interviews
	7-10 days	155 interviews
	11 days to 2 weeks	194 interviews
	15 days to a month	103 interviews
	Over a month	49 interviews
45	All adults	1,456 interviews
	Adults from families with incomes of:	
	Under \$3,000	384 interviews
	\$3,000-4,999	376 interviews
	\$5,000-7,499	350 interviews
	\$7,500 and over	288 interviews
46	All adults	1,456 interviews

APPENDIX B

THE QUESTIONNAIRE

SPRING OMNIBUS SURVEY

Survey Research Center, University of Michigan

TRAVEL QUESTIONS

1. Have you ever taken a vacation trip to a place 100 miles or more away? ☐ Yes ☐ No

(IF YES)

1a. When you take a vacation trip what do you consider in deciding where to go? _____

(IF NOT CLEAR)

1b. Do you always go to the same place? _____

2. We're interested in what types of lodgings people have used. Have you ever stayed overnight —

2a. in a hotel?

☐ Yes ☐ No

2b. in a tourist home?

☐ Yes ☐ No

2c. at a motor court or motel?

☐ Yes ☐ No

If has used two or more of above:

2d. Which of these types of lodging do you enjoy staying in most? _____

2e. Why? _____

3. Have you ever rented a "drive-it-yourself" automobile? ☐ Yes ☐ No

(IF YES)

3a. Were you traveling on business or for personal reasons or have you rented cars on both kinds of trips?

☐ Used on business trips only

☐ Used on personal trips only

☐ Used on both business and personal trips

4. Have you ever traveled overseas? ☐ Yes ☐ No

(IF YES)

- 4a. What parts of the world have you visited —

Europe? ☐ Yes ☐ No

South America? ☐ Yes ☐ No

Asia? ☐ Yes ☐ No

Australia? ☐ Yes ☐ No

Africa? ☐ Yes ☐ No

Other parts of the world? (Where?) _____

(IF R IS A MAN)

- 4b. Were you overseas as a civilian or were you in the armed forces?

☐ R is a woman ☐ R is a man — overseas in armed forces only

☐ R is a man — overseas as a civilian (only)

☐ R is a man — overseas both in armed forces and as civilian

5. Now I'm going to read you some sentences that we've started. We'd like you to give us a few words to finish the sentences. Don't bother to think over your answers, just say what occurs to you.

a. Mr. and Mrs. Smith want to go to Europe because _____

b. Mr. and Mrs. Brown were offered an expense-free trip to Europe but they don't want to go because _____

c. Traveling in foreign countries is _____

d. If I had my choice of any place in the whole world I'd like to see, I'd go to _____

e. If I were in Europe, the thing I would most like to do is _____

f. Traveling in the United States is _____

g. Automobile trips are _____

h. Plane trips are _____

i. If I could pick the way to spend my vacation this year I would _____

6. Do you expect to take a vacation trip in the next twelve months? _____

(IF YES OR MAYBE)

a. Do you think you definitely will go, you probably will, or are you undecided?

☐ definitely

☐ probably

☐ undecided

b. How long do you expect to be away? ☐ 1-2 days ☐ 3-6 days ☐ 7-10 days

☐ 11 days to 2 weeks ☐ 15 days to a month ☐ over a month

c. In what month do you expect to start your trip? ☐ May ☐ June ☐ July ☐ Aug

☐ Sept ☐ Oct ☐ Nov ☐ Dec ☐ Jan ☐ Feb ☐ March ☐ April ☐ May 1959

d. Some people can't get away from home except at a particular time while other people have a choice as to when they take their vacation trip. How about you? _____

e. Will you go by air, rail, bus, auto, or what? _____

(IF BY AIR, RAIL, OR BUS)

f. Will you pay cash for your ticket, or use a plan where you pay for it later so much a month?

☐ pay cash ☐ pay later plan _____

g. How many people will go besides yourself? _____

h. Where do you expect to go? (town and state) _____

i. About how far is that from here? _____

j. In what type of lodging do you expect to spend the nights away from home — in hotels, motels, with relatives, in your own vacation home, or what? _____

k. How do you expect to pay for this trip — will you save up money specially, or use other savings, or pay for it out of your income, or what? _____

7. Have you ever taken any trip to a place 100 miles or more away by air? ☐ Yes ☐ No
(IF YES)

8. Some people say that the higher a plane goes the better they like it, while others don't like to fly high. How do you feel? _____

8a. Why is that? _____

9. Some people say that the faster a plane flies the better they like it, while others don't like to fly fast. How do you feel? _____

9a. Why do you say so? _____

10. Did you take any air trips to places 100 miles or more away in the last twelve months?
☐ Yes ☐ No

IF TOOK AIR TRIP IN LAST TWELVE MONTHS

10a. How many? _____

10b. How many of your air trips were on first class flights? _____

IF TOOK 1ST CLASS FLIGHTS

10c. How many of these were business trips in connection with your work? _____

10d. And how often did you go by air coach? _____

IF TOOK COACH FLIGHTS

10e. How many of these were business trips in connection with your work? _____

11. As you probably know, there are plans for regular use of jet planes for passenger service. How would you feel about traveling in a jet plane? _____

11a. How long do you think it will be before the airlines begin using jet planes for carrying passengers? _____

12. In your opinion will jet planes be safer than the kind of plane they are using now, not as safe, or what? _____

12a. What do you have in mind? _____

12b. Anything else? _____

T H E T R A V E L M A R K E T

1 9 5 9 - 6 0

BY

EVA MUELLER, JOHN LANSING, AND THOMAS LORIMER

A STUDY OF THE FACTORS AFFECTING
THE CHOICE OF MODE OF TRAVEL
AMONG AMERICAN ADULTS, BASED
ON A SURVEY CONDUCTED BY THE
SURVEY RESEARCH CENTER OF
THE UNIVERSITY OF MICHIGAN

MAY 1961
INSTITUTE FOR SOCIAL RESEARCH
THE UNIVERSITY OF MICHIGAN
ANN ARBOR, MICHIGAN

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UNITED AIR LINES

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INTRODUCTION

This report presents the findings of the 1959-60 National Travel Market Survey conducted by the Survey Research Center of The University of Michigan. The survey is the fifth in a series of National Travel Market Surveys begun in 1955. Sponsors of the present survey were the Boeing Airplane Company, General Electric Company, General Motors Corporation, The Port of New York Authority, and United Airlines.

Purpose

The first purpose of the survey was to measure trends over time in common carrier travel and particularly in air travel. Aggregate data are available from other sources showing changes in the number of revenue passengers carried or in revenue passenger miles. Only surveys with representative samples of the population can tell us to what extent observed changes over time represent changes in the number of people traveling by a particular mode and in how far they are caused by changes in the number of trips per traveler. Survey data can also reveal what kinds of travelers (young or old, middle or upper income) and what kinds of trips (business, vacation) account for the changes in volume of traffic. For this trend analysis, questions asked in earlier surveys were repeated in identical form. New information was collected about overseas travelers as a first step toward trend studies for that market.

The second purpose of the survey was to analyze the choice between modes of transportation. This choice may be influenced by socio-economic and locational characteristics of the traveler, by his felt needs and

preferences, and by characteristics of the trip itself. The survey was designed to throw some light on all these dimensions of the choice process. For the first time in this series of studies, particular attention was given to the choice between the family car and the airplane for long-distance trips.

The Sample

The data on which this report is based were collected in two stages. In January-February 1960, interviews were conducted with about 3000 spending units as part of the Survey Research Center's annual Survey of Consumer Finances. Information was obtained about the air travel of all adults in the household, regardless of what adult was the respondent. The same questions were repeated in October-November 1960 in a study including 1400 families. Again information was collected for each adult in the family. Since the two surveys are based on the same sampling and interviewing procedures, the two samples can be combined to form a larger sample and reduce sampling error. The two surveys yield information for approximately 8400 adults. In each case the air travel data relate to the twelve months preceding the survey. This air travel information is presented on a per adult basis.

The October-November 1960 survey contained, in addition to the air travel questions, inquiries about recent rail and bus trips, long-distance auto trips and factors relevant to the choice between modes of transportation. This information was obtained only for the respondent. Hence these data are based on a smaller sample of about 1400 cases and are presented on a per respondent basis. In the October-November 1960

survey, husband and wife were alternately predesignated as respondents; where the Head was not married, he (or she) was automatically the respondent. Relatives in the household (grown children, widowed parents, etc.) had no chance of being selected as respondents.

The sampling method employed by the Survey Research Center is known as multi-stage area sampling. For each of the two surveys the same 66 primary sampling units were selected (usually counties or groups of counties), including 12 of the largest metropolitan areas and 54 other sampling units selected by probability methods from all the nonmetropolitan counties in the country. Within the selected primary sampling areas cities, towns, or open country segments were selected, then city blocks, and finally dwelling units, always by a process of random choice. The sample thus selected represents a cross-section of private dwelling units in the continental United States. It excludes the institutional population, transients, and most military personnel. Of all households designated for an interview in the two surveys, 84 per cent were in fact successfully interviewed.

Staff

The Survey Research Center's studies are a cooperative undertaking by a group of people. The Survey Research Center is a division of the Institute for Social Research of the University of Michigan. The Institute is under the direction of Rensis Likert, while the director of the Center is Angus Campbell. This study was carried out in the Economic Behavior Program of the Center, George Katona, Director. The Center's

field staff is headed by Charles Cannell and the sampling section by Leslie Kish. John B. Lansing was responsible for the planning and design of this study. The analysis was carried out and this report written by Eva Mueller and Thomas Lorimer

CHAPTER I

TRENDS IN COMMON CARRIER TRAVEL, 1955-60

The proportion of American adults who take one or more common carrier trips in the course of a year has not increased in the past three years. It remains relatively small - only slightly over 20 per cent.^{1/} These findings are best explained by the great popularity of the automobile as a mode of travel. In 1960^{2/} about twice as many people took a long distance trip (to a place more than 500 miles away) by auto as took a long distance trip by air, rail and bus combined. If shorter trips were included in the comparison, the predominance of automobile travel would be more striking still.^{3/}

Among the common carriers, there has been growth in the past five years in the proportion of people traveling by air, while the proportion traveling by rail has declined and that traveling by bus remained approximately unchanged. In 1960 for the first time, the data show more people taking a common carrier trip by air than by either rail or bus. In this chapter we shall be concerned only with trends in common carrier travel. Later chapters will deal with the factors which affect the choice between various modes of transportation, including the automobile.

1/ A common carrier trip is defined here as a trip 100 miles or more away by air, rail, or bus.

2/ 1960 interviews were taken in October-November 1960 and relate to the previous twelve months.

3/ See John B. Lansing, The Travel Market 1957, Survey Research Center, University of Michigan, p. 3.

Table 1 compares the proportion of adults who took a common carrier trip in 1957 and 1960 within major income groups. The table shows small declines in common carrier travel in five out of the six income groups. These downward changes are not statistically significant, but we are safe in concluding that the proportion of people who travel by common carrier has not risen in recent years.

Table 1 also shows a pronounced relationship between income and the likelihood of common carrier travel, with families in the upper income brackets much more likely to travel by common carrier than others. Since more people shifted into the higher income brackets between 1957 and 1960, one might have expected a rise in common carrier travel on that account alone. The finding that no rise in common carrier travel occurred under these circumstances points to the need for careful study of people's preferences between the various modes of transportation. It should be added however that the 1957^{4/} data relate to a period of better business conditions than the 1960 data. To some extent cyclical factors may be obscuring longer run trends, when the two years are compared.

Table 2 presents the trend in air travel, and shows that the proportion of people traveling by air has grown in the last five years. Yet the growth in participation was greater between 1955 and 1957 than in the following three years. In fact, if changes within income groups are examined, we find for the past three years no significant increase in the percentage of air travelers in any group and small declines in several. It follows that the modest rise in the proportion of air travelers during the past three years is attributable

^{4/} 1957 interviews relate to the twelve months prior to May-June and November-December 1957.

Table 1

Use of Common Carrier by Family Income
(per cent of all respondents)

Use of Common Carrier	All Incomes		Family Income					
			Under		\$3000		\$3000-4999	
	1957	1960	1957	1960	1957	1960	1957	1960
Took one or more common carrier trips in "last 12 months" <u>1/</u>	22.7%	21.2%	18%	15%	19%	18%	20%	21%
Took no common carrier trip in "last 12 months" <u>1/</u>	77.0	77.4	82	83	81	81	79	78
Not ascertained	0.3	1.4	*	2	*	1	1	1
Total	100.0%	100.0%	100%	100%	100%	100%	100%	100%
Number of respondents	(2849)	(1413)	(766)	(355)	(763)	(306)	(756)	(367)

Use of Common Carrier			<u>Family Income</u>					
			<u>\$7500-9999</u>		<u>\$10,000-14,999</u>		<u>\$15,000 and over</u>	
	<u>1957</u>	<u>1960</u>	<u>1957</u>	<u>1960</u>	<u>1957</u>	<u>1960</u>	<u>1957</u>	<u>1960</u>
Took one or more common carrier trips in "last 12 months" <u>1/</u>			32%	17%	41%	39%	63%	55%
Took no common carrier trip in "last 12 months" <u>1/</u>			68	82	59	61	37	39
Not ascertained			*	1	*	*	*	6
Total			100%	100%	100%	100%	100%	100%
Number of respondents			(256)	(163)	(140)	(119)	(62)	(49)

* Less than 0.5 per cent.

1/ The "last 12 months" refers to the 12-month period preceeding each survey. The 1957 interviews were taken in May-June and November-December 1957. The 1960 interviews were taken in October-November 1960.

Table 2

Use of Air by Family Income
(per cent of all adults)

<u>Use of Air</u>	<u>All Incomes</u>			<u>Family Income</u>								
				<u>Under \$3000</u>			<u>\$3000 - 4999</u>			<u>\$5000 - 7499</u>		
	<u>1955</u>	<u>1957</u>	<u>1959-60</u>	<u>1955</u>	<u>1957</u>	<u>1959-60</u>	<u>1955</u>	<u>1957</u>	<u>1959-60</u>	<u>1955</u>	<u>1957</u>	<u>1959-60</u>
Took an air trip	6.7%	8.8%	9.2%	2%	4%	2%	4%	5%	5%	8%	9%	7%
For business purposes	1.9	2.3	3.0	*	1	*	1	1	1	2	2	2
For non-business purposes	4.4	5.7	5.5	2	3	2	3	4	4	5	6	5
For both purposes	0.4	0.8	0.7	*	*	*	*	*	*	1	1	*
Did not take an air trip	91.0	90.4	90.5	96	96	98	94	94	95	90	91	93
Not ascertained	2.3	0.8	0.3	2	*	*	2	1	*	2	*	*
Total	100.0%	100.0%	100.0%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of adults	(8485)	(3149)	(8329)	(2252)	(837)	(1743)	(2658)	(836)	(1732)	(1990)	(829)	(2309)

<u>Use of Air</u>	<u>Family Income</u>								
	<u>\$7500 - 9999</u>			<u>\$10,000 - 14,999</u>			<u>\$15,000 and over</u>		
	<u>1955</u>	<u>1957</u>	<u>1959-60</u>	<u>1955</u>	<u>1957</u>	<u>1959-60</u>	<u>1955</u>	<u>1957</u>	<u>1959-60</u>
Took an air trip	12%	19%	10%	23%	22%	21%	40%	45%	45%
For business purposes		4	7		7	7		11	13
For non-business purposes		7	10		15	12		24	21
For both purposes		1	2		1	3		5	11
Did not take an air trip	86	81	90	73	74	79	58	54	55
Not ascertained	2	*	*	4	4	*	2	1	*
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of adults	(709)	(284)	(1093)	(389)	(166)	(919)	(257)	(71)	(399)

entirely to the upward shift in the income distribution (i.e. the greater number of families in the higher income brackets). The data also suggest that the rise in the past three years was confined to business travel.^{5/}

So far we have measured frequency of air travel by the proportion of people taking one or more air trips during the previous 12 months. A second important measure is the number of trips taken. For people who travel frequently, it is difficult to recall their number of trips with accuracy. The data on number of trips therefore should not be read too closely. If there is some bias in the data, we may assume that it is in the same direction and similar in magnitude from one survey to the next, as long as identical questions and survey methods are employed. Hence the trend in number of trips is of interest.

Table 3 indicates that in the past three years the number of air trips per air traveler has increased more sharply than the number of air travelers.^{6/} The number of air trips per traveler rose from 2.7 in 1955 and 1957 to 3.3 in 1960, a rise of about 20 per cent.^{7/} This rise seems to have occurred primarily

5/ In addition, of course, air travel has grown because of the growth in the population.

6/ In this report and in the tables the word "trip" denotes a round-trip, unless otherwise indicated.

7/ The data regarding number of trips exclude individuals who took 60 or more air trips during the year. The reason for this exclusion is that sample surveys of the general population are not a satisfactory method of estimating the frequency of trips taken by very frequent travelers. A very small number of these individuals may make a substantial difference in an estimate of the mean number of trips per traveler. The preceding estimates, therefore, should be understood as referring to those business air travelers who take no more than 59 air trips a year, no more than an average of one air trip per week. Actually there were only 2 such frequent fliers among the 8329 individuals studied.

Table 3

Number of Air Trips Per Traveler and Per Adult, by Family Income

<u>Family Income</u>	<u>Number of Air Trips Per Air Traveler <u>1/</u></u>		
	<u>1955</u>	<u>1957</u>	<u>1959-60</u>
Under \$3000	0.87	1.21	1.68
\$3000 - 3999	1.36	1.80	1.62
\$4000 - 4999	2.26	3.95	1.36
\$5000 - 5999	2.98	1.97	1.87
\$6000 - 7499	2.17	2.05	2.24
\$7500 - 9999	1.99	2.82	2.87
\$10,000 - 14,999	3.98	3.17	3.36
\$15,000 and over	4.31	3.97	5.71
Number of air trips per traveler	2.65	2.72	3.26

<u>Family Income</u>	<u>Number of Air Trips Per Adult <u>2/</u></u>		
	<u>1955</u>	<u>1957</u>	<u>1959-60</u>
Under \$3000	0.02	0.05	0.04
\$3000 - 3999	0.04	0.09	0.08
\$4000 - 4999	0.09	0.10	0.07
\$5000 - 5999	0.17	0.14	0.09
\$6000 - 7499	0.21	0.21	0.17
\$7500 - 9999	0.24	0.54	0.28
\$10,000 - 14,999	0.93	0.68	0.68
\$15,000 and over	1.80	1.84	2.46
Number of air trips per adult	0.18	0.24	0.29
Number of cases	(8485)	(3149)	(8329)

1/ Number of trips in past twelve months reported by all adults in survey divided by number of adults who traveled by air in past 12 months.

2/ Number of trips in past twelve months reported by all adults in survey divided by number of adults.

among people with incomes of \$10,000 or more. The lower part of Table 3 shows the trend in the number of air trips per adult since 1955. These figures reflect the combined effect of the growing proportion of people who travel by air and the greater number of trips per air traveler. The two tendencies together have made for a sharp increase in the number of air trips per adult.

It is instructive to compare data on the number of revenue passengers carried by the total scheduled airline industry and the number of trips per adult (as estimated by the survey) times the number of adults. The two sets of data should show similar trends, although they are only roughly comparable. The number of revenue passengers carried rose by about 20 per cent in the 3 years from 1956-1957 to 1959-1960. The number of air trips per adult (Table 3) also rose by 20; in addition the adult population grew by about 3 per cent. For the whole 5-year period 1954-1955 to 1959-1960 the comparison is somewhat less satisfactory. The number of revenue passengers carried rose by about 45 per cent. The number of trips per adult shows a sharper rise; it went up about 60 per cent and the adult population about 5 per cent. However, "beginning in 1957 revenue passengers carried were reported on a basis which yielded slightly lower figures than the basis used in prior years."^{8/} In any case, both sets of data show a sharper rise for the two years 1954-1955 to 1956-1957 than for the three following years.

On the basis of the survey data one may summarize the trend over the past five years by saying that from 1955-1957 the growth of air travel was due largely to rising participation in air travel, while the number of trips per traveler increased little. From 1957-1960 growth was due primarily to the

^{8/} See Airtransport Facts and Figures 1961, Aviation Week, May 1, 1961, page 94.

fact that some travelers took more trips, either because they relied to a greater extent on air travel for most of their trips, or because improving air travel facilities stimulated the amount of travel, particularly business travel. The rise in the proportion of people who travel by air was of lesser importance in the past three years.

Table 4 shows the trend in the distribution of air travel between income groups. In 1959-60 nearly two-thirds of all air trips were made by people with incomes of \$10,000 or more. By comparison, 16 per cent of adults have family incomes of \$10,000 or more. It also appears that the concentration of air travel in the upper income groups has been increasing in recent years. The survey data indicate that those air travelers who are taking a greater number of trips per year are primarily people with incomes of \$10,000 or over.

Table 5 suggests that only a small part of the growth in the number of air travelers in the past three years represents a shift from rail to air travel. The proportion of adults who took a rail trip in the year prior to the survey declined from 11 per cent in 1957 to 9 per cent in 1960. The drop was limited, however, to non-business travelers, while the growth in air travel was primarily in the business category. Bus travel also declined from 1957 to 1960, but again the decline is in non-business travelers. The survey did not collect data on number of rail and bus trips.

Two explanations for the recent drop in non-business rail and bus travelers suggest themselves. The drop may reflect the lack of buoyancy in consumer spending which also affected sales of cars and major household appliances. That is, it may be due to the 1958 recession and the failure of the economy to sustain a vigorous expansion in 1959-1960. Secondly, the drop may be due to increasing competition of automobile travel - wider car ownership and better roads. Quite likely, both factors were of some importance.

Table 4

Distribution of Adults and of Air Trips by Family Income

<u>Family Income</u>	<u>Distribution of All Adults</u>		
	<u>1955</u>	<u>1957</u>	<u>1959-60</u>
Under \$3000	26.6%	26.6%	21.3%
\$3000 - 3999	16.1	13.3	9.7
\$4000 - 4999	15.3	13.3	11.1
\$5000 - 5999	12.9	13.7	13.1
\$6000 - 7499	10.6	12.6	14.6
\$7500 - 9999	8.3	9.0	13.1
\$10,000 - 14,999	4.5	5.3	11.0
\$15,000 and over	2.9	2.2	4.8
Not ascertained	2.8	4.0	1.3
Total	100.0%	100.0%	100.0%
Number of adults	(8485)	(3149)	(8329)

<u>Family Income</u>	<u>Distribution of All Air Trips</u>		
	<u>1955</u>	<u>1957</u>	<u>1959-60</u>
Under \$3000	2.5%	5.2%	2.8%
\$3000 - 3999	3.8	4.7	2.6
\$4000 - 4999	7.2	10.3	2.6
\$5000 - 5999	11.6	7.7	4.2
\$6000 - 7499	12.1	10.9	8.5
\$7500 - 9999	10.7	19.8	12.6
\$10,000 - 14,999	22.5	14.8	25.7
\$15,000 and over	28.2	16.5	40.0
Not ascertained	1.4	10.1	1.0
Total	100.0%	100.0%	100.0%
Number of air trips	(1573)	(769)	(2452)

Table 5

Use of Rail and Bus
(per cent of all adults)

<u>Use of Rail</u>	<u>All Adults</u>		
	<u>1955</u>	<u>1957</u>	<u>1960</u>
Took one or more rail trips in "last 12 months"	10.5%	11.2%	8.7%
For business purposes	1.7	1.9	1.8
For non-business purposes	8.5	9.0	6.5
For both purposes	0.3	0.3	0.4
Did not take a rail trip	87.2	88.0	89.6
Not ascertained	2.3	0.8	0.7
Total	100.0%	100.0%	100.0%
Number of adults	(8485)	(3149)	(1413)
<u>Use of Bus</u>			
Took one or more bus trips in "last 12 months"	6.6%	9.6%	7.1%
For business purposes	0.6	1.2	0.8
For non-business purposes	5.9	8.2	6.1
For both purposes	0.1	0.2	0.2
Did not take a bus trip	90.2	89.4	92.3
Not ascertained	3.2	1.0	0.6
Total	100.0%	100.0%	100.0%
Number of adults	(8485)	(3149)	(1413)

CHAPTER II

COMMON CARRIER TRAVEL IN 1960

The objective of the present chapter is to investigate some of the characteristics of common carrier travel as of 1960. This inquiry has three parts. First, the segment of the population who took common carrier trips is identified by ecological, demographic, and socio-economic characteristics. Second, characteristics of the respondent's most recent trip by any common carrier mode are examined for possible implications about the choice of mode. Finally, there is an analysis of the relationship between the mode actually taken and the alternative mode people reported they considered taking. Such an analysis may be suggestive of possible reasons for the choice of various modes of travel.

Who Took Common Carrier Trips in 1960?

Geographic location as measured by region and place of residence shows some association with the likelihood that a respondent has taken a common carrier trip during the past 12 months. As indicated in Table 6, residents of the West took a common carrier trip somewhat more frequently than people in the South; the Northeast and the North Central regions are in an intermediate position. Also, adults who live in the West are more likely to have taken a trip by air in the past twelve months than people in any other part of the country. Rail travel is most characteristic of those who live in the Northeast and North Central regions.

Table 6

Use of Common Carriers during the Past Twelve Months by Region and Place of Residence, 1960
(per cent of all respondents)

<u>Common Carriers Used in Past Year</u>	<u>Region</u>				
	<u>All</u>	<u>Northeast</u>	<u>North Central</u>	<u>West</u>	<u>South</u>
Took a common carrier trip ^{1/}	22%	20%	23%	26%	18%
Air	9	9	9	13	9
Rail	9	10	12	7	6
Bus	7	6	7	9	6
Took NO common carrier trip	77	79	75	72	81
Not ascertained whether took a trip by any common carrier	1	1	2	2	1
Total	100%	100%	100%	100%	100%
Number of respondents	(1413)	(344)	(403)	(195)	(471)

<u>Common Carriers Used</u>	<u>Place of Residence</u>				
	<u>12 Largest Metropolitan Cities</u>	<u>Other Cities of 50,000 and Over</u>	<u>Suburban Areas</u>	<u>Adjacent Areas</u>	<u>Outlying Areas</u>
Took a common carrier trip ^{1/}	27%	22%	24%	15%	19%
Air	10	12	15	6	5
Rail	12	8	10	6	7
Bus	8	9	6	4	9
Took NO common carrier trip	71	77	74	85	80
Not ascertained whether took a trip by any common carrier	2	1	2	*	1
Total	100%	100%	100%	100%	100%
Number of respondents	(200)	(202)	(407)	(262)	(341)

* Less than 0.5 per cent.

^{1/} The proportion taking a common carrier trip is smaller than the sum of the three modes, because some respondents took trips by more than one mode of common carrier in 1960.

Place of residence is defined in this report in terms of the distance a locality is from a place of 50,000 population or more. There are five categories: the 12 largest metropolitan cities (all major air and rail centers), other cities of 50,000 and over, the suburban areas immediately surrounding the cities, "adjacent areas" which go from the suburbs to a distance of 50 miles, and the "outlying areas" which are at least 50 miles from a city of 50,000. Individuals who live in central cities and suburban areas are more likely to take common carrier trips than those in the adjacent and outlying areas, and they also travel by air more frequently. The differences may be due to the fact that businessmen and professional people (who, as we shall see, have a particularly high frequency of common carrier travel) are concentrated in the urban and suburban areas. Proximity to airports and major rail centers also would seem to be a factor involved here.

The demographic variables of sex and age do not appear to be significant in determining the likelihood of common carrier travel, except for some decline in the 65 and over age group (Table 7). Men are more likely to take trips by air than by rail and least likely to go by bus. Among women the proportion using each mode is about equal.

As shown in Chapter I (Table 1), the percentage of adults who took a common carrier trip in 1960 is similar for all income groups up to the \$10,000 level and then rises sharply. Table 8 shows that modes of transportation also differ between income groups. Air travel assumes increasing importance as family income rises, but many people in the top income brackets take rail as well as air trips. Bus travel is most frequent among those with family incomes under \$3000.

Table 7

Use of Common Carrier During the Past Twelve Months by Sex and Age, 1960
(per cent of all respondents)

<u>Common Carriers Used in Past Year</u>	<u>Sex</u>	
	<u>Male</u>	<u>Female</u>
Took a common carrier trip ^{1/}	21%	22%
Air	11	8
Rail	8	9
Bus	5	9
Took NO common carrier trip	78	76
Not ascertained whether took a trip by any common carrier	1	2
Total	100%	100%
Number of respondents	(618)	(793)

<u>Common Carriers Used</u>	<u>Age</u>			
	<u>18-24</u>	<u>25-44</u>	<u>45-64</u>	<u>65 and over</u>
Took a common carrier trip ^{1/}	25%	21%	23%	18%
Air	7	11	11	5
Rail	13	7	9	7
Bus	8	5	9	9
Took NO common carrier trip	72	78	76	80
Not ascertained whether took a trip by any common carrier	3	1	1	2
Total	100%	100%	100%	100%
Number of respondents	(99)	(589)	(507)	(205)

^{1/} The proportion taking a common carrier trip is smaller than the sum of the three modes because some respondents took trips by more than one mode of common carrier in 1960.

Table 8

Use of Common Carriers During the Past Twelve Months by Family Income and Occupation, 1960

(per cent of all respondents)

Common Carriers Used in Past Year	Family Income					
	Under \$3000	\$3000 -4999	\$5000 -7499	\$7500 -9999	\$10,000 -14,999	\$15,000 and over
Took a common carrier trip ^{1/}	15%	18%	21%	17%	39%	55%
Air	2	5	9	8	31	43
Rail	5	8	8	8	13	24
Bus	10	7	6	5	7	6
Took NO common carrier trip	83	81	78	82	61	39
Not ascertained whether took a trip by any common carrier	2	1	1	1	*	6
Total	100%	100%	100%	100%	100%	100%
Number of respondents	(355)	(306)	(367)	(163)	(119)	(49)

Common Carriers Used	Occupation of Respondent					
	Profes- sional, Technical	Managers, Officials (not self- employed)	Self- employed Business- men	Clerical, Sales Workers	Craftsmen, Foremen, Operatives	Housewives, Students, Retired and not in labor force
Took a common carrier trip ^{1/}	46%	35%	23%	29%	12%	19%
Air	27	25	10	16	5	7
Rail	20	24	9	9	4	6
Bus	11	*	6	11	4	6
Took NO common carrier trip	53	65	76	71	86	79
Not ascertained whether took a trip by any common carrier	1	*	1	*	2	2
Total	100%	100%	100%	100%	100%	100%
Number of respondents	(101)	(51)	(68)	(160)	(225)	(591)

* Less than 0.5 per cent.

^{1/} The proportion taking a common carrier trip is smaller than the sum of the three modes because some respondents took trips by more than one mode of common carrier in 1960.

Occupation is associated significantly with the likelihood of common carrier travel. A higher proportion of white collar workers took a trip in 1960 than of adults in blue collar occupations. The distinction between self-employed and not self-employed businessmen is important in explaining the probability of common carrier travel. Only about one quarter of the self-employed businessmen took a common carrier trip as compared with 35 per cent of the businessmen who worked for someone else.

Characteristics of Most Recent Common Carrier Trip

The 22 per cent of people who took a common carrier trip of 100 miles or more in 1960 were questioned about some of the characteristics of their most recent common carrier trip. We find that 37 per cent of most recent trips were made by air, 34 per cent by rail, and 28 per cent by bus. It should be noted at this point that a cross-section of "most recent trips" is not the same as a cross-section of all trips. If a respondent takes one vacation trip a year, his trip is included with certainty; if a respondent takes 20 business trips a year, each trip has only one chance in 20 of being studied. In other words, the kinds of trips made by people who are frequent travelers have less weight among most recent trips than among all trips. This characteristic of the data does not invalidate the comparisons between the three modes presented below.

We shall now examine three characteristics of the most recent common carrier trip - distance, duration, and purpose of trip. The objective of this analysis is to see to what extent these three variables explain choice of mode of transportation.

Distance: The association between distance and mode of common carrier travel is shown in Table 9. Clearly, air trips tend to be long-distance trips, while bus trips tend to be short-distance trips. Seventy per cent of air trips were to a place 500 miles or more from home; by contrast, two-thirds of bus trips covered a distance of less than 300 miles. The distribution of railroad trips by distance was the same as the distribution of all common carrier trips. In other words, railroads are used for both long and short trips. When the relation between mode of transportation and distance is examined within income groups, the number of users of each mode within income groups is small. It is sufficient to summarize the findings by saying that the same relation between mode and distance appears in each income group. One reason why middle and lower income people go by air less often than people with incomes of \$7500 and over is that a somewhat higher proportion of their most recent trips were to a place less than 300 miles away. It should be noted however that distance traveled does not bear a strong relation to income level.

Duration: A question about time away from home was asked only of air and rail travelers, not of bus travelers. Surprisingly, the duration of the trip did not vary between the two modes of transportation, in spite of the difference in distance (Table 10). Apparently, long-distance trips tend to be taken by air in order to reduce the time away; while rail trips, although shorter than air trips, are undertaken under less time pressure.

Table 9

Distance of Most Recent Common Carrier Trips by Mode Used, 1960
(distribution of most recent trips)

<u>Distance of Most Recent Trip</u>	<u>All Families</u>			
	<u>All Carriers</u>	<u>Air</u>	<u>Rail</u>	<u>Bus</u>
100 - 199 miles	18%	6%	15%	36%
200 - 299 miles	16	4	19	28
300 - 399 miles	7	5	7	9
400 - 499 miles	10	13	11	7
500 - 699 miles	10	10	13	7
700 - 999 miles	8	12	7	4
1000 - 1499 miles	12	19	12	4
1500 miles and over	17	29	14	4
Not ascertained	2	2	2	1
Total	100%	100%	100%	100%
Number of trips ^{1/}	(361)	(137)	(123)	(101)

Families with Incomes of \$7500 and Over

<u>Distance of Most Recent Trip</u>	<u>All Carriers</u>	<u>Air</u>	<u>Rail</u>	<u>Bus</u>
100 - 199 miles	14%	6%	15%	40%
200 - 299 miles	12	4	20	25
300 - 399 miles	7	6	10	5
400 - 499 miles	15	15	17	10
500 - 699 miles	10	10	15	5
700 - 999 miles	8	12	2	5
1000 - 1499 miles	14	19	7	5
1500 miles and over	18	25	12	5
Not ascertained	2	3	2	*
Total	100%	100%	100%	100%
Number of trips	(133)	(72)	(41)	(20)

* Less than 0.5 per cent.

^{1/} The 361 trips were taken by 309 respondents. Fifty-two respondents took a trip by more than one mode of common carrier travel during the last twelve months.

Table 10

Duration of Most Recent Common Carrier Trip by Mode Used, 1960
(distribution of most recent trips)

<u>Duration</u>	<u>All</u>	<u>Air</u>	<u>Rail</u>
Back same day	3%	3%	3%
1 day up to 3	22	19	24
3 days up to 7	26	26	26
7 days up to 10	13	14	11
10 days up to 21	17	18	16
21 days up to 35	12	14	10
35 days or more	5	4	7
Not ascertained	2	2	3
	<hr/>	<hr/>	<hr/>
Total	100%	100%	100%
Number of trips	(260)	(137)	(123)

Purpose: Table 11 shows the relationship between purpose and mode of travel. A higher proportion of air trips are business trips than of rail and bus trips. Three-fourths of the people who took their most recent trip by rail, and 85 per cent of those who went by bus, were on a vacation or personal business (going to a wedding, visiting a sick relative, etc.). For those who took their most recent trip by air the corresponding figure is only 60 per cent. Again the relationship was examined within income groups and the same tendencies appeared within each income group. Needless to say, there is a greater frequency of business travel - for all three modes - in the higher income groups (\$7500 and over) than in the lower. Hence the most recent trip is less likely to have been a vacation or personal business trip in the top income brackets. The greater predominance of business travel is clearly a major reason for the more frequent choice of airplanes by upper income travelers.

Table 11

Purpose of Most Recent Common Carrier Trip by Mode Used, 1960
(distribution of most recent trips)

<u>Purpose of Trip</u>	<u>All Families</u>			
	<u>All Carriers</u>	<u>Air</u>	<u>Rail</u>	<u>Bus</u>
Business only	24%	36%	21%	10%
Vacation only	52	40	57	60
Personal only	18	15	17	24
Business and vacation	2	2	3	3
Business and personal	1	1	1	*
Vacation and personal	2	4	1	*
Not ascertained	1	2	*	3
Total	100%	100%	100%	100%
Number of trips	(361)	(137)	(123)	(101)

Families with Incomes of \$7500 and Over

<u>Purpose of Trip</u>	<u>All Carriers</u>	<u>Air</u>	<u>Rail</u>	<u>Bus</u>
Business ^{1/}	41%	46%	41%	25%
Vacation ^{2/}	41	36	44	50
Personal	15	14	15	20
Not ascertained	3	4	*	5
Total	100%	100%	100%	100%
Number of trips	(133)	(72)	(41)	(20)

* Less than 0.5 per cent.

^{1/} Includes all those who mentioned two purposes one of which was business.

^{2/} Includes those who mentioned vacation and personal.

Alternative Mode Considered

In order to learn more about the choice between various modes of transportation, a variant of the following question was asked of all respondents who had taken a common carrier trip: "If you had not gone by ...(air)..., which would you have probably gone by -- (air), rail, bus, or auto?" The question again refers to the most recent common carrier trip, but auto is mentioned here as a possible alternative. Since little is known about the decision process, the question was designed primarily to get a notion of the alternatives considered. If, for example, we can establish that the automobile is a major alternative for all three modes of common carrier travel, then our choice problem is more specific and can be investigated further on that basis. It should be kept in mind, however, that the answers to such an "iffy" question are at best suggestive. Some respondents may not have considered any alternative; others may mention the alternative which they consider most appropriate in retrospect, and this may not be the alternative which was most prominent at the decision making point.

Table 12 points to the strong competition offered to the common carriers by the family car. For 43 per cent of "most recent common carrier trips" the auto, rather than another common carrier, was the preferred alternative mode of travel. Both the auto and the railroad are frequently considered alternatives to air travel. While 37 per cent of most recent common carrier trips were made by air, in only 12 per cent of cases was air mentioned as the best alternative. The auto is the most frequently mentioned alternative mode for rail and bus trips.

Table 12

Alternative Mode Considered for Most Recent Common Carrier Trip, 1960
(distribution of most recent trips)

<u>Alternative Mode Considered</u>	<u>All Carriers</u>	<u>Air</u>	<u>Rail</u>	<u>Bus</u>
Air	12%		29%	8%
Rail	23	39%		31
Bus	11	9	23	
Auto	43	37	42	54
Ship	3	4		
Not ascertained	8	11	6	7
Total	100%	100%	100%	100%
Number of trips	(361)	(137)	(123)	(101)
Per cent of trips		37%	34%	28%

The question was: "If you had not gone by ...(air)..., which would you probably have gone by -- (air), rail, bus, or auto?"

A breakdown of the data by business and non-business trips (Table 13) indicates that the preference for one's own car is stronger for non-business than for business travel. The auto was referred to as the alternative mode for 35 per cent of common carrier business trips and 46 per cent of non-business trips. Where the most recent common carrier trip was a business trip, air was the actual mode used in 54 per cent of cases and the preferred alternative in another 17 per cent. For business air travel, rail was the most frequently mentioned alternative. For non-business trips, air was used in 32 per cent of cases and considered as the alternative in only 10 per cent of cases.

Distance is another factor which has an important bearing on the respondent's choice of alternatives. Table 14 shows that the auto is by far

Table 13

Alternative Mode Considered for Business and Non-Business Trips, 1960
(distribution of most recent trips)

<u>Alternative Mode Considered</u>	<u>Business Trips</u>			
	<u>All Carriers</u>	<u>Air</u>	<u>Rail</u>	<u>Bus</u>
Air	17%		48%	
Rail	39	57%		
Auto	35	31	42	
Bus	4	4	7	
Not ascertained	5	8	3	
Total	100%	100%	100%	
Number of trips	(96)	(52)	(31)	(1/)

<u>Alternative Mode Considered</u>	<u>Non-Business Trips</u>			
	<u>All Carriers</u>	<u>Air</u>	<u>Rail</u>	<u>Bus</u>
Air	10%		22%	8%
Rail	18	27%		27
Auto	46	40	41	57
Bus	14	12	29	
Ship	2	7		
Not ascertained	10	14	8	8
Total	100%	100%	100%	100%
Number of trips	(259)	(82)	(92)	(85)

1/ Number of cases insufficient.

Table 14

Alternative Mode Considered by Distance of Trip
(distribution of most recent trips)

<u>Alternative Mode Considered</u>	<u>All Carriers</u>	<u>Air</u>	<u>Rail</u>	<u>Bus</u>
-----Less than 500 miles-----				
Air	9%		20%	5%
Rail	18	26%		27
Auto	61	66	58	61
Bus	7	5	17	
Not ascertained	5	3	5	7
	-----	-----	-----	-----
Total	100%	100%	100%	100%
Number of trips	(183)	(38)	(64)	(81)
-----500 - 999 miles-----				
Air	17%		38%	
Rail	31	53%		
Auto	32	33	25	
Bus	18	14	33	
Not ascertained	2	*	4	
	-----	-----	-----	
Total	100%	100%	100%	
Number of trips	(65)	(30)	(24)	(11 ^{1/})
-----1000 miles and over-----				
Air	14%		40%	
Rail	29	40%		
Auto	20	21	24	
Bus	14	9	27	
Ship	6	9		
Not ascertained	17	21	9	
	-----	-----	-----	
Total	100%	100%	100%	
Number of trips	(107)	(66)	(33)	(8 ^{1/})

* Less than 0.5 per cent.

^{1/} Number of cases insufficient.

the most acceptable alternative to air, rail, and bus - if the trip is to a place less than 500 miles away. (Slightly over half of most recent trips covered a distance of less than 500 miles.) Yet many present users of common carriers seem to be reluctant to spend more than a day driving to their destination. For trips between 500 and 1000 miles rail and auto were mentioned with equal frequency; for still longer trips rail predominates. For all air trips in excess of 500 miles rail is the preferred alternative.

Income also has some influence on the alternative mode considered, although the income differences reflect primarily differences in purpose and distance of trip. Air not only is more frequently used by people with family incomes over \$7500 than by others; it also is more frequently considered as the best alternative. Furthermore, mention of the car as an alternative mode is less frequent among upper income people than among others.

* * *

In summary, it appears that choosing the airplane as a means of transportation is characteristic of upper income travelers, business travelers, and people undertaking long-distance trips. By contrast, bus travelers are most frequently lower income people, going a distance of less than 300 miles, and traveling on vacations or personal business. Railroad travelers do not differ significantly from a cross-section of all travelers, nor do the characteristics of railroad trips differ much from the characteristics of all most recent common carrier trips. That is, railroads are used by all kinds of travelers and for all kinds of trips.

The family's own automobile seems to have strong attractions as an alternative to all three modes of transportation, particularly for distances of less than 500 miles and for non-business trips. The decline over the past three years in the proportion of people traveling by railroad and bus (noted in Chapter I) appears to be due, in part at least, to competition by the automobile for vacation and shorter distance travel. The growth in air travel, on the other hand, may reflect an increasing volume of business and long-distance travel.

CHAPTER III

AIR TRAVEL IN 1959-60

This chapter has two primary objectives. The first is to examine the relationship between certain socio-economic characteristics of the adult population and air travel during 1959-60. Information about these relationships may facilitate projections of air travel into the future. A description of actual air travel experience in 1960 - attributes of the most recent air trip and attitudes toward the trip - constitutes the second purpose of the chapter. Of special interest here are the characteristics of the air trip which may account for the choice of plane as a mode of travel.

Socio-Economic Factors Associated with Air Travel^{1/}

A number of socio-economic characteristics of the adult population are related to whether or not an adult took an air trip in 1959-60.^{2/} The relationships between air travel and these factors are investigated below.

^{1/} For a multivariate analysis of the factors associated with non-business air travel in 1955 see John B. Lansing and Dwight M. Blood, "A Cross-Sectional Analysis of Non-Business Air Travel," Journal of the American Statistical Association, 1958, pp. 928-47.

^{2/} The expression 1959-60 refers to the 12 months period preceeding the survey. About two-thirds of the interviews were conducted in January-February 1960 and relate to calendar year 1959. The remaining third were obtained in October-November 1960 and relate to the previous 12 months. The interviews are combined in the first section of this chapter in order to increase sample size and obtain more reliable estimates of relationships. The data used in the second section were obtained only in Fall 1960.

Table 15

Air Travel During 1959-60 by Experience with Air Travel Prior to 1959-60
(per cent of all adults)

<u>Air Travel</u>	<u>All</u>	<u>Prior Experience with Air Travel</u>	
		<u>Had Taken One or More Air Trips</u>	<u>Had Never Taken An Air Trip</u>
Took one or more air trips in year prior to survey	9.2%	29%	2%
For business purposes (only)	3.0	10	*
For non-business purposes (only)	5.5	16	2
Took both business and non-business trips	0.7	3	*
Did not take an air trip in previous year	90.5	70	98
Not ascertained	0.3	1	*
Total	100.0%	100%	100%
Number of adults	(8329)	(2149)	(6158)

* Less than 0.5 per cent.

Prior experience with air travel: There is a striking relation between prior experience with air travel and the probability that an individual will take an air trip during the year. As shown in Table 15, of those adults who had taken at least one air trip in their lives prior to 1959, 29 per cent took an air trip during 1959-60. However, only 2 per cent of those who had never taken an air trip prior to 1959 took an air trip during 1959-60. Looking at the figures the other way around, only about 18 per cent of 1959-60 air travelers were taking their first air trip during the year under study.

Family Income: The probability that an individual takes an air trip rises with income. In 1959-60 adults in the income class \$10,000 and over, who comprised only 16 per cent of the adult population, made up 49 per cent of the air travelers and took 66 per cent of all the air trips (Table 16 and Chapter I, Table 4). The 42 per cent of adults in the income range under \$5000 contained 17 per cent of the air travelers and accounted for only 8 per cent of the air trips taken.

Business air travelers are more concentrated in the higher income groups than non-business air travelers. Table 16 shows that 75 per cent of the business air travelers were in the income range \$7500 and over, while only 54 per cent of non-business travelers had income of that size. The phenomenon of air travel for both business and non-business purposes is practically unique to adults with high incomes.

Number of trips per air traveler: Table 17 shows that business air travel is much more repetitive than non-business air travel. In 1959-60, 58 per cent of the business air travelers took only one or two air trips compared with 86 per cent of the non-business air travelers. The 58 per cent of business air travelers with one or two trips accounted for only 14 per cent of business air trips, while the 86 per cent of the non-business travelers with one or two trips accounted for 60 per cent of the non-business air trips. At the other extreme, 27 per cent of the business air travelers took five or more business trips. The frequent business air travelers took 77 per cent of all business trips. Only 4 per cent of non-business air travelers took 5 or more trips, accounting for 21 per cent of non-business air trips. The mean number of business air trips per business traveler was 5.5 or more than three times the mean number of non-business air trips per non-business traveler.

Table 16

Income Distribution of Those Who Took Air Trips in 1959-60
(percentage distribution of adults who took one or more air trips)

<u>Family Income</u>	<u>Distribution of all Air Travelers</u>	<u>Distribution of air travelers</u>		
		<u>Who Took Business Trip Only</u>	<u>Who Took Non-Business Trip Only</u>	<u>Who Took Both</u>
Under \$1000	1%	*	*	*
\$1000 - 1999	2	1%	3%	*
\$2000 - 2999	3	*	4	2%
\$3000 - 3999	5	3	7	5
\$4000 - 4999	6	3	8	3
\$5000 - 5999	8	7	9	2
\$6000 - 7499	12	11	15	3
\$7500 - 9999	14	18	14	6
\$10,000 - 14,999	25	32	20	33
\$15,000 and over	24	25	20	46
Total	100%	100%	100%	100%
Number of adults	(769)	(248)	(448)	(63)
Per cent of air travelers		34%	58%	8%

* Less than 0.5 per cent.

Table 17

Number of Business and Non-Business Air Trips in 1959-60^{1/}
(percentage distribution of air trips and travelers)

Number of Air Trips Taken	Purpose of Air Trip			
	Business ^{2/} Distribution of Travelers	Distribution of Trips	Non-Business ^{2/} Distribution of Travelers	Distribution of Trips
1	40%	7%	70%	41%
2	18	7	16	19
3	8	4	7	13
4	7	5	3	6
5 - 9	13	15	3	9
10 - 19	7	15	1	7
20 - 29	4	16	*	5
30 - 39	1	10	*	*
40 and over	2	21	*	*
Total	100%	100%	100%	100%
Total number of travelers	(300) ^{3/}		(494) ^{3/}	
Total number of trips		(1663) ^{4/}		(836)
Mean number of trips/traveler		5.5		1.7

* Less than 0.5 per cent.

- 1/ The total number of air trips shown in this table is 2499. This number differs from the 2452 air trips shown in other tables because data on number of BUSINESS trips was coded even if the respondent could NOT recall the total number of trips he took.
- 2/ If an adult took both business and non-business trips, the number of trips of each kind are included in the appropriate columns of the table.
- 3/ Excludes a few travelers for whom the NUMBER OF TRIPS was not ascertained.
- 4/ Excludes trips by two individuals who reported 98 or more trips.

Looking at the market as a whole, the approximately 40 per cent of air travelers who took business trips accounted for two-thirds of all air trips. More important, 11 per cent of all air travelers were people who took 5 or more business trips; these 11 per cent of travelers (1 per cent of the adult population) took approximately half of all air trips in 1959-60.^{3/}

Interaction between life cycle stage and family income: The importance of family income as a determinant of whether or not an individual took a non-business air trip in 1959-60 differs by stage in the life cycle. For young adults without children, Table 18 shows that income is a relatively unimportant determinant of air travel. Over the income range from \$3000-15,000, the proportion of this group who took at least one non-business air trip varies very little. The proportion who took a non-business air trip is higher for incomes of \$15,000 and over, but the proportion of young adults at this income level is very small and their importance in the market as a whole is minor. The proportion of married adults with children who took a non-business air trip is very small for incomes under \$7500. It rises rapidly with income in the range \$7500 and over. In this substantial segment of the population, about three out of ten adults in the income group \$15,000 and over took at least one non-business air trip during 1959-60. The income effect on non-business air travel for the older adults resembles that for the younger adults without children.

^{3/} See Footnote 1/, Chapter I.

Table 18

Non-Business Air Travel by Income and Life Cycle Stage, 1959-60
(per cent of all adults)

	<u>Family Income</u>						
	<u>All</u>	<u>Under \$3000</u>	<u>\$3000 -4999</u>	<u>\$5000 -7499</u>	<u>\$7500 -9999</u>	<u>\$10,000 -14,999</u>	<u>\$15,000 and Over</u>
<u>Young, single adults; young, married, no children^{1/}</u>							
Took at least one non-business air trip	10%	4%	9%	10%	8%	13%	32%
Did not	90	96	91	90	92	87	68
Total	100%	100%	100%	100%	100%	100%	100%
Number of adults	(1398)	(300)	(295)	(348)	(201)	(179)	(65)
<u>Married adults with children</u>							
Took at least one non-business air trip	5%	1%	2%	2%	5%	10%	31%
Did not	95	99	98	98	95	90	69
Total	100%	100%	100%	100%	100%	100%	100%
Number of adults	(4049)	(490)	(861)	(1357)	(622)	(480)	(202)
<u>Older, married adults with no children; older, single adults^{1/}</u>							
Took at least one non-business air trip	7%	2%	5%	7%	6%	15%	28%
Did not	93	98	95	93	94	85	72
Total	100%	100%	100%	100%	100%	100%	100%
Number of adults	(2809)	(967)	(562)	(582)	(262)	(254)	(130)

^{1/} The word "young" in this classification means under 45 years old; the word "older" refers to people of 45 and over.

Occupation: Table 19 shows a striking concentration of air travel among the professionals and the salaried managers and officials who comprise 10 per cent of the adult population in the sample. Adults in these occupation groups made up slightly more than 30 per cent of the air travelers and took more than 50 per cent of all the air trips in 1959-60. An interesting difference among occupation categories is that between businessmen (and artisans) who work for themselves and those who work for someone else. Although approximately the same proportion of adults fall into these two categories, the self-employed took 7 per cent of the air trips while the salaried group took 26 per cent. Blue collar workers and those who are not in the labor force are relatively infrequent air travelers.

Age: Table 20 illustrates the importance of age of adult as a factor in predicting air travel. More than 80 per cent of the air trips taken in 1959-60 were taken by adults between the ages of 25 and 55. This group of adults makes up about 63 per cent of the population.

Air travel history within age groups:^{4/} Another way to clarify the relationship between age and air travel is to examine the air travel history of adults according to their age at the time of the survey. This approach is taken in Table 21. One might expect that those in the oldest age group would have had the most opportunity to take an air trip, so that those aged 65 and over would be more likely to have taken an air trip at some time

^{4/} This section is reproduced verbatim from the Interim Report on the 1960 National Travel Market Survey by John B. Lansing. However, all figures, tables, and the Chart have been revised to include the data from the October-November 1960 survey, since the combined data from the two surveys provide more reliable estimates than the data from the first survey alone.

Table 19

Air Travel by Occupation of Adult in 1959-60
(percentage distribution of adults, travelers and trips)

<u>Occupation of Adult</u>	<u>Distribution of Adults</u>	<u>Distribution of Air Travelers</u>	<u>Distribution of Air Trips</u>
Professional, technical .	7%	20%	27%
Managers and officials (not self-employed)	3	12	26
Self-employed business- men and artisans	4	8	7
Clerical and sales workers	12	20	16
Craftsmen, foremen, operatives, laborers, service workers	29	11	8
Farmers	3	1	*
Housewives, widows, retired ^{1/}	37	24	13
Armed forces, students, occupa- tion N. A., unemployed	5	4	3
Total	100%	100%	100%
Number of adults	(8329)		
Number of air travelers ^{2/}		(752)	
Number of air trips			(2452)

* Less than 0.5 per cent.

^{1/} Includes a few students in the Fall 1960 data.

^{2/} Excludes two individuals who reported over 98 trips and 15 travelers for whom the number of trips was not ascertained.

Table 20

Air Travel by Age of Adult in 1959-60
(percentage distribution of adults, travelers and trips)

<u>Age of Adult</u>	<u>Distribution of Adults</u>	<u>Distribution of Air Travelers</u>	<u>Distribution of Air Trips</u>
18 - 24	12%	11%	6%
25 - 34	21	20	19
35 - 44	22	25	40
45 - 54	20	24	25
55 - 64	12	12	7
65 and over	12	7	3
Not ascertained	1	1	*
	<hr/>	<hr/>	<hr/>
Total	100%	100%	100%
Number of adults	(8329)		
Number of air travelers ^{1/}		(752)	
Number of air trips			(2452)

* Less than 0.5 per cent.

^{1/} Excludes two individuals who reported over 98 trips and 15 travelers for whom the number of trips was not ascertained.

Table 21

Air Travel History by Age in 1959-60
(per cent of all adults)

	All Adults	Age of Adult at Time of Survey					65 and Over
		18-24	25-34	35-44	45-54	55-64	
Have ever taken an air trip	28%	22%	34%	32%	30%	26%	16%
Year of first air trip:							
Before 1940	2	*	*	2	4	4	2
1940-1945	4	1	3	10	6	4	1
1946-1949	4	*	6	5	4	4	2
1950-1955	9	7	16	8	7	8	6
1956-1958	6	9	6	5	6	4	4
1959-1960	2	4	2	1	2	2	1
Year of first air trip not ascertained	1	1	1	1	1	*	*
Have never taken an air trip	72	78	66	68	70	74	84
Total	100%	100%	100%	100%	100%	100%	100%
Number of adults	(8329)	(969)	(1767)	(1837)	(1636)	(1030)	(1039)

* Less than 0.5 per cent.

The questions were: "Have you ever taken a trip to a place 100 or more miles away by air? In what year did you first take an air trip?"

in their lives than those in the younger age groups. This expectation is the reverse of the facts. Only about one adult in six of those aged 65 and over has ever taken an air trip. Of those in the age group 25 to 34, however, 34 per cent have taken an air trip.

The proportion of adults taking their first air trip during 1959-60 was highest for the age group 18 to 24. Of those in this age group, 4 per cent took their first air trip during the year, compared to about 2 per cent of those aged 25 to 64. Of those aged 65 and above only one per cent took their first air trip during 1959-60.

The proportion of adults who had taken their first air trip at different dates is also shown in Table 21. These data rely on the memory of the respondent. It seems reasonable to assume that his memory on this matter is at least approximately correct. Some allowance should be made in interpreting the data, however, for the possibility that people's recollections of when they and their wives or husbands first traveled by air are not exact.

Another way to examine the differences among the age groups is to compare the air travel history of different age groups at the same dates in their lives. In order to do this it is necessary to take account of the fact that adults aged 65 and over in 1960 were born approximately in the year 1890. Those individuals whose 70th birthday came in 1960, of course, were born in 1890, while those aged 65-69 were born a little later and those aged over 70 were born a little earlier. The year 1890 may be taken as an approximate birth date for this age class. In the same way as the first approximation, those now aged 55 to 64 were born in 1900, those aged 45 to 54 were born in 1910, and so forth. It is then possible to organize the data in Table 21 to show the proportion, for example, of the cohort of 1890 who had taken an air trip at different times in their lives. For instance, 2 per cent of this cohort had taken an air trip by 1940, that is, by the time they had reached the age of 50. An additional 1 per cent, making a total of 3 per cent, had taken their

first air trip in the next five year period or by the time they were approximately 55. It is possible, proceeding in this manner, to construct for this cohort a graph showing the cumulative proportion who had taken an air trip at each age. This type of calculation has been carried out for each of the six cohorts shown in Table 21 and the results are plotted in the accompanying graph (Chart 1).

The shape of this graph is strongly influenced by the fact that few people took air trips before 1940. It would be possible to assume that all air travel began in 1935, and, on the assumption, to start the line for the 1890 cohort, for example, at the age of 45, which is the age that they would have reached by 1935.

The graph shows the very rapid rate of acquiring experience as an air traveler characteristic of the younger cohorts. It is particularly striking to note again that the 1930 cohort, aged 30 in 1960, has already attained a higher proportion of experienced air travelers than any of the other cohorts. Note also the rapid rate of increase for the cohort of 1940. The fact that 4 per cent of this cohort took their first air trip in 1959-60 has been mentioned already. In this graph this finding is shown in the form of a very steep rise for that cohort in the last segment of the curve. A considerably larger proportion of the 1940 cohort had taken an air trip at age 20 than of the 1930 cohort when they were at that age. Of the 1920 cohort only about 2 per cent had taken an air trip at age 20. The earlier cohorts, of course, had little or no chance to travel by air before they turned 20.

It is tempting to speculate that the curves shown in the graph will continue to rise in the same rapid fashion that they have to date. If that speculation proves accurate, it is clear that the proportion of the total population who have taken an air trip will rise dramatically in the coming decade.

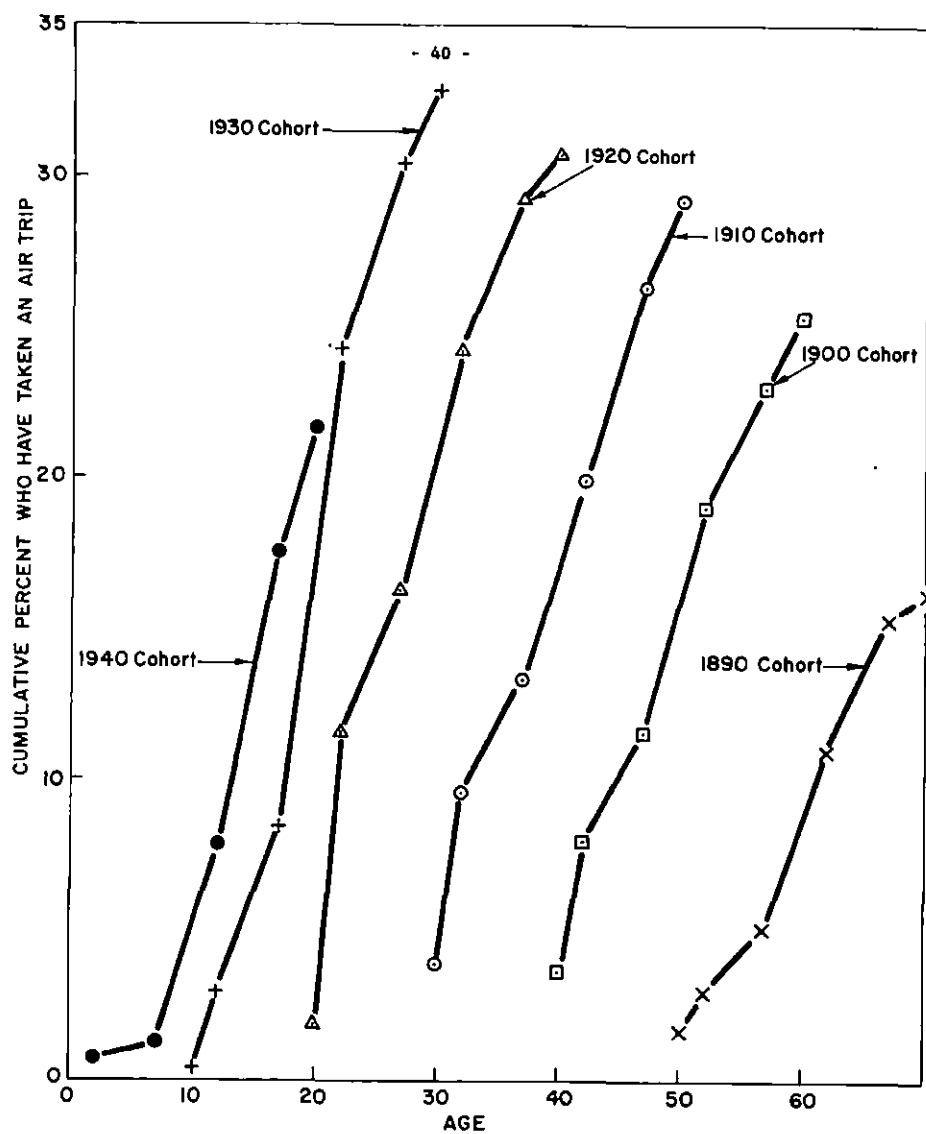


Chart 1 Cumulative Proportion of Each Cohort Who Had Taken an Air Trip at Different Ages

Characteristics of Air Trips in 1960

We shall now analyze some characteristics of air trips and attitudes toward air travel as they may throw light on the choice of air as a mode of travel. The data refer to the respondent's most recent trip during the past 12 months. Since only 9.2 per cent of adults took an air trip in the 12 months prior to the survey, and since the questions now examined were asked only in October-November 1960, the number of cases is small - 137 air travelers. The analysis is exploratory and must be followed by more extensive investigations. In particular, future studies should be extended to compare characteristics of air trips and attitudes of air travelers with cases where an alternative mode of transportation was chosen. The remainder of this chapter relates to all most recent air trips. In Chapter IV some comparisons will be made between recent long-distance air and auto trips.

Origin of trip and journey to airport: Table 22 shows the origin of air trips, both for the outbound trip and the return journey. Most outbound trips originate at the respondent's home. The small number which originate elsewhere (usually the office) are primarily business trips. The return trip originates most frequently at a hotel, but in a substantial number of cases at a friend's or relative's home, a business office, a school or college, etc. When examining these data, it should be kept in mind that "most recent trips" are not a cross-section of all trips; repetitive business trips are clearly under-represented.

The hypothesis that the decision to travel by air is related to distance to the airport proved fruitful. Table 23 shows the relationship between distance of trip and the respondent's estimate of the length of time it took to travel to and from the airport - both for outbound and return trips.

Table 22

Purpose of Most Recent Air Trip by Origin of Trip, 1960
(distribution of respondents who took an air trip during the last 12 months)

<u>Purpose of Air Trip</u>	<u>All</u>	<u>Origin of Outgoing Trip</u>	
		<u>Home</u>	<u>Office and Other</u>
Business ^{1/}	38%	35%	55%
Vacation ^{2/}	45	47	36
Personal	15	17	9
Not ascertained	2	1	*
	—	—	—
Total	100%	100%	100%
Number of respondents	(137)	(112)	(22)

<u>Purpose of Air Trip</u>	<u>All</u>	<u>Origin of Return Trip</u>	
		<u>Hotel</u>	<u>Elsewhere</u>
Business ^{1/}	40%	48%	32%
Vacation ^{2/}	43	43	43
Personal	14	8	25
Not ascertained	3	1	*
	—	—	—
Total	100%	100%	100%
Number of respondents	(115) ^{3/}	(65)	(44)

* Less than 0.5 per cent.

^{1/} Includes respondents who mentioned two purposes one of which was business.

^{2/} Includes respondents who mentioned vacation and personal.

^{3/} Excludes 22 respondents whose most recent air trip was a one-way trip.

Table 23

Time Required for Airport Trips by Distance of Trip, 1960

(distribution of respondents who took
an air trip during the last 12 months)

<u>Outgoing Trip Times</u> ^{1/}	<u>All</u>	<u>Distance of Trip</u>	
		<u>Under 1000 miles</u>	<u>1000 miles and over</u>
Both airport trips less than ½ hour	12%	18%	6%
At least one airport trip took ½ - 1 hour	32	35	30
At least one airport trip took 1 - 2 hours	34	40	30
At least one airport trip took 2 hours or more	19	6	32
Not ascertained	3	1	2
Total	100%	100%	100%
Number of respondents	(137)	(68)	(66)

<u>Return Trip Times</u>	<u>All</u>	<u>Distance of Trip</u>	
		<u>Under 1000 miles</u>	<u>1000 miles and over</u>
Both airport trips less than ½ hour	8%	14%	2%
At least one airport trip took ½ - 1 hour	35	36	37
At least one airport trip took 1 - 2 hours	36	36	35
At least one airport trip took 2 hours or more	15	9	22
Not ascertained	6	5	4
Total	100%	100%	100%
Number of respondents	(115) ^{2/}	(58)	(54)

^{1/} Classified by longer trip.

^{2/} Excludes 22 respondents whose most recent air trip was a one-way trip.

We find that a higher proportion of trips exceeding 1000 miles than of shorter trips were associated with time-consuming trips to and from the airport. In other words, if a long trip to or from the airport is required, the decision to travel by plane hinges on the distance of the trip. For very long distance trips the time-consuming trip to or from the airport is tolerated; for shorter distances it may lead to a decision to go by some other mode of transportation.

The origin of the trip - home, office, hotel - seems to bear no relation to the amount of time needed for the trip to and from the airport. The airport trip also was related to the traveler's place of residence. It seems to be shortest for people living in cities with over 50,000 population other than the twelve largest metropolitan areas. The twelve largest cities and suburban areas follow. As one might expect, the trip to and from the airport is longest for people residing in the adjacent and outlying areas.

The data suggest that the rate of growth of air travel in the future for shorter and medium distance journeys is dependent on the construction of airports and roads which minimize the time required to get to and from the airport.

Nature of business trip: Because of the great importance of business trips for the air travel market, two additional questions were asked of people whose most recent trip was a business trip: "Were you attending a convention, or meeting with a group of people, or just talking to one person, or did you have several appointments?" and "How long did you spend at your meeting or appointments altogether - was it less than an hour, about an hour, two or three hours, half a day, a day, or more than a day?" The objective of these questions was to see to what extent business trips are undertaken for brief conferences or to see one or two persons. The notion was that new communication

systems, such as telephones with screens where the other party can be seen, could eventually replace the airplane trip on such occasions.

Table 24 shows that most business travelers meet with a group of people or have several appointments. Attending a convention is also of some importance. Business trips very seldom are undertaken just to see one person. This holds for air as well as rail trips. Table 25 shows that in most cases business travelers require a day or more for the business that led to the trip. Less than 10 per cent of travelers said that their meetings lasted less than 3½ hours. Again this holds for air and rail trips. The data suggest then that very few business trips are of the kind that are likely to be replaced by new telephone communication systems. The figures were also examined by distance of trip. Although the number of cases is small, the same findings seem to emerge for long and short trips.

Dislikes about most recent air trip: Obstacles to air travel may also be examined by asking people directly what they disliked about their most recent air trip. The questions here were: "While you were traveling, what did you like least about the trip? Was there anything (else) that was unpleasant in any way?" Forty per cent of recent air travelers could not mention any dislikes, while 55 per cent offered some criticism. It is indicative of the favorable attitudes toward flying on the part of air travelers that only 14 per cent of them voiced more than one complaint in spite of the "anything else" probe.

Table 26 shows that the trip to and from the airport was mentioned as something disliked by only 9 per cent of travelers. Delays at the airport itself (in take off and arrival, changing planes, waiting for baggage) were criticized twice as often - by 18 per cent. These latter occurrences are

Table 24

Kinds of Appointments on Most Recent Business Trip, 1960

(distribution of respondents whose most recent air and rail trips in the last 12 months was a business trip)

<u>Appointments</u>	<u>All Business Travelers</u>	<u>Air</u>	<u>Rail</u>
Talked to one person	2%	4%	*
Attended a convention	12	10	15%
Met with a group of people	30	33	27
Several appointments	26	21	35
Combination	8	11	*
Not ascertained	22	21	23
	<hr/>	<hr/>	<hr/>
Total	100%	100%	100%
Number of respondents	(77)	(52)	(26)

* Less than 0.5 per cent.

Table 25

Time Spent at Appointments on Most Recent Business Trip, 1960

<u>Time Spent at Appointments</u>	<u>All Business Travelers</u>	<u>Air</u>	<u>Rail</u>
Under 3½ hours	8%	6%	11%
3½ hours to 6 hours	7	8	4
6 hours to 12 hours	18	13	27
12 hours and over	58	60	54
Not ascertained	9	13	4
	<hr/>	<hr/>	<hr/>
Total	100%	100%	100%
Number of respondents	(77)	(52)	(26)

Table 26

Dislikes About Most Recent Air Trip, 1960

(per cent of respondents who took an
air trip during the last 12 months)

<u>Dislikes</u>	<u>All Recent Air Travelers</u>
Characteristics of Trip to and from airport	9%
Length of time trip took	3
Other unpleasant characteristics	6
Characteristics of experiences at the airport	18
Delay in change of planes	4
Waiting for luggage after arrival	1
Delay in take-off and/or arrival	9
Other unpleasant experiences	4
Characteristics of the flight	42
Landing and taking off	4
Bad weather	7
Poor service on flight	4
Plane trip took too long	4
Plane was too noisy	4
Other unpleasant characteristics of flight	19
NO dislikes	40
Not ascertained	5
Total	100
Number of respondents	(137)

** The "total" is more than 100 per cent because a single respondent may have disliked more than one thing about his most recent air trip.

The question was: "While you were traveling what did you like least about the trip?"

usually unexpected. Time consumed going to and from the airport on the other hand, is known in advance, and may lead to the decision not to travel by air at all (in this case the question was of course not asked). The most frequent complaints concerned the flight itself - weather, service, landing and take off, noise, the meal served (or not served), temperature, a snoring neighbor, boredom, etc.

The kinds and frequency of dislikes were examined by length of trip and age and sex of travelers. The proportion of travelers expressing no dislikes at all seems to be somewhat higher among young people than among older people and also somewhat higher among long-distance travelers than among those taking shorter trips. No clear differences in types of complaints are perceptible between these groups.

Cost considerations: Although one might suspect that cost is an obstacle to flying, the question about dislikes was not worded (or intended) to bring forth the argument that flying is expensive. Rather, after the question on alternative modes considered, people were asked directly: "Was it cheaper or more expensive for you to travel by air?" About 30 per cent of people reported that flying was less expensive than the alternative mode considered (usually auto or rail) and 40 per cent that it was more expensive; the rest for the most part saw no clear difference (Table 27). People who had considered the auto as an alternative were somewhat more likely to see the air trip as more expensive than those who were making a comparison with the railroad. In response to the further question - "How important to you was the difference in cost?" - only 9 per cent answered "important," and these were almost exclusively people for whom flying was less expensive. Those who did feel that flying was more expensive reported in almost every instance that the added

Table 27

Attitude Toward Cost of Most Recent Air Trip, 1960

(distribution of respondents who took
an air trip during the last 12 months)

<u>Perceived Cost (compared with alternative considered)</u>	<u>All^{1/}</u>	<u>Alternative Mode Considered</u>	
		<u>Rail</u>	<u>Auto</u>
Air trip cheaper	30%	32%	27%
Air trip costs about the same	14	20	14
Air trip more expensive	41	40	55
Not ascertained ^{2/}	15	8	4
Total	100%	100%	100%

Importance of Cost

Important	9%	10%	4%
Unimportant	39	42	51
Very unimportant	26	28	24
Not ascertained	26	20	21
Total	100%	100%	100%
Number of respondents	(137)	(53)	(49)

1/ Includes a few respondents who mentioned other alternative modes of transport such as bus or ship.

2/ Includes cases where the question was not answered because the business paid for the trip; many other business travelers did make a cost comparison.

The questions were: "If you had not traveled by air, which would you have probably gone by - rail, bus, or auto?" "Was it cheaper or more expensive for you to travel by air?" "How important to you was the difference in cost?"

cost was of little or no consequence to them, regardless of whether they were business or vacation travelers. As one might expect, the response that cost differences are important increased somewhat with length of trip (i.e. with the amount of money involved). In brief, there is no evidence that most air travelers feel that flying is expensive or that cost is salient as a disadvantage (outbalanced by other advantages). At the same time, it is likely that cost considerations would have loomed larger if the same questions had been asked of people who decided not to go by air.

Time saved: Table 28 suggests that to most air travelers time, in contrast to cost, is a major consideration. About three-fourths of air travelers reported that they saved more than 6 hours by flying and nearly half reported that they saved a day or more. Those who made a comparison with the automobile were more likely to feel that they saved a small amount of time, since the car was considered as an alternative mode primarily for shorter trips. About 60 per cent of air travelers said that the time saved was important or very important to them. For the majority of those who replied "unimportant" the time saving was small. The time-saving estimates, just like the cost comparisons, have of course a large subjective element. The tentative conclusion that may be drawn from a comparison of Tables 27 and 28 is that air travelers are more conscious of time differences than of cost differences.

* * *

Table 28

Attitude Toward Time Saved on Most Recent Air Trip, 1960

(distribution of respondents who took
an air trip during the last 12 months)

<u>Perceived Amount of Time Saved</u> <u>(compared with alternative considered)</u>	<u>All^{1/}</u>	<u>Alternative</u> <u>Mode Considered</u>	
		<u>Rail</u>	<u>Auto</u>
Less than 3 hours	5%	4%	10%
3 hours up to 6	9	4	21
6 hours up to 12	16	15	21
12 hours up to 24	12	17	10
1 day up to 3 days	22	24	18
3 days or more	22	17	18
Not ascertained	14	19	2
<hr/>			
Total	100%	100%	100%
<hr/>			
<u>Importance of Saving Time</u>			
Very important	35%	34%	31%
Important	23	36	14
Unimportant	36	30	51
Not ascertained	6	*	4
<hr/>			
Total	100%	100%	100%
<hr/>			
Number of respondents	(137)	(53)	(49)

* Less than 0.5 per cent.

^{1/} Includes a few respondents who mentioned other alternative modes of transport such as bus or ship.

The questions were: "If you had not traveled by air, which would you have probably gone by - rail, bus, or auto?" "How much time do you think you saved by traveling by air?" "How important to you was it to save time?"

This chapter may be summarized briefly by enumerating some of the factors which were found to be associated with airplane travel: Most important among these factors are income and occupation. Those with income over \$10,000, salaried businessmen, and professional people are responsible for a large proportion of all air trips. Those in the middle age brackets are somewhat more frequent fliers than the youngest and oldest age groups, in spite of the fact that in the lower and middle income groups having children seems to be an obstacle to air travel. The probability that a person of a given age will make an air trip has been moving upward over time as the frequency of previous experience with air travel has risen from one cohort to the next. Air travel is much more frequent among those who have previously flown than among previous non-fliers. A long trip to or from the airport seems to be a deterrent to flying for shorter trips.

Recent air travelers are more likely to complain about delays at the airport than about time consumed in getting to and from the airport but the most frequent complaints are related to characteristics of the trip itself. Finally, there were some indications that people are more conscious of time than of cost differences when they compare air travel with alternative modes of transportation. The data on attitudes toward air travel in this section are however limited in that comparable data for people who chose an alternative mode of transportation are not available.

CHAPTER IV

THE CHOICE BETWEEN AIR AND AUTO TRAVEL FOR LONG-DISTANCE TRIPS

The future trend of air travel is greatly dependent on popular preferences between flying and going by family car. That automobile travel is very popular in present-day America hardly requires documentation. The automobile is not only the most common means of travel, but we have seen that it is also the most frequently considered alternative to the common carriers. For shorter trips, say up to 500 miles, the automobile offers obvious conveniences. More interesting is an analysis of the factors affecting the choice between the automobile and other modes of travel, particularly air, for trips of 500 miles or more (one way). This is the problem with which the present Chapter is concerned.

The Chapter has three sections. The first section will examine how many people and what kinds of people have ever taken an auto trip to a place 500 miles or more away. We shall also look at the attitudes of these people toward long-distance auto trips. The second section will be concerned with the factors which affected the choice between air, rail, and auto for long-distance trips in the previous twelve months. Such factors as distance, duration, purpose of trip, number of travelers and cost will be considered, as well as people's perceptions of the advantages and disadvantages of auto as compared with plane travel. The third section is clearly speculative. It visualizes the possibility of innovations in the automobile which would greatly enhance the speed and convenience of

auto travel. People's reactions to such an innovation are studied with the aim of assessing its present appeal and the firmness of current preferences.^{1/}

Long-Distance Auto Travel

A considerable majority of American adults have taken an automobile trip to a place 500 miles or more away at sometime in their life. In reply to the question - "Have you ever taken an auto trip to a place 500 miles or more away?" - six out of ten people gave an affirmative reply. About eight out of ten automobile owners have taken a long-distance auto trip (and of course some non-owners have made such trips with friends or relatives).

Table 29 shows that the probability that an individual has ever taken a long-distance auto trip varies between economic and demographic groups in the population; but the table also illustrates the high level of experience with long-distance automobile travel throughout the adult population. The proportion of adults who have ever taken a long-distance auto trip rises sharply with income and education; it is 44 per cent among people with incomes under \$3000 and reaches 86 per cent for those with incomes over \$15,000. Similarly, it varies from 55 per cent among laborers and service workers to 86 per cent among professional and technical people. Differences between age groups and between family groups classified by stage in the life cycle are smaller. In most such groups between 60 and 70 per cent of adults have traveled to a place 500 miles or more away by car; the one significant exception are people over 65 where the proportion is below 50 per cent. The proportion of long-distance auto travelers is only

^{1/} The particular innovation considered was of interest to one of the sponsors of the survey.

Table 29

Proportion of Adults Who Have Ever Taken a Long-Distance Auto Trip by Demographic Characteristics, 1960

(per cent of respondents in each group)

	<u>Have Taken a Long-Distance Auto Trip</u>
<u>ALL</u>	<u>62%</u>
<u>Family Income</u>	
Under \$3000	44
\$3000 - 4999	56
\$5000 - 7499	70
\$7500 - 9999	74
\$10,000 - 14,999	81
\$15,000 and over	86
<u>Education of Head</u>	
Grade school	41
Some high school	65
Completed high school	67
Some college	82
Has college degree	89
<u>Occupation of Respondent</u>	
Professional, technical	86
Managers, officials (not self-employed)	78
Self-employed businessmen	78
Clerical, sales workers	73
Craftsmen, foremen, operatives	58
Laborers, service workers	55
Not in labor force (housewives, retired, etc.)	56
<u>Age of Respondent</u>	
18 - 24	67
25 - 44	68
45 - 64	61
65 and over	47

(continued on next page)

Table 29 (cont.)

	<u>Have Taken a Long-Distance Auto Trip</u>
<u>Life Cycle Stage</u>	
Young ^{1/} , single	72%
Young, married, no children	70
Young, married, children	67
Older ^{1/} , married, children	57
Older, married, no children	61
Older, single	52
<u>Sex</u>	
Male	65
Female	60
<u>Place of Residence</u>	
Central city	
12 largest metropolitan areas	47
other cities of 50,000 or over	66
Suburban areas	69
Adjacent areas	63
Outlying areas	61
<u>Region</u>	
Northeast	48
North Central	68
West	73
South	63

^{1/} "Young" means under 45 years of age; and "older" means 45 and over.

slightly higher among men than among women. Breakdowns by place of residence and region indicate that in the most congested areas - the large metropolitan centers and the Northeastern region - fewer people have made a long-distance auto trip than in other areas of the country. These are also the areas that have a below-average level of automobile ownership.

In all, Table 29 illustrates that it is incorrect to assume that long-distance auto travelers are middle income people, while air travelers are upper income people. The same description characterizes long-distance auto and air travelers. Both are found most frequently in the younger or middle age groups, among the upper income and education groups, businessmen and professional people. These groups are the frequent travelers and they are most often faced with the choice between air and auto travel. In all income groups the proportion of people who have ever made a long-distance auto trip exceeds the proportion who have ever flown. However, experience with air travel declines more sharply in the lower income groups than experience with long-distance auto travel.

Attitudinal data suggest that for most Americans long auto trips are an enjoyable experience, rather than something tolerated for the sake of economy in travel. In reply to the question - "In general, how do you like long automobile trips? Why?" - twice as many people expressed favorable attitudes as expressed unfavorable attitudes. The question was asked of all people who had ever taken a long-distance auto trip, and was purposely unstructured, allowing the respondent maximum freedom in describing advantages and disadvantages of long-distance auto travel. The lower part of Table 30 shows the kinds of things people like and dislike about auto travel. The most frequent argument in favor of auto travel is that one can see things along the way or that one can stop to go sightseeing.

Table 30

Attitudes Toward Long-Distance Auto Trips, 1960

(per cent of respondents who have ever taken an auto trip to a place 500 miles or more away)

<u>Attitude Toward Long Auto Trips</u>	<u>All Long-Distance Auto Travelers</u>
Likes long auto trips	47%
Qualified liking for long auto trips	15
Uncertain; depends	5
Qualified disliking for long auto trips	4
Dislikes long auto trips	23
Not ascertained	6
	<hr/>
Total	100%
Number of respondents	(878)

Reasons For Liking or Disliking Long Auto Trips

Advantages of auto travel*

Being able to see things, sightseeing	27
Flexible schedule	12
Relaxing	5
Like to travel, drive	6
Other explanations (cheap, convenient)	6

Disadvantages of auto travel*

Dislike driving for a long time	16
Driving is dangerous and nerve-racking	4
Wastes time	1
Other explanations	7

Number of respondents (878)

* Some respondents gave no explanation except to say that they do, or do not, enjoy auto travel.

The question was: "In general, how do you like long automobile trips. Why?"

Another commonly mentioned advantage is that driving allows for a flexible schedule: one can stop and start when one feels like it or when the children get restless. Some people argue that automobile travel is restful because one can plan the day as one pleases. On the other hand, when speaking of disadvantages, people most often refer to the tediousness of driving or sitting in the car for long periods. These people say that driving for a long time is tiresome, boring or uncomfortable.

People who reported they sometimes or usually do the driving on long auto trips were asked the additional question - "How do you feel about driving a car several hundred miles in one day, do you enjoy it or dislike it?" Although one might suspect that such a question would bring forth many expressions of dislike, the data again show a predominance of favorable responses. About 40 per cent of drivers answered without any qualifications that they like driving several hundred miles in one day; another 17 per cent expressed qualified liking. As might be expected, there is a very high correlation between liking to drive and enjoying a long-distance auto trip.

Comparisons of Long Auto and Plane Trips

So far we have looked at long-distance auto travel in a rather general way, without focusing on a specific trip. This section will investigate the factors influencing the choice between auto and plane travel with reference to a specific recent trip. While 62 per cent of American adults have ever taken an auto trip to a place at least 500 miles away, only 22 per cent of adults had done so in the twelve months preceding the survey. These 22 per cent of respondents were questioned about their most recent long-distance auto trip. Since these questions were asked only in the Fall 1960 survey, we are again dealing with a relatively small number of cases.

Although the survey did not determine the proportion of adults who took an air trip of 500 miles or more in the previous twelve months, it is clear that the proportion of long-distance air travelers is much smaller than 22 per cent. It was shown earlier that only 9.2 per cent of adults took any kind of an air trip in 1959-60 and only 70 per cent of the most recent air trips were to a place 500 miles or more away (Tables 2 and 9). However, since multiple air trips are common, some people whose most recent air trip was short may also have made a longer air trip. We are safe then in estimating that 7 to 8 per cent of adults took a long-distance air trip in the year prior to the survey compared with 22 per cent who took a long-distance auto trip. It is likely that long-distance air travel is more repetitive than long-distance auto travel. If this assumption is correct, the predominance of long-distance auto over long-distance air travel is smaller in terms of trips than in terms of travelers.^{2/}

The group of air travelers whose most recent air trip was to a place 500 miles or more away provides us not only with a small number of cases (i.e., 96) for study; it also excludes, as was just pointed out, some cases where the most recent trip was short but other longer trips were made in the past twelve months. Nevertheless some comparisons are made between long air and auto trips, since there is no reason to assume that the omitted long-distance air trips differ systematically from those available for study. Needless to say, the figures in the following tables are indicative only of orders of magnitude.

^{2/} The Census Bureau estimated in 1957 that 69 per cent of trips to a place at least 500 miles away were made by auto, the remaining 31 per cent by common carrier. See U. S. Department of Commerce, Bureau of the Census, Travel Survey - 1957, p. 12.

Among the 22 per cent of adults who took a long-distance auto trip in the previous twelve months, 45 per cent were experienced air travelers; among the 78 per cent of adults who had not taken a long-distance auto trip, only about 20 per cent were experienced air travelers. That is, we find again that long-distance auto and air travelers are to a large extent the same people. What then are the characteristics of the trip which determine their choice of mode on a particular occasion?

Table 31 shows that the plane has its greatest appeal for very long trips - those of 1000 miles or more. Over two-thirds of air trips (in excess of 500 miles) as compared with 40 per cent of auto trips (in excess of 500 miles) were to a place 1000 miles or more away. Time away from home was similar for the two modes of transportation. Apparently the longer average distance of air trips was just about balanced by the greater speed of transportation.

Table 32 reveals a second important difference between long-distance air and auto trips - the number of family members going on the trip. A fourth of both kinds of trips were husband-wife trips. About 40 per cent of air trips were made by the respondent alone and another 10 per cent in the company of a business associate only. By contrast, a negligible proportion of auto trips were made by the respondent alone or with a business associate. On the other hand, 45 per cent of long-distance auto trips included children, but less than 15 per cent of long-distance air trips. These differences suggest that cost may be an important consideration in the decision to take a long-distance trip by car rather than by air. The availability of a second driver may be another factor involved here.

Table 31

Distance and Duration of Most Recent Long-Distance Trip by Mode, 1960

(distribution of respondents who took a trip by each mode
during the last 12 months to a place 500 miles or more away)

<u>Distance of Trip</u>	<u>Air</u>	<u>Auto</u>
500 - 699 miles	14%	34%
700 - 999 miles	17	23
1000 - 1499 miles	27	23
1500 miles and over	42	18
Not ascertained	*	2
	<hr/>	<hr/>
Total	100%	100%
Number of respondents	(96)	(317)

Time Away

Up to 3 days	9%	4%
3 days up to 7	25	25
7 days up to 10	18	21
10 days up to 21	23	29
21 days up to 35	18	13
35 days or more	6	5
Not ascertained	1	3
	<hr/>	<hr/>
Total	100%	100%
Number of respondents	(96)	(317)

* Less than 0.5 per cent.

Table 32

Company on Most Recent Long-Distance Trip, 1960

(distribution of respondents who took a trip by each mode during the last 12 months to a place 500 miles or more away)

<u>Company on Trip</u>	<u>Air</u>	<u>Auto</u>
Had company on trip	55%	95%
Spouse only	23	26
Spouse and children only	5	34
Relative(s) only	4	9
Friend(s) only	5	6
Business associate(s) only	10	1
Other combinations including children	8	11
Other combinations excluding children	*	8
Went alone	42	4
Not ascertained	3	1
	<hr/>	<hr/>
Total	100%	100%
Number of respondents	(96)	(317)

* Less than 0.5 per cent.

Table 33 points to a third difference between long-distance air and auto trips: A higher proportion of air than of auto trips are business trips; a very large proportion of long-distance auto trips are vacation trips. We found in Chapter III (Tables 24 and 25) that few common carrier business trips are undertaken to see just one person or for meetings lasting less than 6 hours. This finding applies equally to long-distance air and auto trips undertaken for business purposes (Table 34).

Having compared attributes of air and auto trips, we may now ask how people perceive the advantages and disadvantages of auto as compared with air travel. Before making this comparison, people who had taken a

Table 33

Purpose of Most Recent Long-Distance Trip, 1960

(distribution of respondents who took a trip by each mode during the last 12 months to a place 500 miles or more away)

<u>Purpose of Trip</u>	<u>Air</u>	<u>Auto</u>
Business ^{1/}	36%	8%
Vacation ^{2/}	46	78
Personal	17	13
Not ascertained	1	1
	<hr/>	<hr/>
Total	100%	100%
Number of respondents	(96)	(317)

1/ Includes respondents who mentioned two purposes one of which was business.

2/ Includes respondents who mentioned vacation and personal.

long-distance auto trip in the previous twelve months were asked - "Did you consider taking this trip by air?" Only 8 per cent of auto travelers answered in the affirmative. In other words, almost all recent long-distance auto travelers had a decisive preference for traveling by car.

What advantages of auto travel were most responsible for this preference? In reply to the question - "What would you say are the advantages of going by car rather than by plane for a trip like this one?" - everybody readily mentioned some advantage and half of all people mentioned two or more. In reply to the further question - "While you were traveling, what did you like least about the auto trip?" - one-third of people could not think of anything they did not like, and only a third of the remaining

Table 34

Kinds of Appointments and Time Spent at
Appointments on Most Recent Business Trips, 1960

(distribution of respondents whose most recent long-distance
air and auto trips in the last 12 months was a business trip)

<u>Appointments</u>	<u>All</u>	<u>Air</u>	<u>Auto</u>
Talked to one person	8%	3%	17%
Attended a convention	12	5	21
Met with a group of people	18	25	8
Several appointments	25	25	25
Combination	15	17	12
Not ascertained	22	25	17
	<hr/>	<hr/>	<hr/>
Total	100%	100%	100%
Number of respondents	(60)	(36)	(24)

Time Spent at Appointments

Under 3½ hours	3%	3%	4%
3½ to 6 hours	7	8	4
6 to 12 hours	18	12	29
12 hours and over	55	58	50
Not ascertained	17	19	13
	<hr/>	<hr/>	<hr/>
Total	100%	100%	100%
Number of respondents	(60)	(36)	(24)

people mentioned more than one disadvantage. Still, the data indicate that 70 per cent of long-distance auto travelers saw both good points and bad points in going by car.

Table 35 shows that four advantages of auto travel were frequently referred to. They are, in order of importance: (1) Freedom (in arranging one's time and/or route), (2) economy, (3) being able to see the scenery and special sights, and (4) having the car at one's destination. The advantages cited were examined by distance and purpose of trip, family income and life cycle stage of the respondent, but only a few differences emerged. The first advantage - freedom - was mentioned much more often in connection with vacation than with business or personal trips. The same was true of being able to see things on the way. Economy reasons were given with particular frequency by young couples with children, people traveling on personal business, and those making a trip of more than 1000 miles. Interestingly, economy was mentioned with about equal frequency in all major income groups.

When speaking of advantages of auto travel, two special probes were added regarding cost on the supposition that some people might be reluctant to refer spontaneously to economy: "Was it cheaper or more expensive for you to travel by auto than it would have been by plane?" (If any difference in cost) How important to you was the difference in cost?" Eight out of every ten recent long-distance auto travelers replied that traveling by car was cheaper and only 7 per cent said that it was more expensive; the rest were uncertain or thought there was no difference for their trip. More than half of those who felt that going by car was cheaper said that the cost difference was important to them. The cost difference was unimportant primarily to people on business trips and to those traveling without children. We may recall here that only three out of ten recent plane

Table 35

Advantages of Going by Car Rather Than Plane For
Most Recent Long-Distance Auto Trip by Purpose of Trip, 1960

(distribution of respondents who took an auto trip to a place 500 miles or more away during the last 12 months)

<u>Advantages of Going by Car</u>	<u>All</u>	<u>Purpose of Trip</u>		
		<u>Business^{1/}</u>	<u>Vacation^{2/}</u>	<u>Personal</u>
Freedom	54%	45%	60%	28%
of time	27	12	31	14
of route	27	33	29	14
Economy	32	33	30	40
Can see more and better from a car	22	5	25	18
Have car at destination	11	8	12	9
Comfort while traveling	8	17	7	7
Can take belongings	8	*	7	14
Plane not available for particular trip	4	18	3	7
Not ascertained	4	*	3	9
Total	**	**	**	**
Number of respondents	(317)	(24)	(248)	(43)

* Less than 0.5 per cent.

** The "total" is more than 100% because a single respondent may have mentioned more than one advantage of going by car.

^{1/} Includes respondents who mentioned two purposes one of which was business.

^{2/} Includes respondents who mentioned vacation and personal.

The question was: "What would you say are the advantages of going by car rather than by plane for a trip like this one?"

travelers thought plane travel was cheaper than the alternative mode considered, and only 9 per cent of plane travelers said that cost differences were important to them (Table 27). In other words, economy considerations are much more important to auto than to plane travelers.

When asked about things they disliked about their most recent long-distance auto trip, a third of people spoke of bad driving conditions (Table 36). Mentioned frequently were such things as bad weather, icy or snowy pavements, heavy traffic, and poor roads. Another 20 per cent of people said that long car trips are tiring, and 8 per cent complained about inadequate overnight accommodations and restaurants along the road. Only 5 per cent said that auto travel was too time-consuming.

Attitudes Toward the "Self-Driving" Automobile

One of the chief problems in assessing future trends in the travel market is the possibility of technological innovations which may greatly enhance the advantages of one or another mode of transportation. In late 1957 and mid-1958, prior to the introduction of jet aircraft in commercial passenger service, the Survey Research Center studied people's reactions to the idea of jet travel. A majority of those who had ever flown and of those who were potential air travelers (men, upper income people, college graduates) said they would like or would accept jet travel.^{3/} This finding foreshadowed the favorable public reaction to jets when they were later introduced.

The 1960 survey experimented with a few questions regarding a potential innovation in the automobile, described to the respondent as a

^{3/} John B. Lansing. The Travel Market, 1958, Survey Research Center, University of Michigan, 1958, pp. 12-17.

Table 36

Dislikes About Long-Distance Auto Travel by Distance of the Trip, 1960

(distribution of respondents who took an auto trip to a place 500 miles or more away during the last 12 months)

<u>Dislikes About Auto Trip</u>	<u>All</u>	<u>Distance of Trip</u>		
		<u>500-699 Miles</u>	<u>700-999 Miles</u>	<u>1000 Miles and Over</u>
Driving conditions	31%	32%	30%	30%
Weather conditions	13	13	15	12
Road conditions	5	4	6	5
Traffic conditions	6	8	1	6
Other	7	7	8	7
Inconveniences while traveling	42	41	37	47
Long trip tiring	20	14	21	25
Children tiresome	5	8	4	2
Trip took too much time	5	6	2	5
Other inconveniences	12	13	10	15
Inadequate facilities (accommodations, restaurants, etc.)	8	4	7	10
Scenery or route dull or monotonous	2	3	2	2
NO mention of dislikes	30	27	29	32
Not ascertained	2	2	6	2
Total	**	**	**	**
Number of respondents	(317)	(110)	(72)	(130)

** The "total" is more than 100 per cent because a single respondent may have mentioned more than one dislike about the auto trip.

The question was: "While you were traveling, what did you like least about the auto trip?"

car capable of driving itself. Interviewers were provided with the following description to be used when the respondent requested additional information:

"The Auto-Control system consists of a system of cables laid in the pavement of the turnpike, and a device in the car. The guidance cable in the center of the line guides or steers the car, and provides a means for measuring the speed of the car. Another cable controls the speed of the automatic vehicles for safe spacing. The system also provides for stopping the car if there is an obstacle in the lane."

Reactions to the self-driving car may be inferred indirectly by reviewing how this innovation would alter the advantages and disadvantages of auto travel. The picture is mixed. The self-driving car could alleviate some of the disadvantages attributed to long-distance auto travel. It could make such travel less tiring, less time-consuming, and could make poor weather or driving conditions less annoying. However, the faster self-driving car might also diminish some advantages which people now see in auto travel. The freedom and flexibility of auto travel might be limited to some extent, and the enjoyment of the scenery and sights along the way might be reduced. There is also the possibility that travel by such a device might be more expensive.

Direct reactions to the self-driving car were obtained by first asking those people who had ever taken an auto trip to a place 500 miles or more away - "If you were going to a place 500 miles away and could go by car or plane just as you pleased, which would you prefer?" It should be noted that this question was asked before any mention of the self-driving car. About half of the people questioned said they would go by car, a third expressed a preference for going by plane, and some people gave "depends" answers. These results again underline the great popularity

of the automobile for long-distance travel. The next question introduced the self-driving car: "Suppose that they invented something so that your car would drive itself - on a trip to a place 500 miles away, would you rather ride in your car while it drove itself or go by airplane?"

Table 37 shows no enthusiasm for the self-driving car. On the contrary, the proportion of people who would go by car decreases slightly at the thought of the self-driving car, the proportion choosing the plane rises slightly. These small over-all changes are brought about by larger internal shifts, as is indicated in the lower part of Table 37. Twelve per cent of people originally preferred the car, but were so uneasy about the self-driving device that they voted for the airplane rather than the self-driving car. On the other hand, 9 per cent of people originally chose the plane and switched to the self-driving car in reply to the second question.

No socio-economic differences are discernible between those who changed their preference and those who repeated their original choice, except with respect to age. People in the 25-44 age group shifted to the self-driving car somewhat more frequently than older people. There is some evidence from other studies that younger people are particularly receptive to innovations. Readiness to switch to the self-driving car in the 25-44 year old group may also reflect life cycle stage, i.e., the advantages of auto travel when children are taken on a trip.

The self-driving car in 1961, in contrast to the jet plane in 1957-58, is remote from what people have actually experienced or are able to imagine. We should assume that in people's minds this innovation is

Table 37

Reactions to Self-Driving Car, 1960

(distribution of respondents who have ever taken
an auto trip to a place 500 miles or more away)

<u>Mode</u>	<u>Original Preference</u> ^{1/}	<u>Preference After Mention of Self- Driving Car</u> ^{2/}
Car	51%	48%
Plane	33	38
Depends	10	14
Not ascertained	6	
	<hr/>	<hr/>
Total	100%	100%
Number of respondents	(878)	(878)

<u>Original Preference:</u>	<u>Preference After Mention of Self-Driving Car</u>			
	<u>Car</u>	<u>Plane</u>	<u>Not ascertained</u>	<u>All</u>
Car	33.6	12.1	5.1	50.8
Plane	8.7	22.0	2.3	33.0
Depends	4.9	3.4	1.6	9.9
Not ascertained	0.6	0.7	5.0	6.3
All	47.8	38.2	14.0	100.0%

^{1/} The question was: "If you were going to a place 500 miles away and could go by car or plane just as you pleased, which would you prefer?"

^{2/} The question was: "Suppose that they invented something so that your car would drive itself - on a trip to a place 500 miles away, would you rather ride in your car while it drove itself or go by airplane?"

separated from reality by a much greater gap than was the jet plane in 1957-58. The survey data indicate that much preparation and demonstration is needed before people can seriously evaluate the advantages or disadvantages of such a car for their own use. Lacking knowledge about the car, a low level of acceptance is to be expected.

After choosing between the self-driving car and the airplane, people were asked to explain the reasons for their choice. Table 38 shows the kinds of reasons given, tabulated separately for four groups of people: (1) those who preferred the car originally and again chose the car after hearing about the self-driving device, (2) those who preferred the plane in both cases, (3) those who switched from car to plane after hearing about the device, (4) those who switched from the airplane to the self-driving car.

Those who chose the car both times seldom referred to the self-driving device. The majority repeated previously mentioned arguments for wanting to travel by car. Their answers give some additional insights into the popularity of long-distance auto travel. Nearly half of these people stated clearly that they prefer to travel by car because they have negative feelings about plane travel. Another large group spoke of positive advantages of car travel - being able to see the scenery, freedom of route and schedule, economy, and having the car at the destination. Similarly most plane travelers simply restated their reasons for preferring air travel. Over half of those who chose the plane both times mentioned speed as the reason for their preference. A smaller group argued that plane travel is less tiring than auto travel, or simply that they like to fly. A fourth of this group expressed distrust of the self-driving device.

Table 38

Reasons for Reactions to Self-Driving Car, 1960
(distribution of all respondents who have ever taken
an auto trip to a place 500 miles or more away)

		Preference			
Reasons for Preferring Car	All	Car Both Times	Plane Both Times	Switched from Car to Plane	Switched from Plane to Car
Device related responses					
Device would make trip less tiring	3%	4%	*	*	14%
Other explanations	5	7	*	*	22
Non-device related responses					
Don't like flying	18	47	1%	1%	10
Sightseeing	17	32	1	1	27
Freedom of time and of route	8	14	*	1	18
Economy	2	4	*	1	9
Have car at destination	4	5	*	*	11
Other explanations	9	18	*	1	17
Reasons for Preferring Plane					
Device related responses					
Distrust device	5	*	7	14	*
Don't like idea of driverless car	5	*	5	29	1
Miss driving own car	4	*	4	18	*
Other explanations	7	1	8	31	*
Non-device related responses					
Speed, time saving	15	*	55	8	2
Like plane travel	2	*	11	*	*
Comfort	5	*	19	1	2
Don't like car travel	2	*	7	1	*
Other explanations	6	*	24	3	1
Total	**	**	**	**	**
Number of respondents	(878)	(295)	(193)	(106)	(78)

* Less than 0.5 per cent.

** The "total" is more than 100 per cent because some respondents gave more than one reason.

It was primarily among the group who switched their preference after hearing about the device that specific reactions to the device were voiced. The most frequent favorable reaction to the device was that it would make auto travel less tiring. Some were of the opinion that it would make auto travel safer. Others observed that it would give the driver a chance to enjoy the scenery. On the negative side, the most common reaction was one of distrust. People expressed outright skepticism or simply said that they don't like the idea of a driverless car. Some others thought they would miss driving their car. People's reactions can be conveyed best by quoting some of our respondents.

FAVORABLE COMMENTS:

"I would like to go by car. I would like being driven as that would take the monotony out of driving for me." (31 year old newspaper printer)

"A gadget like that would make auto travel safer." (Semi-retired real estate broker, age 62)

"Seems like a restful way of traveling in safety." (Wife of a factory worker, age 30, mother of six children)

"It must be nice to see the scenery and not have to worry about the driving." (Housewife, age 33)

"It's cheaper, you see more of the countryside, and I enjoy a car trip when it isn't work." (Restaurant owner, age 58)

"Not nearly the strain if the car drove itself." (Housewife, age 39, mother of three children)

"If you did not have to drive you could really sightsee. Also you wouldn't have to worry about poor drivers." (Wife of an aircraft flight inspector, age 39)

"You'd have no worries. You could enjoy the scenery without having to watch the guy in front of you and the guy back of you." (Manager of wholesale drug company, age 26)

"It seems you can enjoy the ride and see the scenery better." (Butcher's wife, age 24)

"Sounds like a good idea so that the driver could also enjoy the trip." (Shipping clerk, age 32)

UNFAVORABLE COMMENTS:

"I would travel by airplane - lots of things could go wrong if a car drove itself." (30 year old wife of a farmer)

"Go by plane - let someone else take the responsibility if you are just going to ride." (Wife of an Air Force lieutenant)

"I like to be behind the wheel and make the turns. I don't want something driving my car for me." (Receiving clerk at a heavy machinery sales company, age 33)

"I don't trust those mechanical gadgets." (Clerk, age 27)

"I enjoy driving and the device would take the fun out of it." (Wife of a professional golfer, age 42)

"I just wouldn't trust a car to drive itself." (Janitor, age 42)

"Well, this would take away the fun of driving, and if you are not going to be in control of the machine you may as well make the trip as short as possible." (Graduate student, age 23)

"It'd take the joy out of driving. You can't stop and enjoy the scenery." (Machinist, age 39)

"I'd have to know that the thing that makes the car go was awful safe." (Well driller's wife, age 50)

"I don't trust the method. Mechanical things may break down, then fatal." (Gas company employee, age 58)

* * * *

The factors leading to the choice of the family car for long-distance trips may now be summarized briefly. The car is considered particularly suitable for vacation travel and for trips which include children. The opportunity to see the sights along the way and flexibility of route and time schedule are the two major attractions of the automobile on such occasions. These two advantages are not likely to be matched by

the airplane in the foreseeable future. Another important reason for preferring the automobile for vacation and personal travel is economy. Conceivably changes in rates, particularly for wives and children, may in the future alter the share of vacation and personal business travel now going to the car. Having the car at one's destination seems to be a less salient consideration; here again any future changes in car rental costs may make some difference. Finally, it appears that many people travel by car because they don't like or are afraid of flying.^{4/} This reason for auto travel is likely to diminish in importance in the future as the younger generation with favorable attitudes toward flying gradually outnumber the older generation in the travel market.

The airplane is considered most appropriate for business travel and for very long trips (those of 1000 miles or more). It is also preferred on occasions when one family member is traveling alone and would have to do all the driving (probably economy considerations also cease to favor the car in this case). The notions that air travel is less tiring and that it saves time also seem to be prominent in the minds of many air travelers.

^{4/} See Table 38 above; also John B. Lansing, The Travel Market, 1957, Survey Research Center, University of Michigan, pp. 88-98.

CHAPTER V

OVERSEAS TRAVEL

An important segment of the travel market is the market for overseas travel. Overseas trips exclude those to places on the North American continent, that is, to Canada or Mexico. Trips to the Caribbean and Hawaii are considered overseas trips. A short sequence of questions on overseas travel in 1959-60 and on overseas travel history were included in the present survey. This chapter presents an analysis of these two topics.

Overseas Travel in 1959-60

The proportion of the adult population who go overseas is small. In 1959-60, 1 per cent per year of all adults went overseas (Table 39).

Suggestive information was obtained with regard to the mode and destination of overseas travel. These data are indicative only of approximate orders of magnitude because the study included only 81 adults who went overseas in 1959-60. It seems that about two-thirds of the adults who did go overseas went by plane, while the rest went by ship. Slightly more than half of the adults who went overseas went to areas outside Europe, such as Hawaii and South America.

The present study is better suited to investigating the problem of what determines the probability that an individual will take at least one overseas trip. It seems reasonable to expect that previous experience with overseas travel, family income, and stage in the life cycle may be factors associated with overseas travel in 1959-60.

Table 39

Overseas Travel by Prior Experience With Overseas Travel, 1959-60
(per cent of all adults)

<u>Overseas Travel</u>	<u>All</u>	<u>Prior Experience with Overseas Travel</u>	
		<u>Had taken an overseas trip</u>	<u>Had not taken an overseas trip</u>
Took an overseas trip	1.0%	11.9%	0.4%
Did NOT take an overseas trip ^{1/}	99.0	88.1	99.6
Total	100.0%	100.0%	100.0%
Number of adults	(8329)	(487)	(7848)

^{1/} Includes a few adults for whom it was not ascertained whether they took an overseas trip.

The question was: "Did you go overseas during the last 12 months?"

Previous experience with overseas travel: Table 39 shows that most of the people who took an overseas trip in 1959-60 had previous experience with overseas travel.

About 12 per cent of the experienced overseas travelers took an overseas trip in 1959-60. Less than one-half of one per cent of the people who had not previously taken an overseas trip took such a trip during the same period. This means that about a third of the 1959-60 overseas travelers were taking their first overseas trip at the time. Experience with overseas travel seems to stimulate the appetite for further trips. Also there is probably an income effect here in that overseas travelers are high income people who can afford to take a number of overseas trips.

Family income: As shown in Table 40, the probability that an individual will take an overseas trip is strongly related to his income. About 8 per cent of the individuals in the income class \$15,000 and over took

Table 40

Overseas Travel by Family Income, 1959-60
(per cent of all adults)

<u>Overseas Travel</u>	<u>All</u>	<u>Family Income</u>					
		<u>Under \$3000</u>	<u>\$3000 -4999</u>	<u>\$5000 -7499</u>	<u>\$7500 -9999</u>	<u>\$10,000 -14,999</u>	<u>\$15,000 and Over</u>
Took an overseas trip	1%	*	*	1%	1%	2%	8%
Did NOT take an ^{1/} overseas trip	99	100	100	99	99	98	92
Total	100%	100%	100%	100%	100%	100%	100%
Number of adults	(8329)	(1773)	(1732)	(2309)	(1093)	(919)	(399)

* Less than 0.5 per cent.

^{1/} Includes a few adults for whom it was not ascertained whether they took an overseas trip.

an overseas trip in 1959-60. Only about 2 per cent of the adults in the \$10,000 to \$15,000 income bracket took an overseas trip during the same period. The proportion who went overseas is 1 per cent or less in all of the income classes below \$10,000 a year.

Life cycle stage: If an adult is single or married with no children, age seems to make little difference in whether or not he is likely to take an overseas trip. The greatest frequency of overseas travel is found among couples without children (Table 41), regardless of age. Two per cent of such couples both under and over 45 went overseas in 1959-60. Among single adults in both age groups about one per cent a year went overseas. Among married adults with children, the chances of overseas travel rise somewhat with age. Children seem to inhibit younger couples from traveling overseas. Also, these younger adults have not yet reached their peak earning capacity. Of the older adults with children, one per cent went overseas in 1959-60.

Table 41

Overseas Travel by Life Cycle Stage, 1959-60
(per cent of all adults)

<u>Overseas Travel</u>	<u>All</u>	<u>Life Cycle Stage</u>					
		<u>Young, Single</u>	<u>Young, Married, No Children</u>	<u>Young, Married, Children</u>	<u>Older, Married, Children</u>	<u>Older, Married, No Children</u>	<u>Older, Single</u>
Took an overseas trip	1%	1%	2%	*	1%	2%	1%
Did NOT take an overseas trip	99	99	98	100	99	98	99
Total Number of adults	100% (8329)	100% (870)	100% (528)	100% (2396)	100% (1653)	100% (1788)	100% (918)

* Less than 0.5 per cent.

1/ Includes a few adults for whom it was not ascertained whether they took an overseas trip.

Overseas Travel History

An investigation of the relationships between overseas travel history and the two variables, family income and age of the adult, is presented below.

Family income: In view of the high positive correlation between family income and taking an overseas trip in 1959-60, it would be reasonable to expect a similar correlation between family income and ever having taken an overseas trip. Table 42 shows that 6 per cent of all adults have ever taken an overseas trip, exclusive of travel in the Armed Forces. The expectation of a high positive correlation between family income and ever having taken an overseas trip is borne out by the data. The proportion of the adult population who have ever been overseas rises slowly from 3.4 per cent to 6.1 per

Table 42

Overseas Travel History by Family Income, 1959-60
(per cent of all adults)

Year of first overseas trip	All	Family Income					
		Under \$3000	\$3000 -4999	\$5000 -7499	\$7500 -9999	\$10,000 -14,999	\$15,000 and Over
Have taken an overseas trip	6.1%	3.4%	3.6%	5.4%	6.1%	10.3%	22.6%
Before 1930	1.2	1.4	0.8	0.9	1.1	1.4	3.0
1930-1934	0.2	0.3	0.3	0.1	0.2	0.4	0.5
1935-1939	0.3	*	0.2	0.2	0.3	0.3	3.0
1940-1944	0.3	*	0.1	0.2	0.7	0.6	1.0
1945-1949	0.6	0.1	0.4	1.0	0.4	0.9	2.0
1950-1954	1.3	0.4	0.8	1.3	1.2	2.6	3.5
1955-1958 ^{1/}	1.7	0.9	0.6	1.5	2.0	3.2	7.3
1959-1960	0.4	0.1	0.3	0.2	0.2	0.7	2.0
Year N. A.	0.1	0.2	0.1	*	*	0.2	0.3
Have never taken an overseas trip	93.9	96.6	96.4	94.6	93.9	89.7	77.4
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number of adults	(8329)	(1773)	(1732)	(2309)	(1093)	(919)	(399)

* Less than 0.05 per cent.

^{1/} Includes a few people who took their first overseas trip in 1959.

The question was: "In about what year did you first go overseas?"

cent as income increases from under \$3000 to \$7500-10,000. Then the proportion rises more sharply. Ten per cent of the adults in the \$10,000 to \$15,000 income group have taken at least one overseas trip at some time in their lives. And in the income range of \$15,000 and over an even more sizeable proportion - 23 per cent - of the adults have taken an overseas trip. In this top income group 2 per cent took their first overseas trip in 1959-60.

Table 43
Overseas Travel History by Age, 1959-60
(per cent of all adults)

<u>Year of first overseas trip</u>	<u>Age of Adult at Time of Survey</u>						
	<u>All</u>	<u>18-24</u>	<u>25-34</u>	<u>35-44</u>	<u>45-54</u>	<u>55-64</u>	<u>65 and Over</u>
Have taken an overseas trip	6.1%	2.0%	5.8%	5.4%	7.2%	8.6%	7.4%
Before 1930	1.2	*	0.1	0.5	1.2	2.7	3.8
1930-1934	0.2	*	0.1	0.3	0.3	0.8	*
1935-1939	0.3	0.1	0.1	0.5	0.5	0.3	0.6
1940-1944	0.3	*	0.1	0.8	0.4	0.3	*
1945-1949	0.6	*	0.8	0.5	0.9	0.4	0.7
1950-1954 ^{1/}	1.3	0.3	2.0	0.8	1.5	1.7	0.9
1955-1958 ^{1/}	1.7	1.2	2.3	1.7	1.6	1.6	0.9
1959-1960	0.4	0.4	0.1	0.2	0.7	0.8	0.2
Year N. A.	0.1	*	0.2	0.1	0.1	*	0.3
Have never taken an overseas trip	93.9	98.0	94.2	94.6	92.8	91.4	92.6
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Number of adults	(8329)	(969)	(1767)	(1837)	(1636)	(1030)	(1037)

* Less than 0.05 per cent.

^{1/} Includes a few people who took their first overseas trip in 1959.

Age of the adult: The data in Table 43 may be used to answer two questions. What proportion of adults at various ages in 1959-60 have been overseas? And, have there been any important changes in the proportion of adults at various ages who have been overseas?

The proportion of adults in each age class who have taken at least one overseas trip during their life rises as age increases. Only 2 per cent of those who are now 18 to 24 have taken an overseas trip. Between 5 and 6 per cent of those who are from 25 to 44 years of age have taken an overseas trip. More than 7 per cent of the adults over 45 have been abroad.

Two factors may explain these findings. One is the accumulation of experience with age; the other is the general rise in overseas travel, which affects all age groups. The older adults have had more chance to experience overseas travel. Adults have been taking overseas trips ever since the discovery of the continent, and individuals now aged 65 and over may have taken their first overseas trip at any time in their lives. In fact, half of those now aged 65 and over who have been overseas took their first overseas trip before 1930. Yet Table 43 also shows a sharp increase in overseas travel since 1950. In the middle age brackets (35-64) about half of the adults who have been overseas took their first trip in the last 10 years, suggesting that middle aged and old people are participating in the boom in overseas travel.

The change in the proportion of adults at various ages who have been overseas is illustrated best by means of a cohort analysis. A cohort is a group of adults born during a particular span of time. For example, the adults aged 18 to 24 in 1960 are the cohort of 1936-42. We use an average and call this group the cohort of 1940.

Chart II shows the overseas travel experience of different cohorts. The steepness of each curve portrays the rate of increase in the proportion of adults in that cohort who went overseas at various ages. The proportion of overseas travelers seems to increase more rapidly in the younger than in the older cohorts. By age 42, 3.8 per cent of the adults in the 1890 cohort, 4.1 per cent of the 1900 cohort and 4.8 per cent of the cohort of 1910 had traveled overseas.

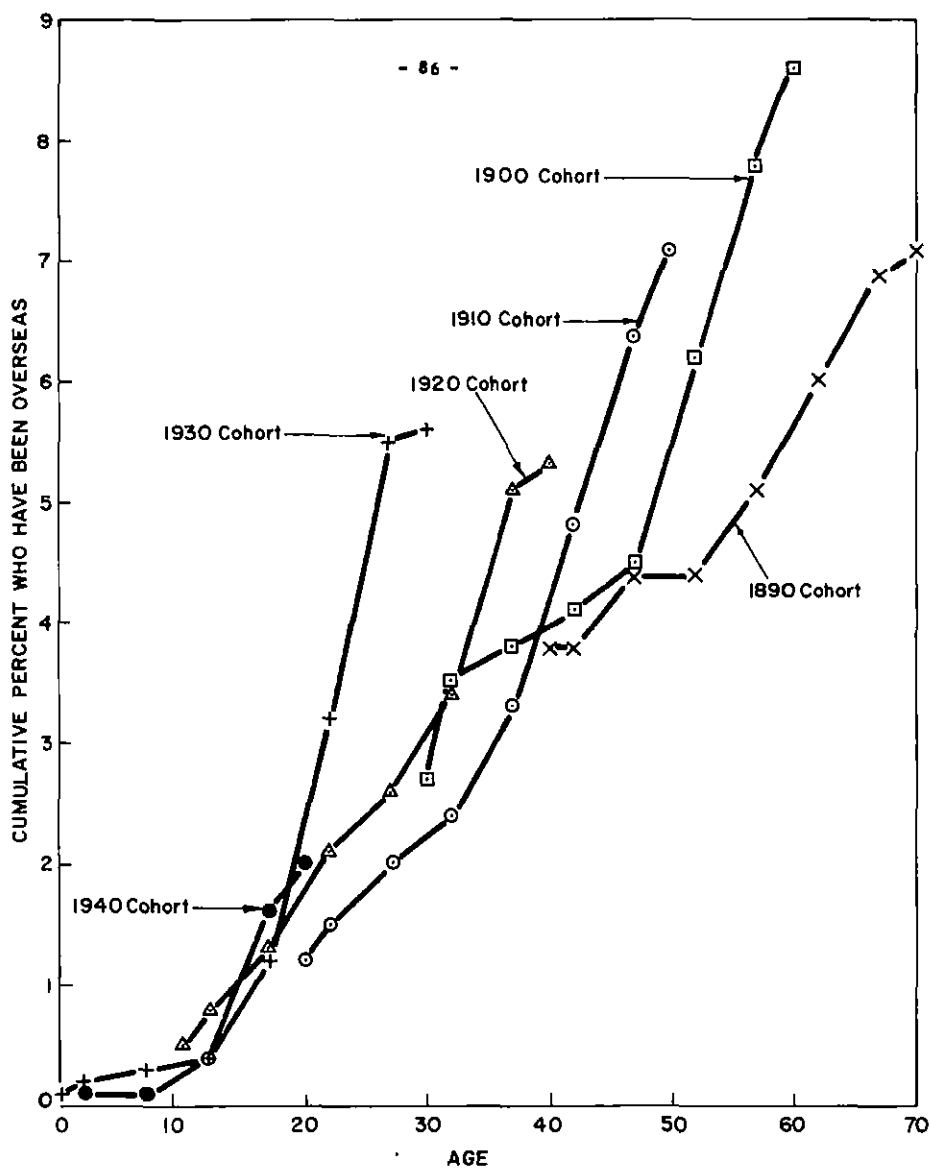


Chart 2 Cumulative Proportion of Each Cohort Who Had Been Overseas at Different Ages

A second use of the chart is to determine at what ages a given per cent of the adults in various cohorts had taken an overseas trip. Four per cent of the cohort of 1930 had been overseas by the time the members had reached an average age of 23. The 4 per cent level was reached by the cohorts of 1920, 1910, 1900, and 1890 at age 33, 39, 40, and 44 respectively. By the time the adults in the 1930 cohort had reached the age 30 (in 1960), as many of them had been overseas as had members of the cohort of 1890 by age 59.

It is both tempting and dangerous to extrapolate the curves for the younger cohorts. We can not predict what the future has in store for them, such as changes in the cost and speed of transportation and the nature of international relations. The data in the graph, however, do suggest a rapid increase in the coming decades in the proportion of the adult population who will have had the experience of traveling overseas.

CHAPTER VI

IMPLICATIONS FOR FUTURE RESEARCH

The analysis of current developments in common carrier, and particularly airplane, travel and the problem of projecting trends is handicapped at present by a number of gaps in our knowledge. It is appropriate therefore to conclude this report by setting forth the implications of this study for future research.

First, the analysis of the 1959-60 and earlier Travel Market Surveys points to the problem of "concentration." A small proportion of air travelers account for a major share of all air trips and also for a substantial share of rail trips. These frequent travelers are concentrated in the upper income brackets and among professional people and salaried businessmen. Only a modest proportion of a cross-section of the population falls into these crucial categories. Hence our information about the travel patterns of this vital group is based on a relatively small number of cases. What is needed is a regular program of collecting data on the travel experience of upper income people. If a series of travel questions were asked of these people in several surveys in the course of a year, the data could be combined to yield a larger sample (and better representation) of that segment of the population.

Secondly, trend analysis and the use of the travel data for projections are now handicapped by our inability to distinguish between cyclical and structural changes in the travel market. The comparisons of

the 1955, 1957, and 1959-60 data clearly illustrate this problem. The year 1955 was one of excellent business conditions; the economy also operated at a high level in the period covered by the 1957 survey (1956-1957); but during much of the 1959-60 period the economy was in a recession. It is hardly plausible to attribute the lack of growth during the past 3 years in the proportion of adults traveling by common carrier and in the proportion taking non-business air trips to saturation in the travel market. But we do not know whether these findings reflect the lower stage of the business cycle or a shift in preferences between the automobile and other modes of transportation (say, due to better roads). To learn how cyclical factors affect business, vacation, and personal travel, and possibly the choice between modes of transportation, we need to accumulate data regularly over a number of cycles. With better knowledge of the nature of cyclical influences, long term trends in the travel market can be identified with greater confidence.

Third, the series of Travel Market studies indicates that choice of mode of transportation is partly determined by characteristics of the traveler, for example his income, age, and previous travel experience. Notable progress has been made in utilizing cross-sectional information about the relation between travel and characteristics of travelers for forecasting purposes.^{1/} Yet the present study shows that choice of mode also depends to an important extent on the characteristics of trips -

^{1/}

Particularly, The Port of New York Authority, Air Travel Forecasting, 1965-1975, The Eno Foundation for Highway Traffic Control (Saugatuck, Connecticut), 1957.

whether business or vacation (and if so, what kind of vacation), distance, what family members go on the trip, how important it is to save time, etc. Unless we assume that the kinds of trips taken are an unchanging function of the characteristics of the traveler, it appears that more information is needed about characteristics of trips taken by American families under different conditions. The aim should be to identify (and, hopefully, project) changes over time in the kinds of trips taken.

Fourth, the growth of the travel market cannot be fully understood, unless we link travel studies to other studies of consumer expenditures. Far too little is known about the amounts people spend on vacation and weekend trips and how these amounts are related to income and other financial and demographic variables. It is important to learn how travel fits into the consumer's budget. For example, under what conditions do people allocate money for vacations on a regular basis? Under what conditions is travel an alternative to, say, buying a car or putting a new roof on the house? To what extent is it dependent on income increases, financial windfalls, having a vacation with pay, or on optimistic expectations?

Fifth, detailed studies of specific recent travel decisions could contribute to our knowledge of the decision making process. Survey techniques are capable of yielding answers to questions such as these: How did the family decide whether to take a vacation and where to go? What kinds of alternatives were discussed? What considerations led to the particular choice made rather than some other? What were the views of different family members? How was mode of transportation decided upon? What other modes were considered? What were the advantages and disadvantages

of the particular mode chosen? What information was obtained regarding the trip and where? Who are the opinion leaders in the travel market? An intensive study of recent travel decisions would be a useful complement to other studies, even if based on a relatively small sample.

Finally, we have reason to assume that certain psychological or attitudinal variables influence the kinds of trips taken and the mode of travel. The study of attitudes, preferences, and the individual and social needs which travel is supposed to satisfy should be extended. Attitudes toward different kinds of trips and modes of travel should be measured for all travelers and potential travelers with the aim of linking attitudes and preferences to the kinds of trips taken and to mode of transportation. Attitudes and preferences are likely to change over time. Hence periodic measurements of attitudes and preferences would contribute to our understanding of incipient changes in the travel market.

The last point may be illustrated by raising the following question: Has the country, and the world, become smaller in the minds of the American people, so that what a few years ago was considered a long trip is now seen as a short trip? In other words, do number of miles, cost, or traveling time by plane (jet) determine whether people decide on a trip to a distant or near-by point? The increase of travel to Europe seems to indicate that traveling time has become a relevant consideration for some people. Detailed studies about different people's perceptions of the size of the United States and the world might furnish clues to future travel trends.

APPENDIX A

THE QUESTIONNAIRE

The study was conducted in two stages. The questionnaire for the second set of interviews taken in October-November of 1960 is reproduced below. Only the questions on page 94 were included in the first wave of interviews taken in January-February 1960.

We'd like to know how much traveling people do by plane, train, auto and bus?

T1. INTERVIEWER: ENTER <u>EACH</u> ADULT. CHECK (✓) R.	I. HEAD	II.	III.
---	---------	-----	------

ASK T2-T12 FOR EACH ADULT IN THIS FAMILY UNIT

T2. Have you (he) ever traveled overseas either by ship or by plane--NOT counting travel in the armed forces?	<input type="checkbox"/> YES <input type="checkbox"/> NO (Skip to T7)	<input type="checkbox"/> YES <input type="checkbox"/> NO (Skip to T7)	<input type="checkbox"/> YES <input type="checkbox"/> NO (Skip to T7)
T3. In about what year did you (he) first go overseas?	____ Year	____ Year	____ Year
T4. Did you (he) go overseas during the last twelve months?	<input type="checkbox"/> YES <input type="checkbox"/> NO (Skip to T7)	<input type="checkbox"/> YES <input type="checkbox"/> NO (Skip to T7)	<input type="checkbox"/> YES <input type="checkbox"/> NO (Skip to T7)
T5. Did you (he) go to Europe or some other part of the world?	<input type="checkbox"/> Europe <input type="checkbox"/> Other	<input type="checkbox"/> Europe <input type="checkbox"/> Other	<input type="checkbox"/> Europe <input type="checkbox"/> Other
T6. Did you (he) cross the ocean by ship or by plane? (IF BOTH CHECK BOTH)	<input type="checkbox"/> Ship <input type="checkbox"/> Plane (Skip to T8)	<input type="checkbox"/> Ship <input type="checkbox"/> Plane (Skip to T8)	<input type="checkbox"/> Ship <input type="checkbox"/> Plane (Skip to T8)
T7. Have you (he) ever taken a trip to a place <u>100</u> or more miles away by <u>AIR</u> ?	<input type="checkbox"/> YES <input type="checkbox"/> NO (Skip to T13)	<input type="checkbox"/> YES <input type="checkbox"/> NO (Skip to T13)	<input type="checkbox"/> YES <input type="checkbox"/> NO (Skip to T13)
T8. In about what year did you (he) first take an air trip?	____ Year	____ Year	____ Year
T9. During the last twelve months, did you (he) take any air trips to places <u>100</u> miles or more away, on <u>COMMERCIAL OR PUBLIC AIRLINES</u> ?	<input type="checkbox"/> YES <input type="checkbox"/> NO (Skip to T13)	<input type="checkbox"/> YES <input type="checkbox"/> NO (Skip to T13)	<input type="checkbox"/> YES <input type="checkbox"/> NO (Skip to T13)
T10. How many air trips on commercial airlines did you (he) take during the last twelve months-- <u>COUNTING A ROUND TRIP AS ONE TRIP</u> ?	____ (number of trips)	____ (number of trips)	____ (number of trips)
T11. How many of these trips were business trips--I mean trips in connection with your (his) work?	____ (number of trips)	____ (number of trips)	____ (number of trips)
T12. Did you (he) take any trips by company plane in the last twelve months?	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO

T13. INTERVIEWER: REPEAT SEQUENCE SO A COLUMN IS COMPLETED FOR EACH ADULT IN THIS FAMILY UNIT.

RESPONDENT TOOK AN AIR TRIP IN LAST 12 MONTHS, GO TO T14 BELOW: OTHERWISE GO TO T36, PAGE 18

ASK QUESTIONS T14 - T35 ABOUT RESPONDENT'S MOST RECENT AIR TRIP IN LAST 12 MONTHS

4. When did you take your most recent trip on a commercial airline to a place 100 or more miles away? _____ (Month & Year)
5. What was the most distant place you reached on that trip? _____ (Town & State)
6. How far is that from here? (Miles) ☐ 100-199 ☐ 200-299 ☐ 300-399 ☐ 400-499
☐ 500-599 ☐ 600-699 ☐ 700-999 ☐ 1000-1499 ☐ 1500 and over
7. Who went with you? _____
8. How long were you away? ☐ Back same day ☐ 1 day up to 3 ☐ 3 days up to 7
☐ 7 days up to 10 ☐ 11 days up to 21 ☐ 21 days up to 35 ☐ 36 days or more
9. What was the purpose of this trip? _____

(IF TRIP IN CONNECTION WITH R's WORK) T20. Were you attending a convention, or meeting with a group of people, or just talking to one person, or did you have several appointments?

T21. How long did you spend at your meeting or appointments ALTOGETHER-- was it less than an hour, about an hour, two or three hours, half a day, a day, or more than one day?

10. When you started on the trip, did you leave for the airport from your home, your office, or where?

☐ Home

☐ Office

☐ Other _____

11. How long did it take you to get to the airport? ☐ Under 15 minutes ☐ 15-29 min.
☐ 30-44 min. ☐ 45-59 min. ☐ 1 hour up to 2 ☐ 2 hours up to 3 ☐ 3 hours up to 5 ☐ 5 hours or more

After you got off the plane, how long did it take to get where you wanted to go?

☐ Under 15 minutes ☐ 15-29 min. ☐ 30-44 min. ☐ 45-59 min. ☐ 1 hour up to 2
☐ 2 hours up to 3 ☐ 3 hours up to 5 ☐ 5 hours or more

T25. COMING BACK, did you start for the airport from a hotel, an office, or where?

Hotel Office Other _____

One-way air trip (Skip to T29)

T26. How long did it take to get to the airport?

Under 15 minutes

15-29 min.

30-44 min.

45-59 min.

1 hour

2 hours

3 hours

5 hours

up to 2

up to 3

up to 5

or more

T27. When you got off the plane, did you go to your home, office, or where?

Home Office Other _____

T28. How long did it take to get there from the airport?

Under 15 minutes

15-29 min.

30-44 min.

45-59 min.

1 hour

2 hours

3 hours

5 hours

up to 2

up to 3

up to 5

or more

T29. While you were traveling, what did you like least about the trip? _____

T30. Was there anything (else) that was unpleasant in any way? _____

T31. If you had not traveled by air, which would you probably have gone by--rail, bus, or auto?

Rail Bus Auto Ship _____

T32. How much time do you think you saved by traveling by air? _____

T33. How important to you was it to save time? _____

T34. Was it cheaper or more expensive for you to travel by air? _____

(IF ANY
DIFFERENCE
IN COST)

T35. How important to you was the difference in cost? _____

ASK Q. T36 OF ALL RESPONDENTS

T36. DURING THE LAST TWELVE MONTHS, have you taken a trip by TRAIN to a place 100 miles or more away?

Yes

No (SKIP TO T45)

37. When did you take your most recent train trip to a place 100 or more miles away? _____ (Month & Year)

38. What was the most distant place you reached on that trip? _____ (Town & State)

39. How far is that from here? (Miles) ☐ 100-199 ☐ 200-299 ☐ 300-399 ☐ 400-499

☐ 500-599 ☐ 600-699 ☐ 700-999 ☐ 1000-1499 ☐ 1500 and over

40. How long were you away? ☐ Back same day ☐ 1 day up to 3 ☐ 3 days up to 7
☐ 7 days up to 10 ☐ 11 days up to 21 ☐ 21 days up to 35 ☐ 36 days or more

41. What was the purpose of the trip? _____

(IF TRIP IN CONNECTION WITH R's WORK) T42. Were you attending a convention, or meeting with a group of people, or just talking to one person, or did you have several appointments?

T43. How long did you spend at your meeting or appointments ALTOGETHER-- was it less than an hour, about an hour, two or three hours, half a day, a day, or more than one day?

T44. If you had not gone by rail, which would you have probably gone by--air, bus, or auto?

☐ Air ☐ Bus ☐ Auto _____

ASK Q. T45 OF ALL RESPONDENTS

T45. Have you ever taken an AUTO trip to a place 500 miles or more away?

☐ Yes ☐ No (SKIP TO T67)

T46. DURING THE LAST TWELVE MONTHS, have you taken an AUTO trip to a place 500 miles or more away?

☐ Yes ☐ No (SKIP TO T61)

T47. When did you take your most recent auto trip to a place 500 miles or more away? _____ (Month & Year)

T48. What was the most distant place you reached on that trip? _____ (Town & State)

T49. How far is that from here? (Miles)

500-599

600-699

700-999

1000-1499

1500 and over

T50. Who went with you? _____

T51. How long were you away?

Back same day

1 day up to 3

3 days up to 7

7 days up to 10

11 days up to 21

21 days up to 35

36 days or more

T52. What was the purpose of the trip? _____

(IF TRIP IN
CONNECTION
WITH R's
WORK)

T53. Were you attending a convention, or meeting with a group of people, or just talking to one person, or did you have several appointments?

T54. How long did you spend at your meeting or appointments ALTOGETHER-- was it less than an hour, about an hour, two or three hours, half a day, a day, or more than one day?

T55. Did you consider taking this trip by air?

Yes

No

T56. What would you say are the ADVANTAGES OF GOING BY CAR rather than by plane for a trip like this one? (Anything else?) _____

T57. Was it cheaper or more expensive for you to travel by AUTO than it would have been by plane? _____

(IF ANY
DIFFERENCE
IN COST)

T58. How important to you was the difference in cost? _____

T59. While you were traveling, what did you like least about the auto trip? _____

T60. Was there anything (else) about this trip that was unpleasant in any way? _____

61. IN GENERAL, how do you like long automobile trips? Why?

62. Do YOU ever do the driving on long auto trips? ☒ Yes ☐ No (SKIP TO T64)

63. How do YOU feel about driving a car several hundred miles in one day, do you enjoy it or dislike it?

64. If you were going to a place 500 miles away and could go by car or plane just as you pleased, which would you prefer?

65. Suppose that they invented something so that your car would drive itself--on a trip to a place 500 miles away, would you rather ride in your car while it drove itself or go by airplane?

66. Why is that? (Anything else?)

ASK Q. T67 OF ALL RESPONDENTS

67. DURING THE LAST TWELVE MONTHS, have you taken a trip by BUS to a place 100 miles or more away?

☒ Yes

☐ No (SKIP TO Q. P1, PAGE 22)

68. When did you take your most recent bus trip to a place 100 miles or more away? (Month & Year)

69. What was the most distant place you reached on that trip? (Town & State)

70. How far is that from here? (Miles) ☐ 100-199 ☐ 200-299 ☐ 300-399 ☐ 400-499

☐ 500-599

☐ 600-699

☐ 700-999

☐ 1000-1499

☐ 1500 and over

71. What was the purpose of the trip?

72. If you had not gone by bus, which would you probably have gone by--air, rail, or auto?

☐ Air

☐ Rail

☐ Auto

APPENDIX B

SAMPLING ERRORS

Properly conducted sample interview surveys yield useful estimates but they do not yield exact values. Errors arise from several sources: sampling, non-response, reporting and processing. Each source of error may be important in evaluating the accuracy of information. The present discussion is limited to sampling errors.

Sample statistics reflect the random variations arising from interviewing only a fraction of the population. The distribution of individuals selected for a sample will usually differ by an unknown amount from that of the population from which the sample is drawn. The value which would have been obtained if the entire population had been designated to be interviewed by the same survey procedures will be referred to as the population value. If different samples were used under the same survey conditions, some of the estimates would be larger than the population value and some would be smaller. The sampling error is a measure of the chance deviation of a sample statistic from the corresponding population value. The sampling error does not measure the actual error of a particular sample estimate; rather, it leads to statements in terms of confidence intervals that are correct in a specified proportion of cases in the long run. Each statement declares that the range of the sampling error on either side of the sample estimate includes the population value.

"Sampling error" as used here is to be interpreted as two standard errors; it is the range, on either side of the sample estimate, chosen frequently in social research in order to obtain the 95 per cent "level of confidence". If one requires a greater degree of confidence than this, a wider range than two standard errors should be used. On the other hand, most of the time the actual error of sampling will be less than the sampling error defined above; in about 68 cases of every 100 the population value can be expected to lie within a range of one-half the sampling error (one standard error) of the sample estimates.

For example, the survey estimate that 9.2 per cent of all adults took one or more air trips in 1959-60 is subject to a sampling error of about 1.2 percentage points (see Appendix Table 1). Thus, the statement that the population value is within the range of 8.0 to 10.4 has about 95 in 100 chances of being correct.

Sampling errors themselves are products of the sampling processes and are subject to the effects of random fluctuations. Therefore, a range, rather than a single value, has been used in the tables which follow. The upper limits are based on computations of data from earlier travel surveys. They are not averages but values on the high or conservative side. The smaller values were computed by use of the formula for simple random samples which can be viewed as the lower bound to the Survey's sampling errors.

Appendix Tables 1 and 2 are appropriate for use where the underlying data are on a "per adult" basis, that is, when the results for each adult in a family are presented individually. For tables on a "per

respondent" or "per interview" basis the sampling errors are smaller.

Appendix Tables 3 and 4 show sampling errors applicable to data on a "per interview" basis.

Appendix Tables 1 and 3 show approximate sampling errors of percentages when individual percentages are considered separately. Appendix Tables 2 and 4 show approximate sampling errors of differences between two percentages. If two subgroups of the population are compared for which the population value is in fact identical, differences greater than sampling error will be observed in 5 cases out of 100. Conversely, if the difference between two percentages exceeds the sampling error of differences, the chances are that the population values differ in the indicated direction.

Appendix Table 1: Approximate Sampling Errors of Percentages for "Per Adult" Responses
(expressed in percentages)

Reported Percentage	Number of Adults													
	8500	5500	4200	3000	2500	2000	1500	1000	700	500	400	300	200	100
50	1.1	1.3	1.5	1.8	2.0	2.2	2.6	3.2	3.8	4.5	5.0	5.8	7.1	10.0
	2.9	3.2	3.5	4.0	4.2	4.7	5.3	6.2	7.3	8.6	9.6	11.0	13.4	18.8
30 or 70	1.0	1.2	1.4	1.7	1.8	2.0	2.4	2.9	3.5	4.1	4.6	5.3	6.5	9.2
	2.6	3.0	3.2	3.6	3.9	4.3	4.8	5.7	6.7	7.9	8.8	10.1	12.3	17.2
20 or 80	0.9	1.1	1.2	1.5	1.6	1.8	2.1	2.5	3.0	3.6	4.0	4.6	5.7	8.0
	2.3	2.6	2.8	3.2	3.4	3.7	4.2	5.0	5.9	6.9	7.6	8.8	10.7	15.0
10 or 90	0.7	0.8	0.9	1.1	1.2	1.3	1.5	1.9	2.3	2.7	3.0	3.5	4.2	6.0
	1.7	1.9	2.1	2.4	2.5	2.8	3.2	3.7	4.4	5.2	5.7	6.6	8.1	11.3
5 or 95	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.4	1.6	1.9	2.2	2.5	3.1	4.4
	1.3	1.4	1.5	1.7	1.8	2.0	2.3	2.7	3.2	3.7	4.2	4.8	5.9	8.2
1 or 99	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.4	2.0
	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.2	1.4	1.7	1.9	2.1	2.7	3.7

Appendix Table 2: Sampling Errors of Differences for "Per Adult" Responses
(expressed in percentages)

Size of Subgroup	Size of Subgroup											
	8000	5000	4000	2000	1500	1250	1000	700	500	300	200	100
	For percentages around 35% and 65%											
8000	1.6-4.1	1.8-4.4	1.9-4.6	2.5-5.5	2.8-6.0	3.0-6.4	3.4-6.9	3.9-7.9	4.6-9.1	5.9-11.4	7.2-13.7	10.1-19.0
5000		2.0-4.7	2.1-4.9	2.6-5.7	2.9-6.2	3.2-6.6	3.5-7.1	4.0-8.1	4.7-9.2	5.9-11.5	7.2-13.8	10.1-19.1
4000			2.2-5.1	2.7-5.9	3.0-6.4	3.2-6.7	3.5-7.2	4.1-8.2	4.7-9.3	6.0-11.6	7.2-13.9	10.1-19.2
2000				3.2-6.6	3.4-7.0	3.6-7.4	3.9-7.8	4.4-8.7	5.0-9.8	6.2-11.9	7.4-14.2	10.2-19.4
1500					3.6-7.4	3.8-7.7	4.1-8.2	4.6-9.1	5.2-10.1	6.3-12.2	7.5-14.4	10.3-19.6
1250						4.0-8.0	4.2-8.5	4.7-9.3	5.3-10.3	6.4-12.4	7.6-14.6	10.4-19.7
1000							4.5-8.9	4.9-9.7	5.5-10.6	6.6-12.7	7.8-14.8	10.5-19.9
700								5.4-10.4	5.9-11.3	6.9-13.2	8.0-15.3	10.7-20.2
500									6.3-12.2	7.2-14.0	8.4-15.9	11.0-20.7
300										8.2-15.6	9.1-17.3	11.5-21.8
200											10.0-18.9	12.2-23.1
100												14.1-26.6
For percentages around 20% and 80%												
8000	1.3-3.3	1.4-3.5	1.5-3.7	2.0-4.4	2.3-4.8	2.4-5.1	2.7-5.5	3.2-6.3	3.7-7.3	4.7-9.1	5.7-11.0	8.0-15.2
5000		1.6-3.8	1.7-3.9	2.1-4.6	2.4-5.0	2.5-5.3	2.8-5.7	3.2-6.4	3.8-7.4	4.8-9.2	5.8-11.1	8.1-15.3
4000			1.8-4.1	2.2-4.7	2.4-5.1	2.6-5.4	2.8-5.8	3.3-6.6	3.8-7.5	4.8-9.3	5.8-11.1	8.1-15.4
2000				2.5-5.3	2.7-5.6	2.9-5.9	3.1-6.2	3.5-7.0	4.0-7.8	5.0-9.5	5.9-11.4	8.2-15.5
1500					2.9-5.9	3.1-6.2	3.3-6.5	3.7-7.2	4.1-8.1	5.1-9.8	6.0-11.5	8.2-15.7
1250						3.2-6.4	3.4-6.8	3.8-7.4	4.2-8.2	5.1-9.9	6.1-11.7	8.3-15.8
1000							3.6-7.1	3.9-7.7	4.4-8.5	5.3-10.2	6.2-11.8	8.4-15.9
700								4.3-8.3	4.7-9.0	5.5-10.6	6.4-12.2	8.6-16.2
500									5.1-9.8	5.8-11.2	6.7-12.7	8.8-16.6
300										6.5-12.5	7.3-13.8	9.2-17.4
200											8.0-15.1	9.8-18.5
100												11.3-21.3

For percentages around 10% and 90%												
8000	0.9-2.5	1.1-2.7	1.2-2.8	1.5-3.3	1.7-3.6	1.8-3.8	2.0-4.1	2.4-4.7	2.8-5.4	3.5-6.8	4.3-8.2	-----
5000		1.2-2.8	1.3-2.9	1.6-3.4	1.8-3.7	1.9-3.9	2.1-4.2	2.4-4.8	2.8-5.5	3.6-6.9	4.3-8.3	-----
4000			1.3-3.0	1.6-3.5	1.8-3.8	1.9-4.0	2.1-4.3	2.5-4.9	2.8-5.6	3.6-7.0	4.4-8.3	-----
2000				1.9-4.0	2.1-4.2	2.2-4.4	2.3-4.7	2.6-5.2	3.0-5.9	3.7-7.1	4.5-8.5	-----
1500					2.2-4.5	2.3-4.6	2.4-4.9	2.7-5.4	3.1-6.1	3.8-7.3	4.5-8.6	-----
1250						2.4-4.8	2.5-5.1	2.8-5.6	3.2-6.2	3.9-7.4	4.6-8.8	-----
1000							2.7-5.3	3.0-5.8	3.3-6.4	3.9-7.6	4.7-8.9	-----
700								3.2-6.2	3.5-6.8	4.1-7.9	4.8-9.2	-----
500									3.8-7.3	4.3-8.4	5.0-9.5	-----
300										4.9-9.4	5.5-10.4	-----
200											6.0-11.3	-----
For percentages around 5% and 95%												
8000	0.7-1.8	0.8-1.9	0.8-2.0	1.1-2.4	1.2-2.6	1.3-2.8	1.5-3.0	1.7-3.4	2.0-4.0	2.6-4.9	3.1-6.0	-----
5000		0.9-2.1	0.9-2.1	1.2-2.5	1.3-2.7	1.4-2.9	1.5-3.1	1.8-3.5	2.0-4.0	2.6-5.0	3.1-6.0	-----
4000			1.0-2.2	1.2-2.6	1.3-2.8	1.4-2.9	1.5-3.1	1.8-3.6	2.1-4.1	2.6-5.1	3.2-6.1	-----
2000				1.4-2.9	1.5-3.1	1.6-3.2	1.7-3.4	1.9-3.8	2.2-4.3	2.7-5.2	3.2-6.2	-----
1500					1.6-3.2	1.7-3.4	1.8-3.6	2.0-3.9	2.2-4.4	2.8-5.3	3.3-6.3	-----
1250						1.7-3.5	1.8-3.7	2.1-4.1	2.3-4.5	2.8-5.4	3.3-6.4	-----
1000							1.9-3.9	2.1-4.2	2.4-4.6	2.9-5.5	3.4-6.5	-----
700								2.3-4.5	2.6-4.9	3.0-5.8	3.5-6.7	-----
500									2.8-5.3	3.1-6.1	3.6-6.9	-----
300										3.6-6.8	4.0-7.5	-----
200											4.4-8.2	-----

Appendix Table 3: Approximate Sampling Errors of Percentages for "Per Interview" Responses
(expressed in percentages)

Reported Percentage	Number of Interviews										
	4200	3000	2000	1500	1000	700	500	400	300	200	100
50	1.5	1.8	2.2	2.6	3.2	3.8	4.5	5.0	5.8	7.1	10.0
	2.6	2.9	3.4	3.9	4.6	5.3	6.1	6.7	7.6	9.1	12.7
30 or 70	1.4	1.7	2.0	2.4	2.9	3.5	4.1	4.6	5.3	6.5	9.2
	2.3	2.7	3.2	3.5	4.2	4.8	5.6	6.1	6.9	8.4	11.6
20 or 80	1.2	1.5	1.8	2.1	2.5	3.0	3.6	4.0	4.6	5.7	8.0
	2.0	2.3	2.8	3.1	3.7	4.2	4.9	5.3	6.0	7.3	10.2
10 or 90	0.9	1.1	1.3	1.5	1.9	2.3	2.7	3.0	3.5	4.2	6.0
	1.5	1.8	2.1	2.3	2.8	3.2	3.6	4.0	4.5	5.5	7.6
5 or 95	0.7	0.8	1.0	1.1	1.4	1.6	1.9	2.2	2.5	3.1	4.4
	1.1	1.3	1.5	1.7	2.0	2.3	2.7	2.9	3.3	4.0	5.5

Appendix Table 4: Sampling Errors of Differences for "Per Interview" Responses
(expressed in percentages)

Size of Subgroup	Size of Subgroup							
	2000	1500	1000	700	500	300	200	100
For percentages from about 35% to 65%								
2000	3.2-4.9	3.4-5.2 3.7-5.5	3.9-5.7	4.4-6.3	5.0-7.0	6.2-8.3	7.4-9.8	10.2-13.2
1500			4.1-6.0	4.6-6.5	5.2-7.2	6.3-8.4	7.5-9.9	10.3-13.3
1000			4.5-6.5	4.9-7.0	5.5-7.6	6.6-8.9	7.8-10.2	10.5-13.5
700				5.4-7.4	5.9-8.0	6.9-9.2	8.0-10.5	10.7-13.8
500					6.3-8.6	7.2-9.7	8.4-11.0	11.0-14.1
300						8.2-10.7	9.1-11.9	11.5-14.8
200							10.0-12.9	12.2-15.7
100								14.1-18.0
For percentages around 20% and 80%								
2000	2.5-3.9	2.7-4.1 2.9-4.4	3.1-4.6	3.5-5.0	4.0-5.6	5.0-6.6	5.9-7.8	8.2-10.6
1500			3.3-4.8	3.7-5.2	4.1-5.8	5.1-6.7	6.0-7.9	8.2-10.6
1000			3.6-5.2	3.9-5.6	4.4-6.1	5.3-7.1	6.2-8.2	8.4-10.8
700				4.3-6.0	4.7-6.4	5.5-7.4	6.4-8.4	8.6-11.0
500					5.1-6.8	5.8-7.8	6.7-8.8	8.8-11.3
300						6.5-8.6	7.3-9.5	9.2-11.8
200							8.0-10.3	9.8-12.6
100								11.3-14.4

For percentages around 10% and 90%								
2000	1.9-2.9	2.1-3.1	2.3-3.4	2.6-3.8	3.0-4.2	3.7-5.0	4.5-5.9	6.1-7.9
1500		2.2-3.3	2.4-3.6	2.7-3.9	3.1-4.3	3.8-5.0	4.5-6.0	6.2-8.0
1000			2.7-3.9	3.0-4.2	3.3-4.6	3.9-5.3	4.7-6.1	6.3-8.1
700				3.2-4.5	3.5-4.8	4.1-5.5	4.8-6.3	6.4-8.3
500					3.8-5.1	4.3-5.8	5.0-6.6	6.6-8.5
300						4.9-6.4	5.5-7.1	6.9-8.9
200							6.0-7.7	7.3-9.4
100								8.5-10.8
For percentages around 5% and 95%								
2000	1.4-2.1	1.5-2.3	1.7-2.5	1.9-2.7	2.2-3.0	2.7-3.6	3.2-4.3	
1500		1.6-2.4	1.8-2.6	2.0-2.9	2.2-3.1	2.8-3.7	3.3-4.3	
1000			1.9-2.8	2.1-3.0	2.4-3.3	2.9-3.9	3.4-4.4	
700				2.3-3.2	2.6-3.5	3.0-4.0	3.5-4.6	
500					2.8-3.7	3.1-4.2	3.6-4.8	
300						3.6-4.7	4.0-5.2	
200							4.4-5.6	

THE TRAVEL MARKET

1961-1962

by

John B. Lansing, William Ladd, and Nancy Barth

sponsored by

Federal Aviation Agency

General Motors Corporation

The Greyhound Corporation

The Hertz Corporation

The Port of New York Authority

Time, The Weekly Newsmagazine

April 1963

Survey Research Center

Institute for Social Research

The University of Michigan

Ann Arbor, Michigan

Preface

This report continues the series of national travel market survey begun in 1955 by the Survey Research Center of the University of Michigan. The 1961-1962 Survey consisted of three parts: a wave of interviews in the spring of 1962, a second wave of interviews with new respondents in the fall of 1962, and telephone reinterviews with frequent travelers covering the period of about three months between the spring interviews and the reinterviews in August 1962. This report covers the results from all three waves of interviews.

Sponsors of the 1961-1962 Survey

The following organizations are sponsors of this survey:

Federal Aviation Agency
General Motors Corporation
The Greyhound Corporation
The Hertz Corporation
The Port of New York Authority
Time, The Weekly Newsmagazine

The Sample

This report is based primarily on 1299 interviews taken between May 3 and June 10, 1962, and 1352 interviews taken between November 7 and December 15, 1962, or a total of 2651 interviews. In these interviews information was obtained about the travel of 5329 adults. The overall response rate was 80 per cent. The sample was selected in such a manner as to constitute a strict probability sample of all families in the United States living in private dwelling units. The techniques used are based on known probabilities of selection at every stage in the sampling process down to the selection of the family to be interviewed. Within the family the respon-

dent was designated as either the head of the family or the wife of the head on a random basis. Information about the frequency of travel was collected with regard to the travel of all members of the family regardless of which adult was the respondent.

Reinterviews by telephone were taken with 224 families. The families to be reinterviewed in this manner were selected from those families reporting ten or more trips by any mode of transportation in the spring wave. Of 295 families meeting this criterion, 11 per cent had no phone, and for an additional 7 per cent the phone number was refused or not obtained for some other reason. Of 242 families for which a telephone reinterview could be attempted, about 93 per cent were successfully reinterviewed.

The Staff

This study was carried out by the staff of the Survey Research Center, a division of the Institute for Social Research of the University of Michigan. The Institute is under the directorship of Rensis Likert while the Director of the Center is Angus Campbell. This study was carried out in the economic behavior program of the Center, George Katona, Director. The Center's Field Staff is under the direction of Charles Cannell, while the Director of Sampling is Leslie Kish. For this project, study design, analysis, and report writing were the responsibility of John B. Lansing assisted by William Ladd and Nancy Barth. The typing for photographic reproduction was done by Velna Blood and Sandra Berman.

This Report

This report supercedes an earlier report entitled Interim Report on the 1961-1962 National Travel Market Survey. The contents of that report are repeated here, and this report follows the outline of the earlier report. The present report, however, is based on the full sample from the two main

waves of data collection and also includes the results of the telephone re-interviews. The present report is, therefore, much more extensive, containing more than twice as many tables as the Interim Report.

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I. Summary

Attitudes toward travel

If they were free to spend their vacation as they chose nearly nine out of ten Americans would travel. The most popular destinations are Florida and California.

People who travel a lot are regarded as fortunate, wealthy, and well-informed.

People stay home, financial reasons being set aside, on account of children, old age, poor health, and inability to get away from a job or other responsibilities. A minority have no desire to travel.

Attitudes toward different modes of travel

In the population as a whole more people react favorably to travel by auto than to travel by plane or bus.

Among frequent travelers, however, reactions to air travel are more favorable. A plurality of those who took 16 or more trips last year think of air as the "best way to travel".

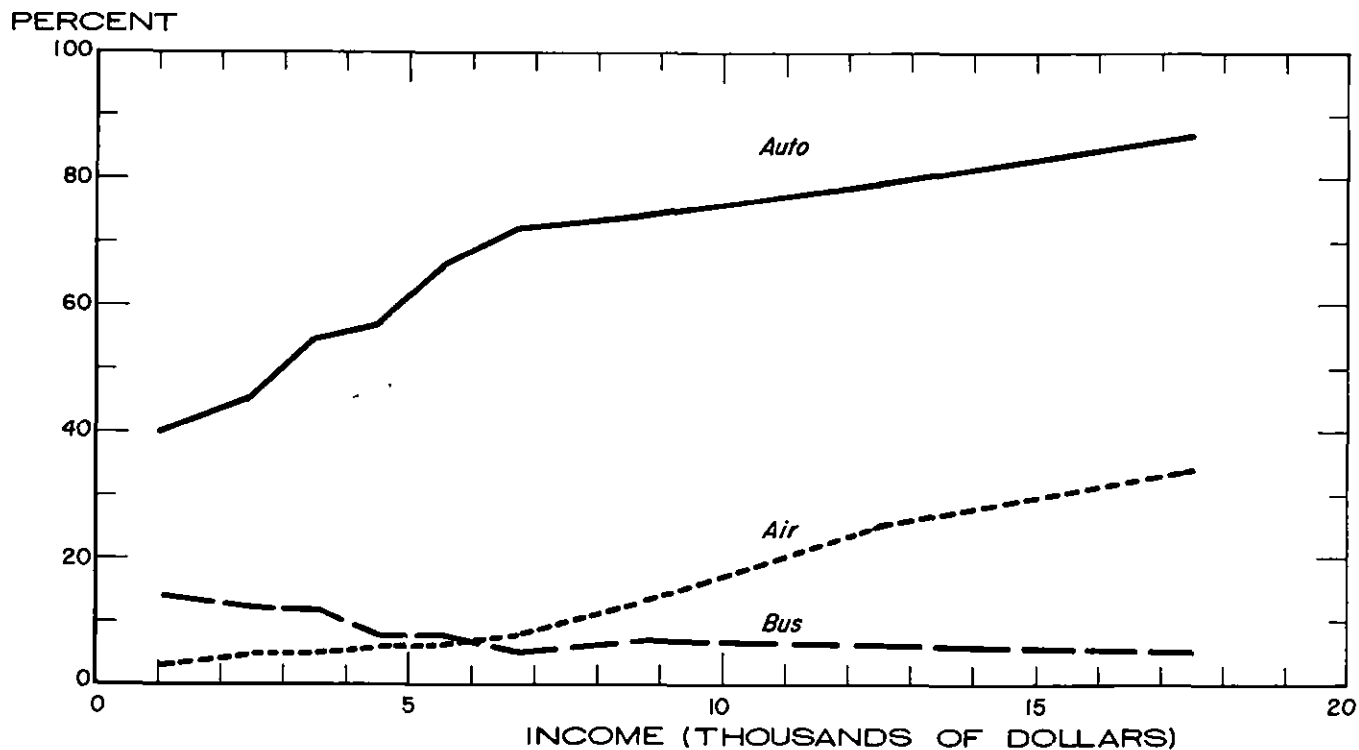
Reactions to bus travel are most favorable among the infrequent travelers and least favorable among those who travel very frequently.

Use of different modes

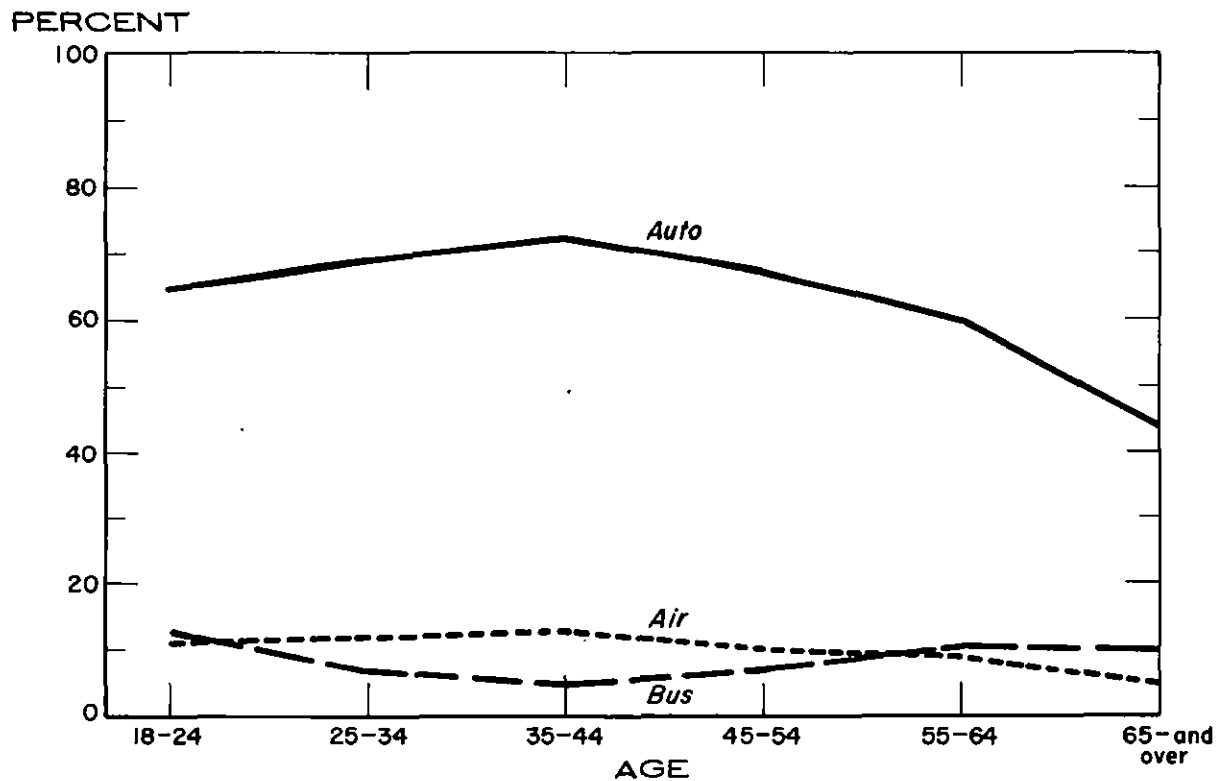
In the year prior to the survey, which corresponds roughly to the year from the middle of 1961 to the middle of 1962, 11 per cent of all adults took at least one air trip to a place 100 miles away; 7 per cent, a rail trip; 8 per cent, a bus trip; and 64 per cent, an auto trip.

Of the people who travel by air on business, 40 per cent take only one business air trip a year, and 16 per cent, only two trips. Six per cent, however, travel very frequently and report 16 or more business air trips a year. There are fewer frequent business travelers by rail and bus.

Percent of Adults at Different Income Levels Who Took a Trip Last Year By Each Mode



Percent of Adults of Different Ages Who Took a Trip Last Year By Each Mode



People who take a non-business auto trip often take several such trips.

High income people are frequent travelers by air, by auto, and by rail. Low income people are more likely than high income people to travel by bus, however.

People over 65 are less likely to travel by auto or by air than the rest of the population. People of this age, however, often travel by rail and by bus.

People who live in the New York area are more likely to take at least one trip in a year by air or rail than those living in other parts of the country. New Yorkers are, if anything, somewhat less likely to travel by bus, but they are much less likely to take an auto trip than other Americans. There are substantial differences in travel habits among people in different parts of the New York area.

Choice of mode of travel

The choice between air and auto for a non-business trip to a place 500 miles or more away depends heavily on how many people were in the party, and, thus, on which method of travel would have been cheapest. It also depends on people's prior experience as air travelers.

Experience as an air traveler

Whether people are experienced air travelers depends both on their age and their income. People in the age range 25-34 already have reached a level of over 44 per cent experienced flyers, the highest for any age group. About two thirds of those with incomes over \$15,000 are experienced air travelers.

Use of rented automobiles

Frequent travelers are much more likely to have rented a car at some time than are infrequent travelers. People who rent cars are also more frequent among the high income groups and the younger age groups. People who

own no car are infrequent renters of cars.

Superhighways

Driving a car on a modern express highway is an experience which has been enjoyed by more men than women and by more young people than old people.

Most people report that they drive 60 to 70 m.p.h. on a superhighway or that they drive at the posted speed limit.

Reactions to speed are determined by age, sex, and income. High income people are less likely to dislike speed than people in the middle or lower income groups.

Air fares and air safety

Reactions to reduced plane fares differ among segments of the population. Those most likely to say that reduced fares would lead them to travel more are those who travel frequently, those already experienced as air travelers, and those already positively disposed toward air travel. The fact that experience is related to reactions to reduced fares suggests that a gradual increase may be taking place in price elasticity as the proportion who are experienced slowly rises.

The people who are best informed about the improvement in air safety are those who are younger, have a high level of education, and themselves have taken at least one air trip.

Knowledge of the work of the federal government on air safety is greatest among those in the upper income groups and upper education levels, and those who have taken at least one air trip.

Package tours

About 6 per cent of the population have ever taken a package tour. Peo-

ple in the upper income groups are more likely than those in the middle or lower income groups to have taken a tour.

Reactions to tours by those who have taken them are favorable. Only a minority of one in ten or less report that they did not like the tour. People liked the freedom from worry and responsibility.

II. Attitudes and Motives

To the student of the travel market there are two basic questions with regard to people's attitudes and motives: what are the motives for travel in general and what are the motives which lead people to choose one method of transportation rather than another? The two sections of this chapter correspond to these two problems.

A. Motives for travel

As the American economy grows and incomes rise in future years, consumers will have extra money to spend. What will they do with it? One way to find out is to ask them directly what they would do if they had some extra money, but answers to questions of this type should not be taken literally. They are likely to contain elements of fantasy or wishful thinking. They are also likely to be influenced by the context in which the question is asked.

The sensitivity of this type of question to its context was brought home to the investigators in this study. The series of questions on travel in the Spring Omnibus Survey appeared on a page that was headed "Travel". The first item was a sentence completion question which read as follows: "If I had an extra month's income to spend I would ...". Many of the interviewers took the heading to indicate that they should introduce this series of questions with some such phrase as: "Now I have some questions to ask you about travel." It is perhaps not surprising, therefore, that 22 per cent of respondents mentioned spending the extra income on trips or vacations.

In a more neutral context in an earlier part of the interview a very similar question had been asked. It followed questions about expenditures for durable goods, housing, recreation, and hobbies, and also vacations and travel. The immediately prior question had to do with expenditures in the

preceding twelve months compared to average expenditures. In this context about 6 per cent of respondents replied that they would spend the money from an extra week's income on a trip or vacation. (Table II-1, second column.)

In the fall wave of interviews the difficulty in questionnaire construction was removed. The results of the sentence completion question concerning an extra month's income from this wave of interviews appear in the first column of Table II-1. In this context the proportion who mention spending the extra income on a trip or vacation is 14 per cent, or twice as many as gave this answer to the direct question in the earlier interview. In general the sentence completion seems to call forth fewer responses concerning such respectable uses of money as saving it and spending it for food. It is interesting that the corresponding increase comes in trips and vacations and not in mentions of cars or durables and not in references to luxuries, liquor, or having a good time.

It would be possible to interpret the difference in results in terms of the difference in time between pay for an extra month and pay for an extra week. But it is possible to save a week's or a month's income with equal ease, and, hence, difficult to explain in terms of the different time periods suggested the difference in the proportion who mention saving the money.

There is much competition for the consumer's dollar. The fact that the proportion who mention a trip or vacation is about as high as that mentioning cars or durable goods, or additions and repairs to the home in response to the direct question seems to indicate the existence of a substantial potential demand for travel. The increase in the proportion who mention trips and vacations when there is more opportunity for spontaneous answers also suggests that people are interested in more travel.

The next sentence respondents were asked to complete was more specific. They were asked to complete a sentence beginning: "If I could pick the way

TABLE II-1

USE OF EXTRA INCOME
(Percentage distribution of respondents)

Use of the extra money	Extra month's income ^a	Extra week's income ^b
<u>Repay debts</u>	<u>12</u>	<u>13</u>
<u>Save it</u>	<u>23</u>	<u>42</u>
<u>Invest it</u>	<u>3</u>	<u>2</u>
<u>Spend it</u>	<u>49</u>	<u>40</u>
On durable goods or a car	8	7
On a trip or vacation	14	6
On hobbies	1	1
On food, necessities	7	12
On additions and repairs to the house	5	6
On luxuries; having a good time; liquor	1	2
Other things; "many things"	4	4
Not ascertained on what	9	2
<u>Give it away (donations, help to relatives)</u>	<u>6</u>	<u>1</u>
Not ascertained	<u>7</u>	<u>2</u>
Total	100	100
Number of respondents	1352	1299

^a Based on the fall, 1962, wave of interviews. The sentence completion question asked was: "If I had an extra month's income to spend I would..."

^b Based on the spring, 1962, wave of interviews. The question was: "Suppose you had some extra money - say, an amount equal to one week's wages or salary (income) - what would you do with this money?"

to spend my vacation this year ... ". This item was repeated from the 1958 Survey and the answers in the two years are compared in Table II-2. There was no change in replies between the years beyond what one would expect from sampling fluctuation. Answers to this question also indicate a substantial potential demand for travel. Only one person in ten says, if he could pick the way to spend his vacation, he would stay home. The largest group of Americans would like to spend their vacations touring the United States or visiting some destination in this country. The states which are most popular as destinations continue to be California and Florida.

What are the motives which lead people to travel? An indirect way of approaching this problem is to ask respondents to characterize people who travel a great deal. The answers are shown in Table II-3. People who travel a lot are much more likely to be described in a favorable than an unfavorable manner. The most frequent positive response is that such people are lucky or happy, an answer which tells us simply that traveling a lot is pleasant but gives few clues why this is so. The response that such people are "wealthy" is more interesting. It indicates a tendency to associate travel with upper socio-economic status, which, of course, is something people value positively. There is also a substantial number of responses to the effect that people who travel are well informed or interesting. There is prestige attached to sophistication, or being "in the know", and travel is evidently seen as a way to attain this type of recognition.

About one adult in ten gave a clear negative characterization of frequent travelers. Most of these responses are of a general character which do not indicate what it is about travel that is valued negatively. The most frequent specific negative response has to do with restlessness. One gets the impression that people feel that excessive travel implies a kind of failure to adjust, an inability to make oneself happy in his home.

TABLE II-2

IF I COULD PICK THE WAY TO SPEND MY VACATION THIS YEAR
(Percentage Distribution of Respondents)

	<u>1962</u>	<u>1958</u>
<u>States specifically mentioned</u>	<u>25</u>	<u>27</u>
California	6	7
Florida	7	7
New York	1	3
Other states	11	10
<u>Destinations in the U.S.</u>	<u>9</u>	<u>7</u>
Tour the West	1	1
Tour the U.S.	1	2
Other destinations in U.S.	7	4
<u>Europe</u>	<u>4</u>	<u>3</u>
<u>Other Continents</u>	<u>1</u>	<u>1</u>
<u>Other Parts of North America</u>	<u>3</u>	<u>4</u>
Canada	2	2
Mexico	1	1
Other	*	1
<u>Islands</u>	<u>4</u>	<u>3</u>
Hawaii	3	2
Other Islands	1	1
<u>Other Comments</u>	<u>49</u>	<u>51</u>
Take a trip by sea	1	1
Take a trip by auto	1	3
Go hunting, fishing, camping	8	9
Go to mountains	3	3
Go to seashore, river, lake	5	6
I'd stay home	11	9
Other answers; I'd travel (no details specified)	20	20
<u>Not ascertained</u>	<u>5</u>	<u>4</u>
Total	100	100
Number of respondents ^a	1299	1456

* Less than one-half of one per cent.

^a Based on the spring, 1962 wave of interviews.

TABLE II-3
PEOPLE WHO TRAVEL A LOT^a
(Percentage distribution of respondents)

<u>People who travel a lot are:</u>	
Lucky; happy	28
Well-informed	11
Interesting	3
Wealthy, can afford to travel	14
Unfortunate; unhappy	2
Restless; nervous	4
Crazy; stupid	3
Other (tourists)	23
Don't know, no answer	<u>12</u>
Total	100
Number of respondents	2651

^a The question was: "People who travel a lot are:..."

A more direct approach to the question of why people do not travel was to ask why "Mr. and Mrs. Brown" don't want to accept an expense free tour of the United States. (Table II-4) This question is specifically designed to bring out reasons why someone might lack the desire to travel. Perhaps the most interesting response is that Mr. and Mrs. Brown don't want to travel because they are not adventurous or are afraid to go far. This response, which implies that travel is felt to be risky or hazardous in some way, is mentioned by only 3 per cent of the population.

There are five obstacles to travel other than expense which are mentioned: poor health, old age, children, inability to get away from a job, and inability to get away for non-job reasons or competing plans. These five obstacles imply that Mr. and Mrs. Brown really want to travel but are unable to do so. They are in contrast both to the idea that travel is risky and to a preference for staying home, which imply that Mr. and Mrs. Brown really don't want to go on a trip. It is instructive that so many more people mention these five obstacles to travel than mention a lack of desire to take trips. It should be kept in mind that the question was phrased in terms of reasons why the "Browns" don't want to go. Here again we have evidence that travel and taking trips are positively valued by most people in this country.

B. Choice of mode of travel

In order to explore people's attitudes toward different modes of travel, respondents were asked to complete sentences characterizing plane, bus, and auto travel. (Table II-5) Looking first at the proportion who give positive rather than negative comments, the automobile is easily the most popular method of transportation. A majority of the population give positive comments about the automobile but there is a substantial minority, 37 per cent, who have negative comments to make about travel by auto. Travel by bus loses the popularity poll. There are more negative comments than positive comments

TABLE II-4

REASONS FOR NOT ACCEPTING AN EXPENSE-FREE TOUR OF THE UNITED STATES^a
(Percentage Distribution of Respondents)

<u>Obstacles to travel other than expense</u>	<u>42</u>
Poor health	8
They are too old	8
They have children whom they don't want either to leave or to take	11
Cannot get away from job	5
Cannot get away for non-job reasons; they have other plans	10
<u>Lack of desire to travel</u>	<u>26</u>
Rather stay home	6
Do not like travel	9
Afraid to go far, not adventurous	3
Crazy, nuts, silly, stupid	8
<u>Other</u>	<u>16</u>
<u>Don't know, no answer, not ascertained</u>	<u>16</u>
Total	100
Number of respondents ^b	1299

^a The question was: "Mr. and Mrs. Brown were offered an expense-free tour of the United States but they don't want to go because..."

^b Based on the spring, 1962 wave of interviews.

TABLE II-5

REACTIONS TO TRIPS BY PLANE, BUS, AND AUTO^a
(Percentage distribution of respondents)

<u>Trips are:</u>	<u>Plane</u>	<u>Bus</u>	<u>Auto</u>
<u>Positive, enthusiastic</u>	<u>30</u>	<u>18</u>	<u>51</u>
Fascinating, educational	1	1	4
Exciting, adventurous	3	*	*
Fun, entertaining	4	2	10
Convenient, easy	1	1	1
Comfortable, relaxing	1	1	1
Nice, pleasant	17	11	31
Other enthusiastic comments	3	2	4
<u>Positive, mildly favorable or without affect</u>	<u>17</u>	<u>19</u>	<u>8</u>
All right, o.k.	4	10	5
Safe(r)	*	2	*
Cheap, practical	*	4	1
Fast, quick	10	*	*
Other mildly positive comments	3	3	2
<u>Negative comments</u>	<u>37</u>	<u>53</u>	<u>37</u>
Dull, tiresome	1	16	10
Dangerous	11	1	4
Expensive	9	3	10
Tiring, fatiguing	*	5	6
Strong general negative comment (horrible, terrible)	2	13	2
Other negative comment	14	15	5
<u>Other (don't know, no answer)</u>	<u>16</u>	<u>10</u>	<u>4</u>
Total	100	100	100
Number of respondents	2651	2651	2651

* Less than one-half of one per cent.

^a The questions were: "Automobile trips are....; plane trips are....; bus trips are....".

about bus travel, and this is the only method of transportation for which the negative out-weigh the positive comments. Travel by plane falls in between, people make both positive and negative comments about it in approximately equal proportions.

What is distinctive about attitudes toward plane travel? There is a small group who think of plane trips as exciting or adventurous, which is a good thing, and there is another group, somewhat larger, who think of plane trips as dangerous, but almost nobody thinks of plane trips as dull or boring. These answers suggest that for many people plane travel still has a new and dramatic character.

What is it that people don't like about bus travel? This type of question is not calculated to bring out detailed complaints. The largest single negative objection is that bus trips are dull or boring. Many people, however, simply gave comments which indicate a negative emotional response without indicating the reason. There is a small group who think of bus trips as very interesting and a considerable group who think of them as pleasant.

The familiarity of Americans with automobile travel is indicated by the frequency of the relaxed comment that such trips are "nice, pleasant". Familiarity may also lead to boredom. Ten per cent of the respondents refer to auto travel as dull. There are also negative comments about fatigue, danger, and expense.

Are people's attitudes toward these three different modes of transportation different depending on how frequently they travel? One might reasonably expect such differences, partly because of differences in socio-economic status associated with travel, and partly because experience with travel modes may influence attitudes directly. As shown in Table II-6, there are substantial differences in attitudes between infrequent and frequent travelers. Attitudes toward air travel are more unfavorable than favorable among those who take less than five trips a year. Among more frequent tra-

TABLE II-6

REACTIONS TO TRIPS BY PLANE, BUS, AND AUTO BY FREQUENCY OF TRAVEL LAST YEAR
(Percentage distribution of respondents)

<u>Type of reaction</u>	<u>All respondents^a</u>	<u>Number of trips in last year</u>				
		<u>No trips</u>	<u>1 trip</u>	<u>2-4 trips</u>	<u>5-15 trips</u>	<u>16 or more trips</u>
<u>Plane trips</u>						
Positive	30	23	27	30	38	40
Mildly positive	17	13	18	18	21	24
Negative	37	45	38	37	26	26
Other (no answer, don't know)	<u>16</u>	<u>19</u>	<u>17</u>	<u>15</u>	<u>15</u>	<u>10</u>
Total	100	100	100	100	100	100
<u>Bus trips</u>						
Positive	18	21	21	18	15	9
Mildly positive	19	24	22	16	14	14
Negative	53	44	47	57	62	66
Other (no answer, don't know)	<u>10</u>	<u>11</u>	<u>10</u>	<u>9</u>	<u>9</u>	<u>11</u>
Total	100	100	100	100	100	100
<u>Auto trips</u>						
Positive	51	45	52	57	54	50
Mildly positive	8	9	7	8	6	10
Negative	37	39	36	33	38	36
Other (no answer, don't know)	<u>4</u>	<u>7</u>	<u>5</u>	<u>2</u>	<u>2</u>	<u>4</u>
Total	100	100	100	100	100	100
Number of respondents	2651	783	473	625	525	182

^a Includes 63 respondents for whom number of trips was not ascertained.

velers, positive comments about air are more frequent than negative.

For bus travel the tendency is in the reverse direction. Negative comments about the bus are more frequent among those who travel often than among those who travel only occasionally or not at all.

For auto travel the differences in attitude are not large. The frequency of positive and negative comments is about the same for those who took no trips as for those who took many trips. Favorable comments about auto travel seem to be most frequent, and unfavorable comments least frequent, among those who take two to four trips a year.

Another way of comparing different modes of travel is by looking at answers to the questions about the "best way to travel". (Table II-7) Once again the auto leads the list, with 40 per cent reporting that the best way to travel is by car. It is perhaps surprising that this proportion is not higher since the automobile is responsible for such a very large proportion of actual travel. The airplane comes next, followed by the train, with only 5 per cent mentioning bus travel.

These responses are shown separately by frequency of travel. The results are consistent with those just reported in Table II-6. The frequent travelers are more likely than the infrequent travelers to say that the best way to travel is by plane. Frequent travelers are less likely to mention either rail or bus. Mention of auto as the best way to travel is most likely among those who take a few trips. These results are interesting in that they may suggest which population groups offer the best opportunity to expand travel by each mode. They should be interpreted together with other data, however, such as the relation shown in the following tables.

The next four tables may be considered jointly. Table II-8 through II-11 show reactions to auto trips in relation to automobile ownership, family income, use of auto last year, and the "best way to travel". For the population as a whole, half respond positively to auto trips, 8 per cent respond

TABLE II-7

BEST WAY TO TRAVEL BY FREQUENCY OF TRAVEL LAST YEAR^a
(Percentage distribution of respondents)

<u>Best way to travel</u>	<u>All respondents^b</u>	<u>Number of trips in last year</u>				
		<u>No trips</u>	<u>1 trip</u>	<u>2-4 trips</u>	<u>5-15 trips</u>	<u>16 or more trips</u>
Air	28	20	26	30	35	43
Rail	14	20	11	13	9	8
Bus	5	9	6	3	2	1
Ship	1	2	2	*	1	2
Auto	40	35	44	44	42	35
Other	2	5	3	2	1	3
Don't know, not ascertained	<u>10</u>	<u>9</u>	<u>8</u>	<u>8</u>	<u>10</u>	<u>8</u>
Total	100	100	100	100	100	100
Number of respondents	2651	783	473	625	525	182

* Less than one-half of one per cent.

^a The question was: "The best way to travel is . . ."

^b Includes 63 respondents for whom number of trips was not ascertained.

TABLE II-8

REACTIONS TO AUTO TRIPS BY CAR OWNERSHIP
(Percentage distribution of respondents)

<u>Reaction to auto trips</u>	<u>All respondents</u>	<u>Number of cars owned</u>			
		<u>None</u>	<u>One</u>	<u>Two</u>	<u>Three or more</u>
Positive	51	48	53	51	53
Mildly positive	8	9	7	7	7
Negative	37	35	36	38	38
Other (don't know, no answer)	<u>4</u>	<u>8</u>	<u>4</u>	<u>4</u>	<u>2</u>
Total	100	100	100	100	100
Number of respondents	2651	562	1519	515	55

TABLE II-9
REACTIONS TO AUTO TRIPS BY FAMILY INCOME
(Percentage distribution of respondents)

Reaction	All respondents ^a	Family income								
		under \$2000	\$2000 -2999	\$3000 -3999	\$4000 -4999	\$5000 -5999	\$6000 -7499	\$7500 -9999	\$10,000 -14,999	\$15,000 or more
Positive	51	45	53	48	54	50	58	49	52	52
Mildly positive	8	10	9	4	7	8	6	8	9	7
Negative	37	35	32	41	36	38	32	42	38	39
Other (don't know, no answer)	4	10	6	7	3	4	4	1	1	2
Total	100	100	100	100	100	100	100	100	100	100
Number of respondents	2651	364	222	225	288	321	386	348	262	120

^a Includes 115 respondents for whom income was not ascertained.

TABLE II-10
REACTIONS TO AUTO TRIPS BY USE OF AUTO LAST YEAR
(Percentage distribution of respondents)

<u>Use of auto</u>	<u>All respondents^a</u>	<u>Reactions</u>		
		<u>Positive</u>	<u>Mildly positive</u>	<u>Negative</u>
Business trips only	4	2	5	5
Both business and non-business trips	8	8	8	9
Non-business trips only	53	60	47	49
No auto trips	35	30	40	37
Total	100	100	100	100
Number of respondents	2651	1348	207	976

^a Includes 120 respondents for whom reactions were not ascertained.

TABLE II-11

REACTIONS TO AUTO TRIPS BY BEST WAY TO TRAVEL
(Percentage distribution of respondents)

<u>Best way to travel</u>	<u>All respondents</u>	<u>Reactions to auto trips</u>			
		<u>Positive</u>	<u>Mildly positive</u>	<u>Negative</u>	<u>No answer, don't know</u>
Air	28	24	27	36	14
Rail	14	11	15	18	14
Bus	5	3	5	7	6
Ship	1	1	2	2	2
Auto	40	51	37	26	31
Other	2	1	2	3	2
Not ascertained	<u>10</u>	<u>9</u>	<u>12</u>	<u>8</u>	<u>31</u>
Total	100	100	100	100	100
Number of respondents	2651	1348	207	978	118

with a mildly positive comment, and about 37 per cent give a negative response. Since the great majority of all trips are known to be taken by automobile, it is perhaps more surprising that 37 per cent give a negative response to auto trips than it is that the majority give a positive reaction. There is little difference between those who own a car and those who do not own a car in reactions to auto trips. The principal difference is that those who do not own a car are most likely to give a "don't know" answer.

It is also notable that there is little difference from one income group to the next in reaction to auto trips. The most pronounced trend in the table is the regular decline in the "don't know" response with rising income, a decline which indicates merely that people of the upper income groups are more likely to have some experience with automobile travel and more likely, therefore, to be able to react to it.

People who responded positively to auto trips are somewhat more likely to have taken a non-business auto trip last year than those who gave a mildly positive or negative response. On the other hand, if anything, negative responses are associated with use of automobile for business purposes. This last result is consistent with the earlier finding that those who travel very frequently are somewhat less positively disposed toward the automobile than infrequent travelers.

Those whose reactions to auto trips were positive are also more likely to say that the auto is the best way to travel than those whose reactions to auto trips were negative. This finding indicates the consistency of the two attitudinal responses. Those who respond negatively to auto travel tend to think that the best way to travel is by common carrier. As was previously shown, there is a substantial minority of people at every income level who respond negatively to auto trips. The hypothesis suggested by these findings is that the auto does not dominate the travel market simply because of an enormous enthusiasm for automobile travel on the part of everyone in the population. Other forces must be at work.

The next three tables, Table II-12 through II-14, show the reactions of respondents to plane trips by family income, by use of air last year, and by responses to the sentence completion item concerning the best way to travel. Positive responses to plane trips are found more frequently at the upper income levels than at the lower income levels. Similarly, the proportion giving a negative comment about air travel falls from about half for those with incomes under \$2000 to about a quarter for those with incomes of \$15,000 or more. There is also an understandable tendency for the don't know responses to fall as income increases.

Consistent with the relation between income and reactions to air travel is the relation between use of air last year and reactions to air travel. Of those who gave a positive reaction to plane trips, 21 per cent took an air trip last year, compared to only 3 per cent of those who gave a negative response. This relation between reactions to plane trips and use of air is much more impressive than the rather modest relationship shown in Table II-10 between reactions to auto trips and use of auto. It is tempting but perhaps premature to infer that people travel by air because they have positive feelings about air travel. More cautiously, it may be said that there does seem to be a relationship between positive feelings toward air travel and using air but it is not certain whether the attitude is a cause or an effect of the travel behavior.

The same tendency for people to feel strongly about air travel is suggested by the relationship between reactions to plane trips and the way respondents filled out the sentence completion question concerning the best way to travel. Of those who reacted positively to plane trips, 56 per cent stated also that the best way to travel is by air; of those who reacted negatively to the item about plane trips, only 11 per cent said that the best way to travel is by air (Table II-14). These two responses seem to be much more closely associated than the corresponding pair of responses with respect to auto trips shown in Table II-11.

TABLE II-12

REACTIONS TO PLANE TRIPS BY FAMILY INCOME
(Percentage distribution of respondents)

Reactions	All respondents ^a	Family income								
		under \$2000	\$2000 -2999	\$3000 -3999	\$4000 -4999	\$5000 -5999	\$6000 -7499	\$7500 -9999	\$10,000 -14,999	\$15,000 or more
Positive	30	21	23	30	28	24	28	43	37	44
Mildly positive	17	10	17	16	16	19	19	19	21	24
Negative	37	51	43	35	39	37	36	28	29	25
Other (don't know, no answer)	16	18	17	19	17	20	17	10	13	7
Total	100	100	100	100	100	100	100	100	100	100
Number of respondents	2651	364	222	225	288	321	386	348	262	120

^a Includes 115 respondents for whom income was not ascertained.

TABLE II-13

REACTIONS TO PLANE TRIPS BY USE OF AIR LAST YEAR
(Percentage distribution of respondents)

<u>Use of air</u>	<u>All respondents</u>	<u>Reactions</u>			
		<u>Positive</u>	<u>Mildly positive</u>	<u>Negative</u>	<u>No answer, don't know</u>
Business trips only	3	5	6	1	*
Both business and non-business trips	1	2	2	*	*
Non-business trips only	7	14	10	2	2
No air trips	<u>89</u>	<u>79</u>	<u>82</u>	<u>97</u>	<u>98</u>
Total	100	100	100	100	100
Number of respondents	2651	794	461	966	430

* Less than one-half of one per cent.

TABLE II-14

REACTIONS TO PLANE TRIPS BY BEST WAY TO TRAVEL
(Percentage distribution of respondents)

Best way to travel	All respondents	Reactions to plane trips			No answer, don't know
		Positive	Mildly positive	Negative	
Air	28	56	31	11	13
Rail	14	6	12	21	16
Bus	5	2	3	9	5
Ship	1	1	1	2	1
Auto	40	25	38	47	49
Other	2	2	2	2	1
Not ascertained	10	8	13	8	15
Total	100	100	100	100	100
Number of respondents	2651	794	461	966	430

A final set of tables shows reactions to bus travel by family income, use of bus last year, and the best way to travel, in Tables II-15 through II-17. Reactions to bus travel, like reactions to plane trips, are correlated with family income, but the relationship is inverted. The higher the family income the smaller the proportion who react positively to bus travel and the larger the proportion who react negatively. For those with incomes under \$2000, positive reactions are almost as frequent as negative reactions to the sentence completion item on bus travel. But at the other end of the income distribution, of those with incomes with \$15,000 or more, negative responses are about ten times as frequent as positive responses.

It should be noted, however, that reactions to bus travel are not very highly correlated with the use of bus. Of those who responded positively to this item, 14 per cent took a bus trip last year, while of those who responded negatively, 9 per cent took a bus trip. There does seem to be some relationship here, but it is much more like the relationship between attitudes toward auto travel and the use of auto than it is like the relationship between the attitudes toward air travel and use of air. It may be that attitudes toward bus travel are less clearly formulated and less strongly held than attitudes toward air travel.

Relatively few people think of the bus as the "best way to travel", but there is a relationship, as might be anticipated, between reacting positively to bus travel and holding this opinion. Of those who respond positively to the item on bus travel 13 per cent mention the bus as the best way to travel, while of those who respond negatively to bus trips, only 1 per cent mention bus as the best way to travel.

TABLE II-15

REACTIONS TO BUS TRAVEL BY FAMILY INCOME
(Percentage distribution of respondents)

Reactions	All respondents ^a	Family income								
		under \$2000	\$2000 -2999	\$3000 -3999	\$4000 -4999	\$5000 -5999	\$6000 -7499	\$7500 -9999	\$10,000 -14,999	\$15,000 or more
Positive	18	27	26	27	20	18	15	13	9	7
Mildly positive	19	27	24	21	24	18	17	13	12	14
Negative	53	31	41	40	50	52	60	66	68	70
Other (don't know, no answer)	10	15	9	12	6	12	8	8	11	9
Total	100	100	100	100	100	100	100	100	100	100
Number of respondents	2651	364	222	225	288	321	386	348	262	120

^a Includes 115 respondents for whom income was not ascertained.

TABLE II-16

REACTIONS TO BUS TRAVEL BY USE OF BUS LAST YEAR
(Percentage distribution of respondents)

<u>Use of bus</u>	<u>All respondents</u>	<u>Reactions</u>			<u>No answer, don't know</u>
		<u>Positive</u>	<u>Mildly positive</u>	<u>Negative</u>	
Business trips only	1	1	*	1	*
Both business and non-business trips	*	1	*	*	1
Non-business trips only	8	12	10	8	5
No bus trips	91	86	90	91	94
Total	100	100	100	100	100
Number of respondents	2651	486	510	1380	275

* Less than one-half of one per cent.

TABLE II-17
REACTIONS TO BUS TRAVEL BY BEST WAY TO TRAVEL
(Percentage distribution of respondents)

<u>Best way to travel</u>	<u>All respondents</u>	<u>Reactions to bus trips</u>			
		<u>Positive</u>	<u>Mildly positive</u>	<u>Negative</u>	<u>No answer, don't know</u>
Air	28	17	20	37	21
Rail	14	19	18	11	11
Bus	5	13	9	1	4
Ship	1	1	1	1	2
Auto	40	40	40	39	41
Other	2	2	3	2	2
Not ascertained	<u>10</u>	<u>8</u>	<u>9</u>	<u>9</u>	<u>19</u>
Total	100	100	100	100	100
Number of respondents	2651	486	510	1380	275

III. Who Uses the Different Modes of Transportation?

What proportion of the adult population of this country take a trip during a twelve month period by each of the four principal modes of transportation? What proportion use each mode for business reasons, for non-business reasons, and for both business and non-business reasons? This chapter is devoted to the answers to these questions. Estimates are presented showing breakdowns of the adult population by the following characteristics: prior experience as an air traveler, family income, education, occupation, age, family life cycle, size of place of residence, distance from center of nearest metropolitan area, type of neighborhood (location and density of neighborhood), region, whether lives in New York area, and automobile ownership.

A. Proportion traveling by each mode

The proportion of the adult population taking at least one air trip was 10.7 per cent for the twelve months ending at the time of interview. This proportion has increased steadily since 1955 as is shown by the following tabulation:

Proportion of Adults Traveling by Air

<u>Year of Survey</u>	<u>Per cent of Adults Traveling by Air</u>
1955	6.7
1956	7.2
1957	8.8
1958	9.0
1960	9.6
1962	10.7

The per cent of adults taking at least one rail trip was 7.4 per cent. This proportion is smaller than found in earlier surveys as shown by the

following tabulation:

Proportion of Adults Traveling by Rail

<u>Year of Survey</u>	<u>Per cent of Adults Traveling by Rail</u>
1955	10.5
1956	9.1
1957	11.2
1960	8.7
1962	7.4

During the year ending in the month of the survey 8.5 per cent of the adult population took at least one bus trip to a place 100 miles or more away as shown by the following tabulation:

Proportion of Adults Traveling by Bus

<u>Year of Survey</u>	<u>Per cent of Adults Traveling by Bus</u>
1955	6.6
1956	6.1
1957	9.6
1960	7.1
1962	8.5

Since 1955, thus, the per cent of the population taking a trip to a place 100 miles or more away has increased.

The proportion of the adult population who took at least one automobile trip was 64.0 per cent for the year. This proportion also has increased since 1955 as is shown by the following tabulation:

Proportion of Adults Traveling by Auto

<u>Year of Survey</u>	<u>Per cent of Adults Traveling by Auto</u>
1955	57.2
1956	48.2
1957	61.0
1962	64.0

The proportions taking business trips only, taking both business and non-business trips, and taking only non-business trips are shown in Table III-1.

B. Frequency of travel

A frequency distribution showing the number of trips taken over a twelve month period is shown in Table III-2 for those who took one or more trips by each of the four modes. Those who took business trips and those who took non-business trips are shown separately. Of those who took at least one business trip by air to a place 100 miles or more away, for example, 40 per cent took one such trip, 16 per cent took two such trips, and, at the other extreme, 3 per cent reported 30 or more business trips by air. It is unlikely that people can remember exactly large numbers of trips, and, accordingly, estimates in the upper range of the number of trips should be treated with caution.

There are a few people who take very large numbers of trips by air and by auto on business. Those who travel by rail or bus on business are more likely to take only one or two business trips by these modes. About two-thirds of those who take a non-business trip by one of the common carriers take only one such trip by that carrier. On the other hand those who take non-business trips by auto are likely to take several such trips. As previously indicated about 6 out of 10 adults took at least one non-business auto trip during the year. Within this group 14 per cent report that they took more than 10 non-business auto trips to places 100 miles or more away in the course of a twelve month period.

C. Experience as an air traveler

Previous work has shown repeatedly that there is a powerful and persistent relationship between prior experience as an air traveler and whether a person will take one or more air trips during a subsequent period. This relationship is confirmed again by Table III-3 where it is shown that of those

TABLE III-1

USE OF AIR, RAIL, BUS AND AUTO LAST YEAR
(Percentage distribution of adults)

	<u>Air</u>	<u>Rail</u>	<u>Bus</u>	<u>Auto</u>
<u>Took one or more trips in the last year</u>	<u>10.7</u>	<u>7.4</u>	<u>8.5</u>	<u>64.0</u>
Business trips only	3.2	1.2	0.6	3.2
Business and non-business trips	0.8	0.2	0.3	7.1
Non-business trips only	6.7	6.0	7.6	53.7
<u>Did not take one or more trips in the last year</u>	<u>89.3</u>	<u>92.6</u>	<u>91.5</u>	<u>36.0</u>
Total	100.0	100.0	100.0	100.0
Number of adults	5329	5329	5329	5329

TABLE III-2

FREQUENCY OF TRAVEL BY EACH MODE LAST YEAR WITH
BUSINESS AND NON-BUSINESS TRIPS SHOWN SEPARATELY
(Percentage distribution of adults who took trips last year)

<u>Business trips</u>		<u>Mode used</u>			
<u>Number of trips</u>	<u>Air</u>	<u>Rail</u>	<u>Bus</u>	<u>Auto</u>	
1	40	60	65	31	
2	16	12	15	14	
3	9	8	6	8	
4	7	4	*	5	
5	3	*	*	5	
6	4	4	6	4	
7	*	*	*	1	
8	2	1	*	3	
9	2	*	*	1	
10-15	8	6	*	10	
16-29	3	*	*	5	
30 or more	3	*	2	8	
Not ascertained	3	5	6	5	
Total	100	100	100	100	
Number of adults	215	77	47	569	

<u>Non-business trips</u>		<u>Mode used</u>			
<u>Number of trips</u>	<u>Air</u>	<u>Rail</u>	<u>Bus</u>	<u>Auto</u>	
1	65	70	65	31	
2	14	15	13	15	
3	6	4	6	13	
4	4	2	5	8	
5	1	1	1	6	
6	2	2	2	5	
7	*	*	*	2	
8	*	1	1	2	
9	*	*	*	1	
10-15	1	1	3	9	
16-29	*	*	*	3	
30 or more	*	*	*	2	
Not ascertained	7	4	4	3	
Total	100	100	100	100	
Number of adults	397	336	428	3250	

* Less than one-half of one per cent.

TABLE III-3

USE OF AIR, RAIL, BUS AND AUTO BY EXPERIENCE AS AN AIR TRAVELER
(Percentage distribution of adults)

<u>Use of air</u>	<u>All adults^a</u>	<u>Experience as an air traveler</u>	
		<u>Have taken an air trip</u>	<u>Have never taken an air trip</u>
<u>Took one or more air trips last year</u>	<u>11</u>	<u>26</u>	<u>3</u>
For business reasons	3	8	1
For non-business reasons	7	16	2
For both business and non-business reasons	1	2	*
<u>Did not take any air trips last year</u>	<u>89</u>	<u>74</u>	<u>97</u>
Total	100	100	100
 <u>Use of rail</u>			
<u>Took one or more rail trips last year</u>	<u>7</u>	<u>12</u>	<u>6</u>
For business reasons	1	3	1
For non-business reasons	6	8	5
For both business and non-business reasons	*	1	*
<u>Did not take any rail trips last year</u>	<u>93</u>	<u>88</u>	<u>94</u>
Total	100	100	100

TABLE III-3 continued - USE OF AIR, RAIL, BUS AND AUTO BY EXPERIENCE AS AN AIR TRAVELER

<u>Use of bus</u>	<u>All adults^a</u>	<u>Experience as an air traveler</u>	
		<u>Have taken an air trip</u>	<u>Have never taken an air trip</u>
<u>Took one or more bus trips last year</u>	<u>9</u>	<u>10</u>	<u>8</u>
For business reasons	1	1	1
For non-business reasons	8	8	7
For both business and non-business reasons	*	1	*
<u>Did not take any bus trips last year</u>	<u>91</u>	<u>90</u>	<u>92</u>
Total	100	100	100
<u>Use of auto</u>			
<u>Took one or more auto trips last year</u>	<u>64</u>	<u>75</u>	<u>58</u>
For business reasons	3	5	3
For non-business reasons	54	57	51
For both business and non-business reasons	7	13	4
<u>Did not take any auto trips last year</u>	<u>36</u>	<u>25</u>	<u>42</u>
Total	100	100	100
Number of adults	5329	1676	3586

* Less than one-half of one per cent.

^a Includes 67 adults for whom experience was not ascertained.

who had taken an air trip at the beginning of the year 26 per cent took one or more trips during the year, while of those who had never taken an air trip, only 3 per cent took such a trip.

People with experience as air travelers are also more likely than the general population to use the other methods of transportation. The differences are not as large as with respect to air travel, as might be expected, but it remains true that experienced air travelers were twice as likely to take one or more rail trips as those who did not have experience as air travelers. For bus and auto the difference is much smaller. These results suggest that those who are experienced air travelers have a general tendency to travel more than the rest of the population. A possible interpretation of the finding is that some people have a persistent tendency to travel frequently and that they, therefore, become experienced air travelers. It may also be true that experience with air travel leads to a more favorable general attitude toward travel.

D. Family income

The frequency of travel by all modes combined in the year prior to interview is shown by family income in Table III-4. The results show a regular decrease in the proportion who took no trips at all as family income increases. The decrease is from 53 per cent of those under \$2000 to 9 per cent of those with income of \$15,000 or more. Conversely, the proportion who took sixteen or more trips rises from 2 per cent of those with income under \$2000 to 16 per cent of those in the income group \$15,000 or more. Not only are high income people more likely to take at least one trip, but they are likely to take repeated trips.

The proportion of adults who took one or more trips last year by each mode for business reasons, non-business reasons, or both kinds of reasons appears in Table III-5. The proportion who took an air trip rises regularly with income, increasing sharply over an income of about \$10,000 a year. The

TABLE III-4

FREQUENCY OF TRAVEL BY ALL MODES LAST YEAR BY FAMILY INCOME
(Percentage distribution of adults)

Number of trips	All adults ^a	Income groups								
		under \$2000	\$2000 -2999	\$3000 -3999	\$4000 -4999	\$5000 -5999	\$6000 -7499	\$7500 -9999	\$10,000 -14,999	\$15,000 or more
No trips	31	53	47	41	40	30	23	21	16	9
1 trip	18	19	17	19	19	20	20	17	14	8
2-4 trips	23	16	18	22	21	27	25	27	24	30
5-15 trips	19	8	13	12	13	16	20	26	31	32
16 or more trips	6	2	3	3	4	5	8	7	12	16
Not ascertained	3	2	2	3	3	2	4	2	3	5
Total	100	100	100	100	100	100	100	100	100	100
Number of adults	5329	573	407	438	566	662	800	764	600	284

^a Includes 235 adults for whom income was not ascertained.

TABLE III-5

USE OF AIR, RAIL, BUS AND AUTO BY FAMILY INCOME
(Percentage distribution of adults)

Use of air	All adults ^a	Family income								
		under \$2000	\$2000 -2999	\$3000 -3999	\$4000 -4999	\$5000 -5999	\$6000 -7499	\$7500 -9999	\$10,000 -14,999	\$15,000 or over
<u>Took one or more air trips last year</u>	<u>11</u>	<u>3</u>	<u>5</u>	<u>5</u>	<u>6</u>	<u>6</u>	<u>8</u>	<u>13</u>	<u>25</u>	<u>34</u>
For business reasons	3	*	1	*	2	1	2	6	9	8
For non-business reasons	7	3	4	5	3	5	6	6	14	20
For both business and non-business reasons	1	*	*	*	1	*	*	1	2	6
<u>Did not take an air trip last year</u>	<u>89</u>	<u>97</u>	<u>95</u>	<u>95</u>	<u>94</u>	<u>94</u>	<u>92</u>	<u>87</u>	<u>75</u>	<u>66</u>
Total	100	100	100	100	100	100	100	100	100	100
<u>Use of rail</u>										
<u>Took one or more rail trips last year</u>	<u>7</u>	<u>5</u>	<u>8</u>	<u>8</u>	<u>4</u>	<u>6</u>	<u>6</u>	<u>8</u>	<u>11</u>	<u>20</u>
For business reasons	1	*	1	*	1	1	1	1	2	7
For non-business reasons	6	5	7	8	3	5	5	7	8	13
For both business and non-business reasons	*	*	*	*	*	*	*	*	1	*
<u>Did not take a rail trip last year</u>	<u>93</u>	<u>95</u>	<u>92</u>	<u>92</u>	<u>96</u>	<u>94</u>	<u>94</u>	<u>92</u>	<u>89</u>	<u>80</u>
Total	100	100	100	100	100	100	100	100	100	100

TABLE III-5 continued - USE OF AIR, RAIL, BUS AND AUTO BY FAMILY INCOME

Use of bus	All adults ^a	Family income								
		under \$2000	\$2000 -2999	\$3000 -3999	\$4000 -4999	\$5000 -5999	\$6000 -7499	\$7500 -9999	\$10,000 -14,999	\$15,000 or over
<u>Took one or more bus trips last year</u>	<u>9</u>	<u>14</u>	<u>12</u>	<u>12</u>	<u>8</u>	<u>8</u>	<u>5</u>	<u>7</u>	<u>6</u>	<u>5</u>
For business reasons	1	1	1	1	*	1	*	*	1	1
For non-business reasons	8	13	11	11	7	7	5	7	5	4
For both business and non-business reasons	*	*	*	*	1	*	*	*	*	*
<u>Did not take a bus trip last year</u>	<u>91</u>	<u>86</u>	<u>88</u>	<u>88</u>	<u>92</u>	<u>92</u>	<u>95</u>	<u>93</u>	<u>94</u>	<u>95</u>
Total	100	100	100	100	100	100	100	100	100	100
<u>Use of auto</u>										
<u>Took one or more auto trips last year</u>	<u>64</u>	<u>40</u>	<u>46</u>	<u>55</u>	<u>57</u>	<u>66</u>	<u>72</u>	<u>74</u>	<u>79</u>	<u>87</u>
For business reasons	3	2	2	5	3	3	3	3	4	5
For non-business reasons	54	35	41	46	49	55	61	62	65	67
For both business and non-business reasons	7	3	3	4	5	8	8	9	10	15
<u>Did not take an auto trip last year</u>	<u>36</u>	<u>60</u>	<u>54</u>	<u>45</u>	<u>43</u>	<u>34</u>	<u>28</u>	<u>26</u>	<u>21</u>	<u>13</u>
Total	100	100	100	100	100	100	100	100	100	100
Number of adults	5329	573	407	438	566	662	800	764	600	284

* Less than one-half of one per cent.

^a Includes 235 adults for whom income was not ascertained.

use of rail reaches two peaks, one in the part of the income distribution between \$2000 and \$4000 and one at the upper end of the income distribution. The proportion who took a bus trip is highest at the lower end of the income distribution, below an income of about \$4000. Comparison with the results of earlier surveys suggests that in that income range the proportion using bus has been increasing in the last few years. The proportion taking one or more auto trips in the course of a year tends to rise with income.

E. Education

There is, of course, a correlation between education and family income. It is not surprising, therefore, to find that the relation between a person's education and his use of the four modes is in general the same in shape as the relation between family income and use of the four modes. An exception to this generalization must be made for bus travel. The proportion of those at each education level who took a bus trip is almost identical. If anything those with higher education are more likely to travel by bus. (Table III-7) As noted above people at the lower income levels are more likely to travel by bus than at the higher income levels.

The data suggest, and other investigations confirm, that education does have an effect on travel independent of and incremental to the effect of family income. For example, compare the frequency of travel of those who have a college degree with the travel of those with an income of \$15,000 or more. Of those with a college degree, 15 per cent take sixteen or more trips a year which is almost exactly the same as 16 per cent of those with incomes of \$15,000 or more who take that many trips a year. The average income of people with college degrees, however, is less than \$15,000.

F. Occupation

The proportion using each of the four modes by different occupation groups is shown in Table III-8. Those in the high status occupations are

TABLE III-6

FREQUENCY OF TRAVEL LAST YEAR BY EDUCATION OF ADULT
(Percentage distribution of adults)

Number of trips	All adults ^a	Education of adult						
		None, grade school (1-8)	Some high school	Some high school + non-academic	Completed high school	Completed high school + non-academic	Some college	Have college degree
No trips	31	49	38	20	26	18	18	12
1 trip	18	21	18	19	21	16	13	11
2 - 4 trips	23	18	24	25	27	29	25	25
5 - 15 trips	19	8	14	26	18	26	29	34
16 or more trips	6	2	3	8	6	9	11	15
Not ascertained	<u>3</u>	<u>2</u>	<u>3</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>4</u>	<u>3</u>
Total	100	100	100	100	100	100	100	100
Number of adults	5328	1409	809	203	1149	444	700	545

^a Includes 69 adults for whom education was not ascertained.

TABLE III-7

USE OF AIR, RAIL, BUS AND AUTO BY EDUCATION OF THIS ADULT
(Percentage distribution of adults)

Use of air	All adults ^a	Education of adult						
		None, grade school (1-8)	Some high school	Some high school + non- academic	Completed high school	Completed high school + non- academic	Some college	Have college degree
<u>Took one or more air trips last year</u>	<u>10.7</u>	<u>2</u>	<u>4</u>	<u>7</u>	<u>9</u>	<u>11</u>	<u>21</u>	<u>35</u>
For business reasons	3.2	*	1	2	2	1	6	14
For non-business reasons	6.7	2	3	5	7	9	13	16
Both for business and non- business reasons	0.8	*	*	*	*	1	2	5
<u>Did not take an air trip last year</u>	<u>89.3</u>	<u>98</u>	<u>96</u>	<u>93</u>	<u>91</u>	<u>89</u>	<u>79</u>	<u>65</u>
Total	100.0	100	100	100	100	100	100	100
<u>Use of rail</u>								
<u>Took one or more rail trips last year</u>	<u>7.4</u>	<u>4</u>	<u>5</u>	<u>10</u>	<u>7</u>	<u>6</u>	<u>12</u>	<u>15</u>
For business reasons	1.2	*	*	1	1	1	2	5
For non-business reasons	6.0	4	5	9	6	5	10	8
Both for business and non- business reasons	0.2	*	*	*	*	*	*	2
<u>Did not take a rail trip last year</u>	<u>92.6</u>	<u>96</u>	<u>95</u>	<u>90</u>	<u>93</u>	<u>94</u>	<u>88</u>	<u>85</u>
Total	100.0	100	100	100	100	100	100	100

TABLE III-7 continued - USE OF AIR, RAIL, BUS AND AUTO BY EDUCATION OF THIS ADULT

Use of bus	All adults ^a	Education of adult						
		None, grade school (1-8)	Some high school	Some high school + non-academic	Completed high school	Completed high school + non-academic	Some college	Have college degree
<u>Took one or more bus trips last year</u>	<u>8.5</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>8</u>	<u>11</u>	<u>9</u>	<u>9</u>
For business reasons	0.6	*	1	1	1	1	*	1
For non-business reasons	7.6	8	7	7	7	9	9	7
Both for business and non-business reasons	0.3	*	*	*	*	1	*	1
<u>Did not take a bus trip last year</u>	<u>91.5</u>	<u>92</u>	<u>92</u>	<u>92</u>	<u>92</u>	<u>89</u>	<u>91</u>	<u>91</u>
Total	100.0	100	100	100	100	100	100	100
<u>Use of auto</u>								
<u>Took one or more auto trips last year</u>	<u>63.8</u>	<u>45</u>	<u>58</u>	<u>76</u>	<u>69</u>	<u>78</u>	<u>77</u>	<u>83</u>
For business reasons	3.2	2	2	5	3	3	5	6
For non-business reasons	53.5	41	53	64	62	64	59	56
Both for business and non-business reasons	7.1	2	3	7	4	11	13	21
<u>Did not take an auto trip last year</u>	<u>36.2</u>	<u>55</u>	<u>42</u>	<u>24</u>	<u>31</u>	<u>22</u>	<u>23</u>	<u>17</u>
Total	100.0	100	100	100	100	100	100	100
Number of adults	5328	1408	809	203	1149	444	700	545

* Less than one-half of one per cent.

^a Includes 70 adults for whom education was not ascertained.

TABLE III-8

USE OF AIR, RAIL, BUS AND AUTO BY OCCUPATION OF THIS ADULT
(Percentage distribution of adults)

Use of air	Occupation of adult								
	All adults ^a	Housewives, retired, students	Professional, technical	Managerial	Self-employed	Clerical, sales	Craftsmen, foremen, operatives	Laborers, service workers	Farmers, farm managers
<u>Took one or more air trips last year</u>	<u>11</u>	<u>7</u>	<u>29</u>	<u>38</u>	<u>19</u>	<u>15</u>	<u>5</u>	<u>3</u>	<u>*</u>
For business reasons	3	1	15	21	10	4	2	*	
For non-business reasons	7	6	10	11	8	10	3	3	
For both business and non-business reasons	1	*	4	6	1	1	*	*	
<u>Did not take an air trip last year</u>	<u>89</u>	<u>93</u>	<u>71</u>	<u>62</u>	<u>81</u>	<u>85</u>	<u>95</u>	<u>97</u>	<u>100</u>
Total	100	100	100	100	100	100	100	100	100
<u>Use of rail</u>									
<u>Took one or more rail trips last year</u>	<u>7</u>	<u>7</u>	<u>12</u>	<u>12</u>	<u>10</u>	<u>8</u>	<u>5</u>	<u>5</u>	<u>3</u>
For business reasons	1	*	5	7	3	1	1	*	*
For non-business reasons	6	7	6	5	7	7	4	5	3
For both business and non-business reasons	*	*	1	*	*	*	*	*	*
<u>Did not take a rail trip last year</u>	<u>93</u>	<u>93</u>	<u>88</u>	<u>88</u>	<u>90</u>	<u>92</u>	<u>95</u>	<u>95</u>	<u>97</u>
Total	100	100	100	100	100	100	100	100	100

Use of bus	Occupation of adult								
	All adults ^a	Housewives, retired, students	Professional, technical	Managerial	Self-employed	Clerical sales	Craftsmen, foremen, operatives	Laborers, service workers	Farmers, farm managers
<u>Took one or more bus trips last year</u>	<u>9</u>	<u>9</u>	<u>9</u>	<u>5</u>	<u>6</u>	<u>9</u>	<u>6</u>	<u>10</u>	<u>7</u>
For business reasons	1	*	*	2	2	*	1	1	2
For non-business reasons	8	9	7	3	4	9	5	9	5
For both business and non-business reasons	*	*	2	*	*	*	*	*	*
<u>Did not take a bus trip last year</u>	<u>91</u>	<u>91</u>	<u>91</u>	<u>95</u>	<u>94</u>	<u>91</u>	<u>94</u>	<u>90</u>	<u>93</u>
Total	100	100	100	100	100	100	100	100	100
<u>Use of auto</u>									
<u>Took one or more auto trips last year</u>	<u>64</u>	<u>61</u>	<u>72</u>	<u>79</u>	<u>74</u>	<u>74</u>	<u>69</u>	<u>43</u>	<u>55</u>
For business reasons	3	1	7	8	12	6	3	3	5
For non-business reasons	54	57	50	44	42	59	61	38	40
For both business and non-business reasons	7	3	22	27	20	9	5	2	10
<u>Did not take an auto trip last year</u>	<u>36</u>	<u>39</u>	<u>21</u>	<u>21</u>	<u>26</u>	<u>26</u>	<u>31</u>	<u>57</u>	<u>45</u>
Total	100	100	100	100	100	100	100	100	100
Number of adults	5329	2489	405	177	225	507	820	435	109

* Less than one-half of one per cent.

^a Includes 162 adults whose occupation was not ascertained.

more likely to travel than those in lower status occupations.

The direct effect of occupation is on business travel rather than on non-business travel. About 19 per cent of professional and technical workers took a business air trip compared to only 5 per cent of clerical and sales workers. Of all managerial workers 27 per cent took at least one business air trip over the twelve month period, the highest percentage observed. Professional and managerial workers are also more likely to travel by rail on business than members of other occupations. Few members of any occupation group travel by bus on business. A large number of self-employed workers, 32 per cent, travel by auto on business at least once during a year. This percentage is roughly similar to the percentages of professional and managerial workers who take business trips by auto.

G. Age.

Half of the adults aged 65 or over took no trip and only 1 per cent took 16 trips or more (Table III-9). The most frequent travelers are those aged 35-44. Of this age group three out of four took at least one trip and 9 per cent took 16 or more trips.

The use of each of the four modes of travel is related to age, but the shape of the relation differs (Table III-10). People over 65 are only half as likely as those under 65 to take at least one air trip in a year. Auto travel also is less common among people over 65; 44 per cent of them took an auto trip compared to about two-thirds of the rest of the population. The age group most likely to take an auto trip is the group aged about 40.

Travel by bus, however, is least frequent among those aged about 40 and most frequent for those aged 18-24. Of those over 65 about one in ten took a bus trip; the percentage is if anything higher than for the population as a whole. Rail travel has the same U-shaped relation to age but the peak is at about age 60.

TABLE III-9

FREQUENCY OF TRAVEL BY ALL MODES LAST YEAR BY AGE OF ADULT
(Percentage distribution of adults)

Number of trips last year	All adults ^a	Age of adult					
		18-24	25-34	35-44	45-54	55-64	65 and over
No trips	31	30	28	24	29	34	49
1 trip	18	17	17	19	17	18	17
2 - 4 trips	23	24	24	26	24	23	18
5 -15 trips	19	19	21	20	20	17	13
16 or more trips	6	6	7	9	7	6	1
Not ascertained	3	4	3	2	3	2	2
Total	100	100	100	100	100	100	100
Number of adults	5328	720	1048	1149	990	708	691

^a Includes 22 adults for whom age was not ascertained.

TABLE III-10
USE OF AIR, RAIL, BUS, AND AUTO LAST YEAR BY AGE OF ADULT
(Percentage distribution of adults)

Use of air	All adults ^a	Age of adult					
		18-24	25-34	35-44	45-54	55-64	65 and over
<u>Took one or more air trips last year</u>	<u>11</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>10</u>	<u>9</u>	<u>5</u>
For business reasons	3	2	4	6	4	2	*
For non-business reasons	7	9	7	6	5	6	5
For both business and non-business reasons	1	*	1	1	1	1	*
<u>Did not take an air trip last year</u>	<u>89</u>	<u>89</u>	<u>88</u>	<u>87</u>	<u>90</u>	<u>91</u>	<u>95</u>
Total	100	100	100	100	100	100	100
<u>Use of rail</u>							
<u>Took one or more rail trips last year</u>	<u>7</u>	<u>8</u>	<u>5</u>	<u>7</u>	<u>7</u>	<u>11</u>	<u>8</u>
For business reasons	1	1	1	2	1	2	*
For non-business reasons	6	7	4	5	6	9	8
For both business and non-business reasons	*	*	*	*	*	*	*
<u>Did not take a rail trip last year</u>	<u>93</u>	<u>92</u>	<u>95</u>	<u>93</u>	<u>93</u>	<u>89</u>	<u>92</u>
Total	100	100	100	100	100	100	100

TABLE III-10 continued - USE OF AIR, RAIL, BUS AND AUTO LAST YEAR BY AGE OF ADULT

Use of bus	All adults ^a	Age of adult					
		18-24	25-34	35-44	45-54	55-64	65 and over
<u>Took one or more bus trips last year</u>	<u>9</u>	<u>13</u>	<u>7</u>	<u>5</u>	<u>7</u>	<u>11</u>	<u>10</u>
For business reasons	1	1	1	1	*	1	*
For non-business reasons	8	12	6	4	7	10	10
For both business and non-business reasons	*	*	*	*	*	*	*
<u>Did not take a bus trip last year</u>	<u>91</u>	<u>87</u>	<u>93</u>	<u>95</u>	<u>93</u>	<u>89</u>	<u>90</u>
Total	100	100	100	100	100	100	100
<u>Use of auto</u>							
<u>Took one or more auto trips last year</u>	<u>64</u>	<u>65</u>	<u>69</u>	<u>72</u>	<u>67</u>	<u>60</u>	<u>44</u>
For business reasons	3	2	4	4	4	3	1
For non-business reasons	54	57	56	58	55	52	41
For both business and non-business reasons	7	6	9	10	8	5	2
<u>Did not take an auto trip last year</u>	<u>36</u>	<u>35</u>	<u>31</u>	<u>28</u>	<u>33</u>	<u>40</u>	<u>56</u>
Total	100	100	100	100	100	100	100
Number of adults	5328	720	1049	1149	990	708	690

* Less than one-half of one per cent.

^a Includes 22 adults for whom age was not ascertained.

H. Stage in the family life cycle

The differences in travel behavior by stage in the family life cycle are broadly similar to the differences by age groups (Table III-11). The differences between life cycle stages, however, tend to be greater. Young single people travel more by each of the common carriers and less by auto than the young married people. As between older married couples and older single people the most noticeable difference is between travel by bus and travel by auto. Older couples without children living at home are half as likely to travel by bus as older adults who are single (that is, either single, widowed, separated, or divorced). Older married couples are much more likely to travel by auto than older single people, as one might expect.

I. Size of place of residence

While 31 per cent of all adults took no trips in the year prior to the survey, 51 per cent of the adults in central cities of the 12 largest metropolitan areas took no trips. These people are less likely to travel than those in any other place of residence.

There is a small group in the suburbs with population under 2500 on the fringes of the largest metropolitan areas who seem to be low frequency travelers. Their number is so small that the finding is not of great reliability or interest. Apart from them, the proportion taking at least one trip is remarkably uniform in other urban areas with population from 2500 to a million. In the rural areas the proportion taking no trips rises to about 36 per cent.

The proportion of frequent travelers is also low in the large central cities. Only 11 per cent of the adults in such areas take five or more trips. In other urban areas the proportion taking five or more trips is in the neighborhood of 30 per cent. In rural areas the proportion taking five or more trips falls again to about 20 per cent. (Table III-12)

Since travel by automobile is such a large part of total travel, one would expect the proportion taking one or more trips by auto to show the same general pattern as the proportion taking any trips. This expectation is

TABLE III-11

USE OF AIR, RAIL, BUS, AND AUTO LAST YEAR BY STAGE IN THE FAMILY LIFE CYCLE
(Percentage distribution of adults interviewed in the fall of 1962)

	Stage in the family life cycle								
	All adults	Young, single	Young, married, no children	Married with children, youngest Under 5	5-14	15-17	Over 45, married, no children under 18	Over 45, single	Other
<u>Use of air</u>									
<u>Took one or more air trips last year</u>	<u>10.3</u>	<u>14</u>	<u>8</u>	<u>13</u>	<u>11</u>	<u>12</u>	<u>8</u>	<u>7</u>	<u>6</u>
For business reasons	3.0	1	2	5	4	8	2	*	*
For non-business reasons	6.6	11	5	8	6	4	5	7	6
For both business and non-business reasons	0.7	2	1	*	1	*	1	*	*
<u>Did not take an air trip last year</u>	<u>89.7</u>	<u>86</u>	<u>92</u>	<u>87</u>	<u>89</u>	<u>88</u>	<u>92</u>	<u>93</u>	<u>94</u>
Total	100.0	100	100	100	100	100	100	100	100
<u>Use of rail</u>									
<u>Took one or more rail trips last year</u>	<u>7.4</u>	<u>12</u>	<u>3</u>	<u>5</u>	<u>8</u>	<u>6</u>	<u>9</u>	<u>10</u>	<u>*</u>
For business reasons	1.2	1	*	1	2	4	1	1	*
For non-business reasons	6.0	11	3	4	6	2	8	9	*
For both business and non-business reasons	0.2	*	*	*	*	*	*	*	*
<u>Did not take a rail trip last year</u>	<u>92.6</u>	<u>88</u>	<u>97</u>	<u>95</u>	<u>92</u>	<u>94</u>	<u>91</u>	<u>90</u>	<u>100</u>
Total	100.0	100	100	100	100	100	100	100	100

TABLE III-11 continued - USE OF AIR, RAIL, BUS AND AUTO LAST YEAR BY STAGE IN THE FAMILY LIFE CYCLE

Use of bus	Stage in the family life cycle								
	All adults	Young, single	Young, married, no children	Married with children, youngest			Over 45, married, no children	Over 45, single	Other
				Under 5	5-14	15-17	under 18		
<u>Took one or more bus trips last year</u>	<u>8.1</u>	<u>12</u>	<u>7</u>	<u>7</u>	<u>6</u>	<u>11</u>	<u>7</u>	<u>15</u>	<u>12</u>
For business reasons	0.5	*	2	*	*	3	*	*	*
For non-business reasons	7.3	11	5	7	6	8	7	14	12
For both business and non-business reasons	0.3	1	*	*	*	*	*	1	*
<u>Did not take a bus trip last year</u>	<u>91.9</u>	<u>88</u>	<u>93</u>	<u>93</u>	<u>94</u>	<u>89</u>	<u>93</u>	<u>85</u>	<u>88</u>
Total	100.0	100	100	100	100	100	100	100	100
<u>Use of auto</u>									
<u>Took one or more auto trips last year</u>	<u>64.2</u>	<u>58</u>	<u>74</u>	<u>68</u>	<u>76</u>	<u>77</u>	<u>61</u>	<u>41</u>	<u>45</u>
For business reasons	2.9	2	6	4	3	1	4	1	*
For non-business reasons	53.4	49	58	54	63	61	52	37	41
For both business and non-business reasons	7.9	7	10	10	10	15	5	3	4
<u>Did not take an auto trip last year</u>	<u>35.8</u>	<u>42</u>	<u>26</u>	<u>32</u>	<u>24</u>	<u>23</u>	<u>39</u>	<u>59</u>	<u>55</u>
Total	100.0	100	100	100	100	100	100	100	100
Number of adults	2729	275	155	571	555	122	710	270	51

* Less than one-half of one per cent.

TABLE III-12
FREQUENCY OF TRAVEL LAST YEAR BY SIZE OF PLACE OF RESIDENCE
(Percentage distribution of adults)

Number of trips	All adults	Twelve largest metropolitan areas					Other areas				
		Central cities	Suburbs 50,000 +	Suburbs 2500-49,999 & other urban	All other suburbs	Cities 50,000 +	Other urban parts of metro areas	Places 2500-49,999 not in metro areas	Places under 2500 not in metro areas	Rural parts of metro areas	Other rural areas
No trips	31	51	28	26	44	26	26	27	30	29	36
1 trip	18	16	12	21	31	16	16	19	24	19	19
2 - 4 trips	23	20	30	26	16	24	24	23	25	27	22
5 - 15 trips	19	8	20	20	9	23	23	20	16	20	14
16 or more trips	6	3	9	5	*	8	8	6	5	3	6
Not ascertained	3	2	1	2	*	3	3	5	*	2	3
Total	100	100	100	100	100	100	100	100	100	100	100
Number of adults	5328	580	161	713	64	1080	626	614	265	312	913

* Less than one-half of one per cent.

correct. As shown in Table III-13, only 40 per cent of adults in central cities took an auto trip last year, compared to 60 per cent or more in other areas. The proportion in the rural areas taking an auto trip is somewhat less than that in most urban areas.

The pattern for air travel is different. People living in the twelve largest metropolitan areas, even those in the central cities, are more likely to travel by air than those living elsewhere. In the large suburbs of the largest metropolitan areas 27 per cent of all adults took at least one air trip in a one year period. The proportion taking an air trip falls off as one proceeds to areas of lower population, and is in the range from 4 to 7 per cent in places with population of less than fifty thousand people.

The pattern for rail travel is remarkably similar to that for air travel except that in general the proportion taking an air trip exceeds the proportion taking a rail trip. In the small cities, towns and villages, however, the proportion taking a rail trip is larger than the proportion taking an air trip. It may be that these places are better served by the railroads than by the airlines.

Comparatively speaking, the strength of the bus lines seems to be greatest in the rural areas. The proportion taking at least one bus trip exceeds the proportion taking a rail trip or air trip in the small towns and rural areas. In the cities of fifty thousand population and above, exclusive of the twelve largest cities, the proportion taking a bus trip is almost the same as the proportion taking a rail or air trip. It is in the suburbs of the largest metropolitan areas that the proportion taking a bus trip is lowest in comparison with the proportion traveling by air or rail.

These results are consistent with the earlier findings showing the relation between income and the use of the different modes of transportation. The people who live in the suburbs of the largest metropolitan areas tend to have high incomes and they tend to travel by air. The people who live in the rural parts of the country tend to have lower incomes than those in the sub-

TABLE III-13

USE OF AIR, RAIL, BUS AND AUTO BY SIZE OF PLACE OF RESIDENCE
(Percentage distribution of adults)

		Twelve largest metropolitan areas					Other areas				
			Suburbs 2500- 49,999	All other suburbs			Other urban parts of metro areas	Places 2500- 49,999 not in metro areas	Places under 2500 not in metro areas	Rural parts of metro areas	Other rural areas
Use of air last year	All adults	Central cities	Suburbs 50,000 +			Cities 50,000 +					
Took one or more air trips	10.7	12	27	18	6	12	9	7	4	5	6
Business	3.2	2	6	4	3	5	3	2	1	2	2
Non-business	6.7	9	20	13	3	6	5	5	3	3	4
Both busi- ness and non-business	0.8	1	1	1	*	1	1	*	*	*	*
Took no air trips	89.3	88	73	82	94	88	91	93	96	95	94
Total	100.0	100	100	100	100	100	100	100	100	100	100
Use of rail last year	7.4	8	17	9	*	10	5	9	6	3	5
Business	1.2	1	1	1	*	2	*	2	*	1	1
Non-business	6.0	7	15	8	*	8	5	7	6	2	4
Both busi- ness and non-business	0.2	*	1	*	*	*	*	*	*	*	*
Took no air trips	92.6	92	83	91	100	90	95	91	94	97	95
Total	100.0	100	100	100	100	100	100	100	100	100	100

TABLE III-13 continued - USE OF AIR, RAIL, BUS AND AUTO BY SIZE OF PLACE OF RESIDENCE

		Twelve largest metropolitan areas					Other areas				
			Suburbs	Suburbs	All		Other	Places	Places	Rural	
		All	50,000	2500-	other	Cities	urban	2500-	under	parts	Other
Use of bus	adults	central	+	49,999	suburbs	50,000	parts	49,999 not	2500 not	of	rural
last year		cities		& other		+	of metro	in metro	in metro	metro	areas
				urban			areas	areas	areas	areas	areas
<u>Took one or more bus trips</u>	<u>8.5</u>	<u>8</u>	<u>11</u>	<u>6</u>	<u>5</u>	<u>11</u>	<u>6</u>	<u>12</u>	<u>9</u>	<u>10</u>	<u>7</u>
Business	0.6	*	*	*	*	1	*	1	*	*	1
Non-business	7.6	8	10	6	5	10	6	11	9	10	6
Both busi- ness and non-business	0.3	*	1	*	*	*	*	*	*	*	*
<u>Took no bus trips</u>	<u>91.5</u>	<u>92</u>	<u>89</u>	<u>94</u>	<u>95</u>	<u>89</u>	<u>94</u>	<u>88</u>	<u>91</u>	<u>90</u>	<u>93</u>
Total	100.0	100	100	100	100	100	100	100	100	100	100
<u>Use of auto last year</u>	<u>63.8</u>	<u>40</u>	<u>63</u>	<u>68</u>	<u>56</u>	<u>69</u>	<u>72</u>	<u>67</u>	<u>63</u>	<u>68</u>	<u>61</u>
Business	3.2	1	3	1	3	4	3	4	2	3	5
Non-business	53.5	38	56	63	51	54	60	53	52	59	49
Both busi- ness and non-business	7.1	1	4	4	2	11	9	10	9	6	7
<u>Took no auto trips</u>	<u>36.2</u>	<u>60</u>	<u>37</u>	<u>32</u>	<u>44</u>	<u>31</u>	<u>28</u>	<u>33</u>	<u>37</u>	<u>32</u>	<u>39</u>
Total	100.0	100	100	100	100	100	100	100	100	100	100
<u>Number of adults</u>	<u>5328</u>	<u>580</u>	<u>161</u>	<u>713</u>	<u>64</u>	<u>1080</u>	<u>626</u>	<u>614</u>	<u>265</u>	<u>312</u>	<u>913</u>

* Less than one-half of one per cent.

urbs of the largest cities, and they tend to travel by bus. There are also many low income people in the central cities of the largest metropolitan areas, but these people do not seem to be particularly likely to travel by any of the common carriers.

J. Distance from center of metropolitan area

An alternative way of classifying locations within metropolitan areas is by distance from a single point which is taken as the center of the central city. This approach is illustrated in Table III-14. Only 22 per cent of those not living in a metropolitan area took a common carrier trip, compared to 29 per cent in the population as a whole. Within metropolitan areas, about one third of those at each distance from the center of the city up to eight miles took a common carrier trip. There seems to be a peak in the percentage taking a common carrier trip among those who live from ten to fifteen miles out, who include the frequent air travelers living in suburban areas. Of those living over twenty-five miles out the proportion taking a common carrier trip falls off, and is at the same level approximately as in the parts of the country not in standard metropolitan areas.

K. Type of neighborhood

Another system of classifying locations used in Tables III-15 through III-18, takes into account both distance from the center of the central city and density of population in the neighborhood. Density of population is ordinarily thought of in terms of population per square mile. Such statistics are readily available on a county basis. In this investigation, however, a measure of density was desired which would refer to a much smaller area, the neighborhood. The method used was to ask the interviewer to note the type of structure found in the first three structures to the right and to the left of the sample address. If single family houses and no other type of residences were found, the area was classified as low density. If the seven

TABLE III-14

WHETHER ANY ADULT IN THE FAMILY TOOK A COMMON CARRIER TRIP LAST YEAR
 BY DISTANCE FROM CENTER OF STANDARD METROPOLITAN AREA
 (Percentage distribution of respondents)

Whether any adult took a common carrier trip	All respondents	Distance from center (miles)										Not in a standard metro area
		0- 0.9	1.0- 1.9	2.0- 3.9	4.0- 5.9	6.0- 7.9	8.0- 9.9	10.0- 14.9	15.0- 24.9	25 or more		
One or more common carrier trips taken	29	34	32	33	31	34	20	39	32	23	22	
No common carrier trips taken	<u>71</u>	<u>66</u>	<u>68</u>	<u>67</u>	<u>69</u>	<u>66</u>	<u>80</u>	<u>61</u>	<u>68</u>	<u>77</u>	<u>78</u>	
Total	100	100	100	100	100	100	100	100	100	100	100	
Number of respondents	2651	100	166	292	287	171	107	285	269	149	825	

TABLE III-15

TYPE OF NEIGHBORHOOD BY USE OF AIR LAST YEAR
(Percentage distribution of adults)

Type of neighborhood	All adults	Use of air last year			
		Business air trips only	Non-business air trips only	Both business and non-business air trips	No air trips
<u>Low density</u>	<u>44</u>	<u>63</u>	<u>44</u>	<u>39</u>	<u>44</u>
Under 2 miles out	3	4	2	*	3
2 - 5.9 miles	13	11	9	12	13
6 -14.9 miles	14	30	21	20	14
15 miles and over	14	18	12	7	14
<u>Medium density</u>	<u>15</u>	<u>8</u>	<u>16</u>	<u>9</u>	<u>15</u>
Under 2 miles out	4	2	1	2	4
2 - 5.9 miles	5	2	7	2	5
6 -14.9 miles	4	2	5	5	4
15 miles and over	2	2	3	*	2
<u>High density</u>	<u>8</u>	<u>10</u>	<u>20</u>	<u>32</u>	<u>7</u>
Under 2 miles out	3	2	3	7	3
2 - 5.9 miles	3	4	9	15	2
6 -14.9 miles	2	4	7	8	2
15 miles and over	*	*	1	2	*
<u>Other (trailers)</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>*</u>	<u>2</u>
<u>Not in metro areas</u>	<u>30</u>	<u>16</u>	<u>18</u>	<u>18</u>	<u>31</u>
<u>Not ascertained</u>	<u>1</u>	<u>1</u>	<u>*</u>	<u>2</u>	<u>1</u>
Total	100	100	100	100	100
Number of adults	5326	169	356	41	4760

* Less than one-half of one per cent.

TABLE III-16

TYPE OF NEIGHBORHOOD BY USE OF RAIL LAST YEAR
(Percentage distribution of adults)

Type of neighborhood	All adults ^a	Use of rail last year		
		Business rail trips only	Non-business rail trips only	No rail trips
<u>Low density</u>	<u>44</u>	<u>43</u>	<u>38</u>	<u>44</u>
Under 2 miles out	3	6	3	3
2 - 5.9 miles	13	4	12	13
6 -14.9 miles	14	18	12	14
15 miles and over	14	15	11	14
<u>Medium density</u>	<u>15</u>	<u>14</u>	<u>22</u>	<u>15</u>
Under 2 miles out	4	5	3	4
2 - 5.9 miles	5	3	10	5
6 -14.9 miles	4	3	7	4
15 miles and over	2	3	2	2
<u>High density</u>	<u>8</u>	<u>14</u>	<u>13</u>	<u>8</u>
Under 2 miles out	3	5	3	3
2 - 5.9 miles	3	7	4	3
6 -14.9 miles	2	1	6	2
15 miles and over	*	1	*	*
<u>Other (trailers)</u>	<u>2</u>	<u>3</u>	<u>2</u>	<u>2</u>
<u>Not in metro areas</u>	<u>30</u>	<u>26</u>	<u>25</u>	<u>30</u>
<u>Not ascertained</u>	<u>1</u>	<u>*</u>	<u>*</u>	<u>1</u>
Total	100	100	100	100
Number of adults	5326	66	321	4927

* Less than one-half of one per cent.

^a Includes 12 adults who took rail trips for both business and non-business reasons.

TABLE III-17
TYPE OF NEIGHBORHOOD BY USE OF BUS LAST YEAR
(Percentage distribution of adults)

Type of neighborhood	All adults ^a	Use of bus last year		
		Business bus trips only	Non-business bus trips only	No bus trips
<u>Low density</u>	<u>44</u>	<u>37</u>	<u>34</u>	<u>45</u>
Under 2 miles out	3	14	5	3
2 - 5.9 miles	13	7	11	13
6 -14.9 miles	14	3	9	15
15 miles and over	14	13	9	14
<u>Medium density</u>	<u>15</u>	<u>17</u>	<u>17</u>	<u>15</u>
Under 2 miles out	4	3	5	3
2 - 5.9 miles	5	7	5	6
6 -14.9 miles	4	*	5	4
15 miles and over	2	7	2	2
<u>High density</u>	<u>8</u>	<u>6</u>	<u>11</u>	<u>8</u>
Under 2 miles out	3	3	5	3
2 - 5.9 miles	3	*	5	3
6 -14.9 miles	2	3	1	2
15 miles and over	*	*	*	*
<u>Other (trailers)</u>	<u>2</u>	<u>13</u>	<u>4</u>	<u>2</u>
<u>Not in metro areas</u>	<u>30</u>	<u>27</u>	<u>33</u>	<u>30</u>
<u>Not ascertained</u>	<u>1</u>	<u>*</u>	<u>1</u>	<u>*</u>
Total	100	100	100	100
Number of adults	5326	30	404	488

* Less than one-half of one per cent.

^a Includes 14 adults who took bus trips for both business and non-business reasons.

TABLE III-18
TYPE OF NEIGHBORHOOD BY USE OF AUTO LAST YEAR
(Percentage distribution of adults)

Type of neighborhood	All adults ^a	Use of auto last year			
		Business auto trips only	Non-business auto trips only	Both business and non-business auto trips	No auto trips
<u>Low density</u>	<u>44</u>	<u>40</u>	<u>49</u>	<u>44</u>	<u>37</u>
Under 2 miles out	3	3	3	2	3
2 - 5.9 miles	13	10	14	13	11
6 -14.9 miles	14	14	18	15	10
15 miles and over	14	13	14	14	13
<u>Medium density</u>	<u>15</u>	<u>13</u>	<u>14</u>	<u>10</u>	<u>18</u>
Under 2 miles out	4	4	3	5	3
2 - 5.9 miles	5	4	4	3	8
6 -14.9 miles	4	4	5	2	5
15 miles and over	2	1	2	*	2
<u>High density</u>	<u>8</u>	<u>4</u>	<u>6</u>	<u>5</u>	<u>12</u>
Under 2 miles out	3	2	2	1	5
2 - 5.9 miles	3	2	3	3	4
6 -14.9 miles	2	*	1	1	3
15 miles and over	*	*	*	*	*
<u>Other (trailers)</u>	<u>2</u>	<u>6</u>	<u>2</u>	<u>4</u>	<u>2</u>
<u>Not in metro areas</u>	<u>30</u>	<u>37</u>	<u>28</u>	<u>37</u>	<u>30</u>
<u>Not ascertained</u>	<u>1</u>	<u>*</u>	<u>1</u>	<u>*</u>	<u>1</u>
Total	100	100	100	100	100
Number of adults	5326	172	2853	380	1914

* Less than one-half of one per cent.

^a Includes 7 adults for whom use of auto was not ascertained.

structures included two to four family dwellings, the area was classified as medium density. If there were any apartment houses with five or more families, the area was classified as high density.

About 70 per cent of the adult population live in metropolitan areas, and of these, 44 per cent live in low density neighborhoods, 15 per cent in medium density neighborhoods, and 8 per cent in high density neighborhoods. Air travelers are distributed roughly in the same manner as the adult population as a whole. There seem to be differences, however, between those who used air on business only and those who took non-business air trips only. The non-business air travelers are more likely than the general population to live in high density neighborhoods close to the center of a metropolitan area. Those who traveled on business only, however, are likely to live in low density neighborhoods six miles or more from the center of a metropolitan area.

People who live in high density neighborhoods took proportionately more rail trips than people living in less dense neighborhoods. There also seems to be a concentration of those who took non-business rail trips in medium density neighborhoods from two to fifteen miles from center of a metropolitan area. The proportion of rail travelers in low density neighborhoods seems to be about the same as the proportion of those who took no rail trips in such neighborhoods.

There is no question of a difference between the distribution of bus travelers and the distribution of the adults who did not take a bus trip. Only 34 per cent of those who took a non-business bus trip live in low density areas, compared to 45 per cent of those who took no such trip. The proportion of bus travelers in medium density neighborhoods and the proportion of bus travelers in high density neighborhoods exceeds the proportion of the general population in such areas.

Those who travel by auto tend to live in low density neighborhoods, especially low density neighborhoods more than five miles out. Auto travelers are not particularly likely to live in medium density neighborhoods, and they

are clearly less likely to live in high density neighborhoods than the general population.

Another way of looking at this body of information is to focus attention on the distance dimension. For example, 20 per cent of all business air travelers live in metropolitan areas 15 miles or more from the center of the city and 36 per cent of all those who took a non-business bus trip live within 6 miles of the center of a metropolitan area.

L. Region of the country

There are differences among regions regarding frequency of travel. Of those living in the Northeast, 37 per cent took no trip in the year prior to the survey, compared to 27 per cent of those living in the West (Table III-19). The North Central and South fall between the other regions with respect to frequency of travel. The same is true if one considers the proportion who took five or more trips. Of those in the Northeast, 20 per cent took five or more trips; of those in the West, 30 per cent.

The proportion using each of the four modes by region is shown in Table III-20. The proportion taking an air trip was higher in the West than in the remainder of the country, especially the proportion taking an air trip for non-business reasons. There were no substantial differences among the regions in the proportion taking one or more rail trips. The proportion taking a bus trip seems to have been higher in the South and in the West than in the Northeast and the North Central states. The proportion taking an auto trip was lower in the Northeast than in the other three regions.

Thus, the low proportion of travelers in the Northeast results primarily from a low proportion of auto travelers in that part of the country. The high proportion of travelers in the West seems to result from a general tendency to take more trips to places of 100 miles or more away by all methods of transportation.

TABLE III-19
FREQUENCY OF TRAVEL BY REGION
(Percentage distribution of adults)

Number of trips	All adults	Region ^a			
		Northeast	North central	South	West
No trips	31	37	30	31	27
1 trip	18	18	18	18	15
2 - 4 trips	23	23	25	22	24
5 -15 trips	19	16	18	20	21
16 or more trips	6	4	7	6	9
Not ascertained	3	2	2	3	4
Total	100	100	100	100	100
Number of adults	5328	1182	1549	1796	801

^a The regions are defined as follows:

Northeast: Conn., Dela., Me., Mass., N.H., N.J., N. Y., Penna.,
R.I., Vt.

North Central: Ill., Ind., Ia., Kans., Mich., Minn., Mo., Nebr.,
N.D., Ohio, S.D., Wis.

South: Ala., Ark., D.C., Fla., Ga., Ky., La., Md., Miss., N.C.,
Okla., S.C., Tenn., Tex., Va., W. Va.

West: Ariz., Calif., Colo., Idaho, Mont., Nev., N.M., Ore.,
Utah, Wash., Wyo.

TABLE III-20

USE OF AIR, RAIL, BUS AND AUTO BY REGION
(Percentage distribution of adults)

	All adults	Region			
		Northeast	North central	South	West
<u>Use of air</u>					
<u>Took one or more air trips last year</u>	<u>10.7</u>	<u>11</u>	<u>10</u>	<u>10</u>	<u>15</u>
For business reasons	3.2	3	3	4	2
For non-business reasons	6.7	7	6	5	12
Both for business and non-business reasons	0.8	1	1	1	1
<u>Did not take an air trip last year</u>	<u>89.3</u>	<u>89</u>	<u>90</u>	<u>90</u>	<u>85</u>
Total	100.0	100	100	100	100
<u>Use of rail</u>					
<u>Took one or more rail trips last year</u>	<u>7.4</u>	<u>8</u>	<u>7</u>	<u>7</u>	<u>8</u>
For business reasons	1.2	1	1	1	1
For non-business reasons	6.0	7	6	6	7
Both for business and non-business reasons	0.2	*	*	*	*
<u>Did not take a rail trip last year</u>	<u>92.6</u>	<u>92</u>	<u>93</u>	<u>93</u>	<u>92</u>
Total	100.0	100	100	100	100

TABLE III-20 continued - USE OF AIR, RAIL, BUS AND AUTO BY REGION

	All adults	Region			
		Northeast	North central	South	West
<u>Use of bus</u>					
<u>Took one or more bus trips last year</u>	<u>8.5</u>	<u>7</u>	<u>7</u>	<u>10</u>	<u>10</u>
For business reasons	0.6	*	*	1	1
For non-business reasons	7.6	7	7	9	9
Both for business and non-business reasons	0.3	*	*	*	*
<u>Did not take a bus trip last year</u>	<u>91.5</u>	<u>93</u>	<u>93</u>	<u>90</u>	<u>90</u>
Total	100.0	100	100	100	100
<u>Use of auto</u>					
<u>Took one or more auto trips last year</u>	<u>63.8</u>	<u>58</u>	<u>65</u>	<u>65</u>	<u>68</u>
For business reasons	3.2	2	3	5	2
For non-business reasons	53.5	52	56	51	57
Both for business and non-business reasons	7.1	4	6	9	9
<u>Did not take an auto trip last year</u>	<u>36.2</u>	<u>42</u>	<u>35</u>	<u>35</u>	<u>32</u>
Total	100.0	100	100	100	100
Number of adults	5328	1182	1549	1796	801

* Less than one-half of one per cent.

M. Whether lives in the New York area

The metropolitan area surrounding New York City is large enough so that it is possible to make separate tabulations for those who live in that region. Of those adults living in the New York area, 15 per cent took at least one air trip in the past year, compared to 11 per cent for the country as a whole and 11 per cent for the entire Northeast. (Table III-21). A high proportion of air travelers in the New York area is not surprising in view of the general tendency of people who live in metropolitan areas to travel by air, as previously shown in Table III-13. Of people in the New York area, 11 per cent took at least one rail trip last year compared to 7 per cent for the United States as a whole, and about 8 per cent for the entire Northeast. Keeping in mind that the findings are subject to some sampling error, it seems reasonable to interpret this result as not strikingly different from what one might expect on the basis of the findings for all large cities in Table III-13. The proportion who took a bus trip in the New York area, 7.4 per cent of all adults, is, if anything, less than the proportion for the country as a whole, but about the same as the proportion for the Northeast. The finding is consistent with the interpretation that people in suburban areas are not likely to take bus trips to places one hundred miles or more away, also noted in Table III-13.

Only 47 per cent of adults in the New York area took an auto trip last year. This percentage is lower than that for the Northeast as a whole, and it is lower than that for any of the locational classifications in Table III-13 except the central cities of the twelve largest metropolitan areas.

The next set of four tables should be regarded as experimental since they push the data fully as far as the sample size will permit. Tables III-22 to III-25 show the relation between type of neighborhood and the use of the four modes of transportation for those adults who live in the New York area only. The first finding concerns the distribution of adults in the area by type of neighborhood. Forty-five per cent live in low density neighborhoods,

TABLE III -21

USE OF AIR, RAIL, BUS, LAST YEAR BY WHETHER LIVES IN THE NEW YORK AREA
(Percentage distribution of adults)

	All adults	Area of residence	
		Live in the New York area	Does not live in the New York area
<u>Use of air</u>			
Took one or more air trips last year	10.7	14.7	10.4
Did not take any air trips last year	<u>89.3</u>	<u>85.3</u>	<u>89.6</u>
Total	100.0	100.0	100.0
<u>Use of rail</u>			
Took one or more rail trips last year	7.4	11.3	7.1
Did not take any rail trips last year	<u>92.6</u>	<u>88.7</u>	<u>92.9</u>
Total	100.0	100.0	100.0
<u>Use of bus</u>			
Took one or more bus trips last year	8.5	7.4	8.6
Did not take any bus trips last year	<u>91.5</u>	<u>92.6</u>	<u>91.4</u>
Total	100.0	100.0	100.0
<u>Use of auto</u>			
Took one or more auto trips last year	64.0	46.8	65.3
Did not take any auto trips last year	<u>36.0</u>	<u>53.2</u>	<u>34.7</u>
Total	100.0	100.0	100.0
Number of adults	5329	380	4949

TABLE III- 22

TYPE OF NEIGHBORHOOD BY USE OF AIR
(Percentage distribution of adults who live in the New York area)

Type of neighborhood	All adults	Use of air last year	
		Took one or more air trips	Did not take any air trips
<u>Low density</u>	<u>45</u>	<u>46</u>	<u>44</u>
Under 2 miles out	*	*	*
2 - 5.9 miles	*	*	*
6 -14.9 miles	20	20	20
15 miles and over	25	26	24
<u>Medium density</u>	<u>19</u>	<u>13</u>	<u>20</u>
Under 2 miles out	*	*	*
2 - 5.9 miles	3	4	3
6 -14.9 miles	14	7	15
15 miles and over	2	2	2
<u>High density</u>	<u>36</u>	<u>41</u>	<u>36</u>
Under 2 miles out	4	11	3
2 - 5.9 miles	19	23	18
6 -14.9 miles	13	7	15
15 miles and over	*	*	*
Total	100	100	100
Number of adults	369 ^a	56	312

* Less than one-half of one per cent.

^a Excludes 11 adults for whom type of neighborhood was either not ascertained or included trailers.

Note: In the New York area, distances are measured from Columbus Circle.

TABLE III-23

TYPE OF NEIGHBORHOOD BY USE OF RAIL
(Percentage distribution of adults who live in the New York area)

Type of neighborhood	All adults	Use of rail last year	
		Took one or more rail trips	Did not take any rail trips
<u>Low density</u>	<u>45</u>	<u>35</u>	<u>46</u>
Under 2 miles out	*	*	*
2 - 5.9 miles	*	*	*
6 -14.9 miles	20	12	21
15 miles and over	25	23	25
<u>Medium density</u>	<u>19</u>	<u>33</u>	<u>17</u>
Under 2 miles out	*	*	*
2 - 5.9 Miles	3	*	3
6 - 14.9 miles	14	28	12
15 miles and over	2	5	2
<u>High density</u>	<u>36</u>	<u>32</u>	<u>37</u>
Under 2 miles out	4	7	4
2 - 5.9 miles	19	23	18
6 -14.9 miles	13	2	15
15 miles and over	*	*	*
Total	100	100	100
Number of adults	369 ^a	43	326

* Less than one-half of one per cent.

^a Excludes 11 adults for whom type of neighborhood was either not ascertained or included trailers.

TABLE III-24

TYPE OF NEIGHBORHOOD BY USE OF BUS
(Percentage distribution of adults who live in the New York area)

<u>Type of neighborhood</u>	<u>All adults</u>	<u>Use of bus last year</u>	
		<u>Took one or more bus trips</u>	<u>Did not take any bus trips</u>
<u>Low density</u>	<u>45</u>	<u>32</u>	<u>46</u>
Under 2 miles out	*	*	*
2 - 5.9 miles	*	*	*
6 -14.9 miles	20	14	21
15 miles and over	25	18	25
<u>Medium density</u>	<u>19</u>	<u>32</u>	<u>18</u>
Under 2 miles out	*	*	*
2 - 5.9 miles	3	*	3
6 -14.9 miles	14	25	13
15 miles and over	2	7	2
<u>High density</u>	<u>36</u>	<u>36</u>	<u>36</u>
Under 2 miles out	4	4	4
2 - 5.9 miles	19	25	18
6 -14.9 miles	13	7	14
15 miles and over	*	*	*
Total	100	100	100
Number of adults	369 ^a	28	341

* Less than one-half of one per cent.

^a Excludes 11 adults for whom type of neighborhood was either not ascertained or included trailers.

TABLE III-25

TYPE OF NEIGHBORHOOD BY USE OF AUTO
(Percentage distribution of adults who live in the New York area)

Type of neighborhood	All adults	Use of auto last year	
		Took one or more auto trips	Did not take any auto trips
<u>Low density</u>	<u>45</u>	<u>59</u>	<u>32</u>
Under 2 miles out	*	*	*
2 - 5.9 miles	*	*	*
6 -14.9 miles	20	31	11
15 miles and over	25	28	21
<u>Medium density</u>	<u>19</u>	<u>17</u>	<u>21</u>
Under 2 miles out	*	*	*
2 - 5.9 miles	3	2	4
6 -14.9 miles	14	13	15
15 miles and over	2	2	2
<u>High density</u>	<u>36</u>	<u>24</u>	<u>47</u>
Under 2 miles out	4	4	4
2 - 5.9 miles	19	14	22
6 -14.9 miles	13	6	20
15 miles and over	*	*	1
Total	100	100	100
Number of adults	369 ^a	171	195

* Less than one-half of one per cent.

^a Excludes 11 adults for whom type of neighborhood was either not ascertained or included trailers.

practically all of them at least 6 miles from Columbus Circle, and 25 per cent 15 miles or more from that location. Nineteen per cent live in medium density neighborhoods, almost all of them in the range from 6 to 14.9 miles from the center of the city. Of the 36 per cent who live in high density neighborhoods, 19 per cent live from 2 to 5.9 miles out, and 13 per cent from 6 to 14.9 miles from Columbus Circle. In view of the size of the sample, this allocation of the population into types of neighborhood should be viewed as only approximate.

Air travelers seem to be under-represented in the medium density neighborhoods. They tend to be found in high density neighborhoods, especially those within five miles of a center of a city, and in the low density neighborhoods five or more miles out. Rail travelers, on the other hand, tend to be more numerous in the medium density areas. Of the rail travelers, 33 per cent live in such areas compared to 13 per cent of the air travelers. There seem to be relatively few rail travelers in low density neighborhoods more than five miles out, if any difference can be detected using this size of sample of rail travelers. The number of bus travelers is even smaller; all that can be said is that they seem to be distributed in about the same manner as the rail travelers.

The data are more satisfactory with regard to automobile travel. About six out of ten of the automobile travelers live in the low density neighborhoods five miles or more from the center of the city. Only 32 per cent of the non-travelers live in such locations. Nearly half, 47 per cent, of those who took no auto trip live in high density neighborhoods, but only 24 per cent of the adults who took a trip by auto live in a high density neighborhood in the New York metropolitan area. These differences between low density and high density neighborhoods are a clear indication of differences in travel from one part to another of the New York metropolitan area.

Another way of presenting the same basic data is to show the proportion of those living in different types of neighborhoods who took a trip by each

mode. The numbers in parentheses are the numbers of adults in each cell on which the percentages are based.

<u>Distance from center of city (miles)</u>	<u>Density of neighborhood</u>					
	<u>Low</u>		<u>Medium</u>		<u>High</u>	
	<u>Air</u>	<u>Auto</u>	<u>Air</u>	<u>Auto</u>	<u>Air</u>	<u>Auto</u>
Under 2	-	-	-	-	43	37 (19)
2 - 4.9	-	-	-	-	23	34 (71)
5 - 14.9	15	69 (75)	4	43 (51)	8	20 (49)
15 or over	18	52 (90)	-	-	-	-

No estimates are shown for some cells because of the lack of observations and the data which are shown are subject to considerable sampling error. Note, however, the consistently low percentage of auto travelers in high density areas, from 20 to 37 per cent, and the much higher proportion of auto travelers in low density areas, from 52 to 69 per cent. Note also the tendency of a large proportion of adults in high density areas close to the center to travel by air, from 23 to 43 per cent.

N. Automobile ownership

Since the automobile competes with other methods of transportation, there is reason to anticipate that those with no car will be more likely to take a trip by common carrier than those who do have cars, who should find it easy to travel by automobile. Such a difference does appear between those with no car and those with one car in the proportion taking common carrier trips in Table III-26. Those with one car are slightly less likely to take a common carrier trip than those with no car. Those with two or more cars, however, are more likely to travel by common carrier than those with no automobile. This difference is probably due to the fact that it is people in the upper

TABLE III-26

WHETHER ANY ADULT IN THE FAMILY TOOK A COMMON CARRIER
TRIP LAST YEAR BY CAR OWNERSHIP
(Percentage distribution of respondents)

Whether any adult took a common carrier trip	All respondents	Number of cars owned			
		<u>None</u>	<u>One</u>	<u>Two</u>	<u>Three or more</u>
One or more common carrier trips taken	29	30	27	34	41
No common carrier trips taken	<u>71</u>	<u>70</u>	<u>73</u>	<u>66</u>	<u>59</u>
Total	100	100	100	100	100
Number of respondents	2651	561	1519	515	55

income groups who own more than one automobile.

This interpretation is supported by the data in Table III-27 as far as travel by rail, bus, and auto is concerned. People who own a car are more likely to travel by auto than those who do not own a car. People who own cars are less likely to travel by bus and by rail than those who own no cars. The difference, however, is substantial for bus travel but not for rail travel. Of those who own no car, 17 per cent took a bus trip compared to about 7 per cent of those who own one or more cars. Of those who own no car, 9 per cent took a rail trip which is only slightly larger than the 6 per cent with one car and 8 per cent with two cars who took a rail trip.

For air travel, however, the relation is reversed. Those who own no car are less likely to travel by air than those who own one car and much less likely to travel by air than those who own two or more cars. It is possible that people who live in suburban areas travel by air not in spite of the fact that they have a car but for the reason that they have a car which makes it convenient for them to reach the airport. While there is competition between travel by air and travel by auto, the two may also be complementary.

TABLE III-27

USE OF AIR, RAIL, BUS AND AUTO BY CAR OWNERSHIP
(Percentage distribution of adults)

Use of air	All adults	Number of cars owned			
		None	One car	Two cars	Three or more cars
<u>Took one or more air trips last year</u>	<u>11</u>	<u>7</u>	<u>10</u>	<u>13</u>	<u>19</u>
For business reasons	3	1	3	4	3
For non-business reasons	7	6	6	8	14
For both business and non-business reasons	1	*	1	1	2
<u>Did not take an air trip last year</u>	<u>89</u>	<u>93</u>	<u>90</u>	<u>87</u>	<u>81</u>
Total	100	100	100	100	100
<u>Use of rail</u>					
<u>Took one or more rail trips last year</u>	<u>7</u>	<u>9</u>	<u>6</u>	<u>8</u>	<u>9</u>
For business reasons	1	1	1	2	2
For non-business reasons	6	8	5	6	7
For both business and non-business reasons	*	*	*	*	*
<u>Did not take a rail trip last year</u>	<u>93</u>	<u>91</u>	<u>94</u>	<u>92</u>	<u>91</u>
Total	100	100	100	100	100

TABLE III- 27 continued - USE OF AIR, RAIL, BUS AND AUTO BY CAR OWNERSHIP

Use of bus	All adults	Number of cars owned			
		None	One car	Two cars	Three or more cars
<u>Took one or more bus trips last year</u>	<u>9</u>	<u>17</u>	<u>7</u>	<u>6</u>	<u>7</u>
For business reasons	1	1	1	1	*
For non-business reasons	8	16	6	5	7
For both business and non-business reasons	*	*	*	*	*
<u>Did not take a bus trip last year</u>	<u>91</u>	<u>83</u>	<u>93</u>	<u>94</u>	<u>93</u>
Total	100	100	100	100	100
<u>Use of auto</u>					
<u>Took one or more auto trips last year</u>	<u>64</u>	<u>33</u>	<u>67</u>	<u>79</u>	<u>76</u>
For business reasons	3	1	3	5	3
For non-business reasons	54	30	56	65	66
For both business and non-business reasons	7	2	8	9	7
<u>Did not take an auto trip last year</u>	<u>36</u>	<u>67</u>	<u>33</u>	<u>21</u>	<u>24</u>
Total	100	100	100	100	100
Number of adults	5328	927	3037	1190	172

* Less than one-half of one per cent.

IV. Recent Trips by Air, Rail, Bus and Auto

In both spring and fall waves of interviews respondents were asked about the details of the most recent auto trip by any member of their family if there had been one or more auto trips in the twelve months prior to interview. They were also asked about the most recent trip by air, rail, or bus by any member of their family if there had been such a trip in the preceding year. This chapter reports the results of the questions about these trips.

It should be kept in mind that the most recent trip is not necessarily typical of all trips. Trips by frequent travelers are likely to have different characteristics from trips by infrequent travelers, but only the most recent trip by any traveler is considered in the two waves of interviews. The telephone reinterviews covering trips by frequent travelers from May to August are intended to shed light on the extent of this bias. Data from the reinterviews appear throughout the first portion of the chapter immediately following the data on most recent trips.

In this chapter information is presented on the following topics, the mode of transportation used being kept separate throughout: miles to most distant place, number of people who went on the trip, number of children who went, length of time away, purpose, whether other modes could conveniently have been used, which mode was cheapest, the preferred mode if cost had been the same, and the use of rented autos in connection with a trip by common carrier. The final section of the chapter is devoted to a special analysis of non-business trips to places 500 miles away by air or auto.

A. Distance traveled

Trips by automobile tend to be short (Table IV-1). Over 40 per cent of business trips by auto and of non-business trips by auto were to places 100-199 miles away. About six auto trips out of ten were to points less than 300 miles away. About one trip out of twenty, however, is to a place 1500 miles

TABLE IV-1

MILES TO MOST DISTANT PLACE REACHED ON MOST RECENT TRIP
(Percentage distribution of trips)

Distance (miles)	Most recent trip							
	Auto		Air		Rail		Bus	
	Business	Non-business	Business	Non-business	Business	Non-business	Business	Non-business
100-199	43	41	6	4	17	22	46	38
200-299	18	19	17	10	13	12	30	15
300-399	7	13	7	7	4	15	6	12
400-499	6	6	8	6	29	7	3	8
500-749	12	8	9	11	8	5	6	9
750-999	4	3	13	10	21	6	6	3
1000-1499	4	4	15	15	4	14	*	6
1500 miles and over	6	5	22	36	4	16	3	5
Not ascertained	*	1	3	1	*	3	*	4
Total	100	100	100	100	100	100	100	100
Number of trips	266	1555	169	168	24	111	31	175

* Less than one-half of one per cent.

or more away. This statement is true both of business and non-business trips by auto, and, in general the length of these two types of trips is remarkably similar.

It is unusual for air trips to be less than 200 miles. Non-business air trips tend to be even longer than business air trips. About 36 per cent of non-business air trips were to points 1500 miles away or more, compared to 22 per cent of the business air trips. On the other hand, one business air trip out of three was to a destination 200 to 499 miles away, compared to about 23 per cent of the non-business air trips.

Non-business rail trips tend to spread out through the range of distances. About 30 per cent of these trips were to distances of 1000 miles away or more. On the other hand 22 per cent of the non-business rail trips were to places between 100-199 miles away. Business rail trips have become sufficiently unusual so that only 24 were reported in the interviews and generalizations must be made with corresponding caution. It does appear, however, that business rail trips to places 1000 miles or more away are rare and that non-business rail trips are in general longer than business rail trips just as non-business air trips are longer on the average than business air trips.

The distribution for bus trips is similar to that for automobile travel. Business trips by bus appear somewhat shorter than business trips by automobile, while non-business trips by bus are about the same length as non-business trips by auto or, if anything, the bus trips are on the average a little longer.

Data from the telephone reinterviews are shown in Table IV-1a. These people were selected for reinterview, it will be recalled, because they were frequent travelers in the twelve months ending with the first interview in the spring. Enough information was obtained to permit tabulation separately of business and non-business auto trips, and air trips with business and non-business trips combined. Only a handful of trips by rail or bus were

TABLE IV-1a

MILES TO MOST DISTANT PLACE REACHED ON THE TRIP^a
 (Percentage distribution of summer trips by frequent travelers)

Distance (miles)	Mode used		
	Auto		Air
	Business	Non-business	Business and non-business
100 - 199	51	53	16
200 - 299	24	20	30
300 - 399	3	10	11
400 - 499	18	5	14
500 - 749	3	6	5
750 - 999	*	2	8
1000 - 1499	1	1	5
1500 and over	*	3	11
Not ascertained	*	*	*
Total	100	100	100
Number of trips	95	299	37

* Less than one-half of one per cent.

^a Based on reinterviews by telephone, covering June-August, 1962, with 224 families who reported 10 man-trips or more in the twelve months ending in May, 1962.

obtained, too few to permit tabulation. Do the data in Table IV-1a suggest that the information about the most recent trips reported in Table IV-1 is unrepresentative of all trips? The answer to this question is unequivocal: the trips by the frequent travelers tend to be shorter. Of the business auto trips taken by the frequent travelers in the summer about 75 per cent were to destinations less than 300 miles away, compared to 61 per cent of the business auto trips reported in Table IV-1. Of the non-business auto trips, 73 per cent of those by frequent travelers were to destinations under 300 miles away, compared to 60 per cent of those which were reported as most recent trips. Forty-six per cent of the air trips by the frequent travelers were to destinations under 300 miles away, compared to 23 per cent of the business air trips and 14 per cent of the non-business air trips about which information was obtained in the sequence of questions on the most recent trip. People who travel frequently tend to travel to places relatively near at hand. About 17 per cent of the most recent auto trips were for business reasons compared to 24 per cent of the auto trips taken by frequent travelers. Business trips form a larger proportion of all trips than they form of the most recent trips.

B. The people who went

There are sharp differences from one mode of transportation to another and from business to non-business travel in the number of people who went on the most recent trip. It is rare for people to take non-business auto trips by themselves. Only 9 per cent of the most recent trips by auto for non-business reasons involved a single person. A party of two, three, or four is typical. About one third of the business auto trips, however, involves only a single person, another third of the trips involves two people, and the remainder, three or more. (Table IV-2)

TABLE IV-2

TOTAL NUMBER OF PEOPLE WHO WENT ON MOST RECENT TRIP
(Percentage distribution of trips)

Total number of people	Most recent trip							
	Auto		Air		Rail		Bus	
	Business	Non-business	Business	Non-business	Business	Non-business	Business	Non-business
One	32	9	71	63	83	49	72	56
Two	34	32	16	23	13	30	10	21
Three	14	20	2	5	*	6	6	8
Four	8	17	1	1	*	5	3	2
Five	5	9	*	2	4	1	*	*
Six	2	4	1	1	*	*	3	*
Seven	1	2	2	*	*	2	*	*
Eight or more	1	1	1	1	*	2	6	3
Not ascertained	<u>3</u>	<u>6</u>	<u>6</u>	<u>4</u>	<u>*</u>	<u>5</u>	<u>*</u>	<u>10</u>
Total	100	100	100	100	100	100	100	100
Number of trips	266	1555	169	168	24	111	31	175

* Less than one-half of one per cent.

TABLE IV-2a

TOTAL NUMBER OF PEOPLE WHO WENT ON THE TRIP^a
 (Percentage distribution of summer trips by frequent travelers)

<u>Number of people</u>	<u>Mode used</u>		
	<u>Auto</u>		<u>Air</u>
	<u>Business</u>	<u>Non-business</u>	<u>Business and non-business</u>
One	77	13	59
Two	20	26	22
Three	2	19	10
Four	*	25	3
Five	1	7	3
Six	*	4	*
Seven	*	5	*
Eight or more	*	1	3
Not ascertained	<u>*</u>	<u>*</u>	<u>*</u>
Total	100	100	100
Number of trips	95	299	37

* Less than one-half of one per cent.

^a Based on reinterviews by telephone, covering June-August, 1962, with 224 families who reported 10 man-trips or more in the twelve months ending in May, 1962.

Most business trips by common carrier involve only a single person. Seven out of ten of the business excursions by air were made by single people. The proportion traveling alone by rail and bus is similar. Half or somewhat more than half of the non-business trips by air, rail, and bus involve a single person only. Roughly 20 to 30 per cent of these trips involve two people. It is unusual, however, for groups of more than two to take non-business trips by any one of the common carriers. Roughly one excursion out of ten involves three or more people. More than half of the non-business trips by auto involve three or more people.

As far as non-business travel by auto is concerned, the number who went on summer trips by frequent travelers is about the same as the number of people who went on the most recent trip. People who travel frequently on business by auto, however, are more likely to travel alone. Fully 77 per cent of these trips involve a single person only. As far as air travel is concerned, there does not seem to be any large difference between the number of people who went on the summer trips by frequent travelers and the number who went on the trips reported in the previous table.

C. Number of children who went

The number of children under 12 who went on the most recent trip is shown in Table IV-3. This breakdown by age is intended to relate the data on the size of the party to fare structures of common carriers. Occasionally children do go along on business trips, especially on business trips by automobile, but the main interest is in the number of children who participate in non-business trips. About one non-business auto trip out of four involves children. Most often there is one child or two children in the age range under discussion. The proportion of non-business excursions by common carrier which involve children is less. Roughly one out of ten involves children.

People who travel frequently on business by auto practically never take

TABLE IV-3

NUMBER OF CHILDREN, AGED 2-11, WHO WENT ON MOST RECENT TRIP
(Percentage distribution of trips)

Number of children	Most recent trip							
	Auto		Air		Rail		Bus	
	Business	Non-business	Business	Non-business	Business	Non-business	Business	Non-business
None	87	67	95	89	100	82	94	81
One	4	10	1	3	*	5	*	6
Two	4	9	*	3	*	5	3	3
Three	2	4	*	1	*	1	*	*
Four	*	2	1	*	*	*	*	*
Five	*	*	*	*	*	1	*	*
Six	*	*	*	*	*	*	*	*
Seven	*	*	*	*	*	*	*	*
Eight or more	*	*	*	*	*	*	*	*
Not ascertained	3	8	3	4	*	6	3	10
Total	100	100	100	100	100	100	100	100
Number of trips	266	1555	169	168	24	111	31	175

* Less than one-half of one per cent.

TABLE IV-3a

NUMBER OF CHILDREN AGED 2-11 WHO WENT ON THE TRIP^a
 (Percentage distribution of summer trips by frequent travelers)

<u>Number of children</u>	<u>Mode used</u>		
	<u>Auto</u>		<u>Air</u>
	<u>Business</u>	<u>Non-business</u>	<u>Business and non-business</u>
None	99	58	92
One	1	15	3
Two	*	17	5
Three	*	6	*
Four	*	2	*
Five	*	2	*
Six	*	*	*
Seven	*	*	*
Eight or more	*	*	*
Not ascertained	*	*	*
Total	100	100	100
Number of trips	95	299	37

* Less than one-half of one per cent.

^a Based on reinterviews by telephone, covering June-August, 1962, with 224 families who reported 10 man-trips or more in the twelve months ending in May, 1962.

their children along. Non-business auto trips by frequent travelers, however, are more likely to involve children than are other non-business auto trips. Of such trips, 42 per cent involve one or more children aged 2-11. Air trips by frequent air travelers tend to involve children as much as the most recent trips do.

D. Length of time away

There is a difference between trips by auto and trips by common carrier with regard to the length of time away from home. More auto trips than trips by common carrier are completed on the same day on which they are begun (Table IV-4). About one business trip out of five by auto to a destination 100 miles or more away is completed on the same day on which it is started. About 72 per cent of business auto trips are completed in less than a week. Over 70 per cent of non-business auto trips are also completed in less than seven days. Most of the auto trips by frequent travelers, as one might expect, don't last more than a week. There is an obvious limit on how many lengthy trips can be taken by one individual in one year.

Turning again to the data on the most recent trip, there is evidence of a difference between business and non-business travel by common carrier in the number of trips lasting eleven days or more. Of the business trips by air, for example, 11 per cent lasted eleven days or more while 38 per cent of the non-business trips lasted eleven days or more. Of the business trips by rail, only 4 per cent were for more than eleven days, in contrast to 31 per cent of the non-business trips by rail. Travelers by bus show a similar difference although the proportion taking non-business trips which last for a long period is smaller. Twelve per cent of the business trips by bus were for more than eleven days compared to 20 per cent of the non-business trips by bus.

The data on air travel point to the conclusion that people who travel frequently by common carrier tend to be away for a shorter time than those

TABLE IV-4

LENGTH OF TIME AWAY ON MOST RECENT TRIP
(Percentage distribution of trips)

Length of time away	Most recent trip							
	Auto		Air		Rail		Bus	
	Business	Non-business	Business	Non-business	Business	Non-business	Business	Non-business
Back the same day	19	12	7	3	8	5	16	7
1-2 days	23	25	27	14	17	13	16	13
3-6 days	30	34	42	27	50	31	43	30
7-10 days	12	14	13	12	13	19	13	25
11-20 days	6	9	3	15	4	14	6	7
21-35 days	3	3	4	11	*	11	*	7
36 days or more	5	2	4	12	*	6	6	6
Moved here; one way trip	1	*	*	4	4	*	*	1
Not ascertained	<u>1</u>	<u>1</u>	<u>*</u>	<u>2</u>	<u>4</u>	<u>1</u>	<u>*</u>	<u>4</u>
Total	100	100	100	100	100	100	100	100
Number of trips	266	1555	169	168	24	111	31	175

* Less than one-half of one per cent.

TABLE IV- 4a
 LENGTH OF TIME AWAY ON THE TRIP^a
 (Percentage distribution of summer trips by frequent travelers)

<u>Length of time away</u>	<u>Mode used</u>		
	<u>Auto</u>		<u>Air</u>
	<u>Business</u>	<u>Non-business</u>	<u>Business and non-business</u>
Back same day	16	10	11
1 - 2 days	8	36	46
3 - 6	70	34	27
7 -10	6	12	8
11 -20	*	6	5
21 -35	*	1	*
36 and over	*	1	3
Moved here; one-way trip	*		*
Not ascertained	*	*	*
Total	100	100	100
Number of trips	95	299	37

* Less than one-half of one per cent.

^a Based on reinterviews by telephone, covering June-August, 1962, with 224 families who reported 10 man-trips or more in the twelve months ending in May, 1962.

who take only a single trip. Eighty four per cent of the frequent travelers' trips in the summer were over within a week compared to less than half of the non-business air trips reported as "most recent trips". Trips by frequent travelers in general tend to be for shorter lengths of time than trips by infrequent travelers, and data on the most recent trip, which understates the importance of the frequent travelers, will tend to overestimate the length of time people are away.

E. Convenience of other modes

To what extent do people actually have a choice regarding the means of transportation they use on their trips? People were asked with regard to each trip if they could have reached their destination conveniently by each of the three modes of transportation which they did not use.

The results, which appear in Table IV-5, suggest that frequently people do not have a free choice of mode. On trips by auto both for business and non-business purposes, just over half report that they could not have reached their destination conveniently by air on the most recent trip. The proportion who could not have reached their destination conveniently by air is even higher for the summer trips by frequent travelers. On 79 per cent of the business auto trips in this category the individual could not have reached his destination conveniently by air according to the report to the interviewer. The same is true of 64 per cent of the non-business trips by frequent travelers (Table IV-5a). The results concerning the possibility of using rail instead of auto are rather similar to the results for air. Just over half say they couldn't have reached their destination conveniently by rail on a most recent trip, and the percentage is substantially higher for the trips by frequent travelers. The results for bus travel are very different. On the most recent business trip by auto about two-thirds say they could have reached their destination conveniently by bus. The same proportion was reported for non-business auto trips. But among the frequent

TABLE IV-5
 COULD YOU HAVE GOTTEN WHERE YOU WANTED TO GO CONVENIENTLY
 BY OTHER MODES ON MOST RECENT TRIP?^a
 (Percentage distribution of trips)

Convenience of alternative modes	Most recent trip							
	Auto		Air		Rail		Bus	
	Business	Non-business	Business	Non-business	Business	Non-business	Business	Non-business
Could have reached destination conveniently by <u>air</u>	45	40	-	-	64	60	52	47
Could not have reached destination conveniently by <u>air</u>	54	57			29	38	48	46
Not ascertained	<u>1</u>	<u>3</u>			<u>7</u>	<u>2</u>	<u>*</u>	<u>7</u>
Total	100	100			100	100	100	100
Could have reached destination conveniently by <u>rail</u>	45	44	60	56			45	55
Could not have reached destination conveniently by <u>rail</u>	53	53	37	38			52	37
Not ascertained	<u>2</u>	<u>3</u>	<u>3</u>	<u>6</u>			<u>3</u>	<u>8</u>
Total	100	100	100	100			100	100

TABLE IV-5 continued - COULD YOU HAVE GOTTEN WHERE YOU WANTED TO GO CONVENIENTLY
BY OTHER MODES ON MOST RECENT TRIP?^a

Convenience of alternative modes	Most recent trip							
	Auto		Air		Rail		Bus	
	Business	Non-business	Business	Non-business	Business	Non-business	Business	Non-business
Could have reached destination conveniently by <u>bus</u>	65	65	60	58	71	79	-	-
Could not have reached destination conveniently by <u>bus</u>	33	32	35	35	29	18		
Not ascertained	<u>2</u>	<u>3</u>	<u>5</u>	<u>7</u>	<u>*</u>	<u>3</u>		
Total	100	100	100	100	100	100		
Number of trips	266	1555	169	168	24	111	31	175

* Less than one-half of one per cent.

^a The question was: "Could you have gotten where you wanted to go conveniently: by air? by rail? by bus?"

TABLE IV-5a

COULD YOU HAVE GOTTEN WHERE YOU WANTED TO GO CONVENIENTLY BY OTHER MODES^a
 (Percentage distribution of summer trips by frequent travelers)

	Mode used		<u>Air</u> Business and non-business
	Auto		
<u>Convenience of alternative modes</u>	<u>Business</u>	<u>Non-business</u>	
Could have reached destination conveniently by <u>air</u>	21	36	
Could not have reached destination conveniently by <u>air</u>	<u>79</u>	<u>64</u>	
Total	100	100	
Could have reached destination conveniently by <u>rail</u>	21	31	62
Could not have reached destination conveniently by <u>rail</u>	<u>79</u>	<u>69</u>	<u>38</u>
Total	100	100	100
Could have reached destination conveniently by <u>bus</u>	30	53	62
Could not have reached destination conveniently by <u>bus</u>	<u>70</u>	<u>47</u>	<u>38</u>
Total	100	100	100
Number of trips	95	299	37

^a Based on reinterviews by telephone, covering June-August, 1962, with 224 families who reported 10 man-trips or more in the twelve months ending in May, 1962.

travelers by auto on business the possibilities of using the bus are much less important. Seventy per cent say they could not have reached their destination conveniently by bus. Of the non-business auto trips by frequent travelers about half were to destinations which could have been reached conveniently by bus and about half to destinations which could not have been reached.

About 60 per cent of the trips by air were to destinations which could have been reached conveniently by rail and about 60 per cent to destinations which could have been reached conveniently by bus. This proportion is roughly constant whether one considers business or non-business travel and whether one considers the most recent trip or summer trips by frequent travelers. Of the most recent trips by rail, about 60-64 per cent were to destinations which could have been reached conveniently by air, while about 71-79 per cent could have been reached conveniently by bus. Of the most recent bus trips, about half were to points which could have been reached by air conveniently and, similarly, about half were to points which could have been reached conveniently by rail.

These tables are perhaps most interesting for the light that they shed on frequent travel by auto on business. People may take an occasional trip by auto to a destination which could have been reached conveniently in some other way, but frequent travel by auto on business is to destinations which are otherwise not easily accessible.

F. Which mode would have been cheapest

For the most recent trip by automobile, nearly nine times out of ten in the opinion of respondents, the automobile was the cheapest way to go (Table IV-6). This result is in contrast to the findings for the common carriers. For only three air trips out of ten was air the cheapest form of transportation. The proportion is about the same for rail. Of those who went by bus, however, about six out of ten report that bus was the cheapest and almost

TABLE IV-6

WOULD AIR, RAIL, BUS, OR AUTO HAVE BEEN THE CHEAPEST?
(Percentage distribution of trips)

<u>Cheapest mode of transportation</u>	<u>Most recent trip by auto</u>	<u>Most recent trip by common carrier</u>		
		<u>Air</u>	<u>Rail</u>	<u>Bus</u>
Air	1	29	3	2
Rail	2	1	25	1
Bus	8	26	36	61
Auto	86	34	29	32
Not ascertained	<u>3</u>	<u>10</u>	<u>7</u>	<u>4</u>
Total	100	100	100	100
Number of trips	1821	337	135	206

TABLE IV-6a

WOULD AIR, RAIL, BUS, OR AUTO HAVE BEEN THE CHEAPEST^a
 (Percentage distribution of summer trips by frequent travelers)

<u>Cheapest mode of transportation</u>	<u>Mode used</u>		<u>Air Business and non-business</u>
	<u>Auto</u>		
	<u>Business</u>	<u>Non-business</u>	
Air	1	*	27
Rail	3	1	*
Bus	3	8	41
Auto	93	89	27
Not ascertained	<u>*</u>	<u>2</u>	<u>5</u>
Total	100	100	100
Number of trips	95	299	37

* Less than one-half of one per cent.

^a Based on reinterviews by telephone, covering June-August, 1962, with 224 families who reported 10 man-trips or more in the twelve months ending in May, 1962.

all the remainder say the automobile would have been the cheapest form of transportation. Information obtained concerning the summer trips by frequent travelers as shown in Table IV-6a indicates that these trips are not very different from the most recent trips with regard to perceived relative costs.

G. Preferred mode

Eight out of ten of the most recent auto trips would have been taken by auto even if cost had been the same no matter what form of transportation was chosen. (Table IV-7). Fourteen per cent would have been taken by air, however, if the cost had been the same. While 14 per cent of all automobile trips is a small proportion of all automobile travel, the total volume of auto travel is so large that this number of trips is substantial compared to the actual present volume of travel by air. With regard to recent air trips respondents report almost invariably that if the cost had been a matter of no concern the trip would still have been made by air. If cost had been no object, 63 per cent of the rail trips would have been made still by rail, but 24 per cent would have been made by air, and 11 per cent by auto. If cost had been no object about one third of the bus travelers would have traveled by air or by auto, and an additional 8 per cent would have been lost to rail.

The expressions of opinion on this topic concerning the summer trips by frequent travelers seem to be very similar to those made concerning the most recent trip (Table IV-7a). The answers to this question are interesting in that they suggest that people are fully aware of differences in cost from one method of transportation to another, and that they frequently are consciously choosing a particular method of transportation for purposes of economy. People may not be informed about price, but the fact that roughly four rail and bus trips out of ten would have been taken by some other method of transportation if cost had been no object suggests that people do think about

TABLE IV-7

PREFERRED MODE OF TRAVEL IF COST HAD BEEN THE SAME
(Percentage distribution of trips)

<u>Preferred mode</u>	<u>Most recent trip by auto</u>	<u>Most recent trip by common carrier</u>		
		<u>Air</u>	<u>Rail</u>	<u>Bus</u>
Air	14	93	24	17
Rail	3	*	63	8
Bus	2	*	1	55
Auto	80	3	11	16
Not ascertained	<u>1</u>	<u>4</u>	<u>1</u>	<u>4</u>
Total	100	100	100	100
Number of trips	1821	337	135	206

* Less than one-half of one per cent.

TABLE IV-7a

PREFERRED MODE IF COST HAD BEEN THE SAME^a
 (Percentage distribution of summer trips by frequent travelers)

Preferred mode	Mode used		
	Auto		Air
	Business	Non-business	Business and non-business
Air	12	11	100
Rail	*	1	*
Bus		*	*
Auto	86	88	*
Not ascertained	<u>2</u>	<u>*</u>	<u>*</u>
Total	100	100	100
Number of trips	95	299	37

* Less than one-half of one per cent.

^a Based on reinterviews by telephone, covering June-August, 1962, with 224 families who reported 10 man-trips or more in the twelve months ending in May, 1962.

price and do govern their behavior accordingly. Further observations on the importance of price appear in chapter VIII.

H. Use of rented autos

Of the most recent trips by air, 11 per cent involve the use of a rented car. This proportion falls near the vanishing point for rail and for bus (Table IV-8). The frequent travelers seem to be more likely to rent a car. Of the small sample of summer air trips by frequent travelers, one trip out of four involved use of a rented car.

I. Non-business trips to places 500 miles away by air or auto: a special analysis

In the competition between travel by air and travel by automobile, one of the most interesting portions of the market concerns trips to places 500 miles away or more for non-business purposes. This section is concerned with an analysis of the choice between air and auto for such trips based on the data about the most recent trips. By focusing attention on this group of trips, in effect one can hold constant the purpose of the trip and the length of the trip, and consider what other variables may influence the choice of means of transportation.

Perhaps the most powerful single variable in explaining whether people travel by air or by auto on a long non-business trip is the total number of people in the party. If there is only one person involved, the chances are seven out of ten that the trip will be by air. If there are two people, the chances fall to about two out of ten that the trip will be by air. For parties of three or more, the chances that the trip will be by air are less than one out of ten. (Table IV-9). In view of other evidence of the importance that people attach to price, it seems reasonable to interpret this result in terms of the difference in cost of travel for parties of different size. For a single person, the cost comparison between air and auto is very different from the cost comparison for a party of several people.

TABLE IV-8

USE OF RENTED AUTOS ON MOST RECENT TRIP BY COMMON CARRIER
(Percentage distribution of common carrier trips)

<u>Use of rented auto</u>	<u>Most recent trip by common carrier</u>		
	<u>Air</u>	<u>Rail</u>	<u>Bus</u>
Rented a car	11	1	*
Did not rent a car	86	96	97
Not ascertained	<u>3</u>	<u>3</u>	<u>3</u>
Total	100	100	100
Number of trips	337	135	206

* Less than one-half of one per cent.

TABLE IV-9

TOTAL NUMBER OF PEOPLE WHO WENT ON MOST RECENT LONG DISTANCE TRIP
BY AIR OR AUTO
(Percentage distribution of most recent non-business
trips of 500 miles or more by air or auto)

Mode used	All trips ^a	Total number of people				
		One	Two	Three	Four	Five or more
Air	28	71	22	8	*	11
Auto	72	29	78	92	100	89
Total	100	100	100	100	100	100
Number of trips	427	105	130	71	53	46

* Less than one-half of one per cent.

^a Included 22 trips for which total number of people was not ascertained.

The length of time people will be away is less important in determining whether they will travel by air or by auto. The data in Table IV-10 suggest that the proportion who travel by air will be somewhat higher if the trip is less than one week or as much as three weeks or more in duration than if the trip is of intermediate duration. It is quite possible that the very long trips are for very long distances, and that there may be some difference between the competitive position of the two modes in favor of air for the longest distances.

Most of the auto travelers could have reached their destination conveniently by air, as is shown in Table IV-11. Only about 28 per cent of them, according to the respondents, could not have gone conveniently by air.

When people are asked which method of transportation would have been the cheapest for this trip, they choose overwhelmingly the method of transportation actually employed (Table IV-12). Of those who say that air was the cheapest form of transportation, 83 per cent went by air and only 17 per cent by auto. Of those who say that auto was the cheapest form of transportation, 88 per cent went by auto and only 12 per cent by air.

Further evidence of the importance of cost in choice of mode appears in Table IV-13. Of those who preferred air if costs were identical, only 59 per cent went by air while 41 per cent went by auto. In other words, four out of ten who took this type of trip and preferred air actually went by auto. Of those who preferred auto, however, almost all actually went by automobile.

An indirect measure of people's willingness to travel by air is their prior experience as an air traveler. Earlier investigations have shown a strong and persistent relation between experience as an air traveler and willingness to travel by air. Table IV-14 again indicates that people who have had the experience of taking an air trip are more likely to choose air over auto than people who have not had that experience.

TABLE IV-10

LENGTH OF TIME AWAY ON LONG DISTANCE AIR AND AUTO TRIPS
 (Percentage distribution of most recent non-business trips
 of 500 miles or more by air or auto)

<u>Mode used</u>	<u>All^a</u>	<u>Length of time away</u>							<u>Moved; one way trip</u>
		<u>Back same day</u>	<u>1-2 days</u>	<u>3-6 days</u>	<u>7-10 days</u>	<u>11-20 days</u>	<u>21-35 days</u>	<u>36 plus</u>	
Air	28	(Too few cases		29	15	11	33	42	(Too few
Auto	72	to		71	85	89	67	58	cases to
Total	100	percentagize)		100	100	100	100	100	percent- agize)
Number of trips	427	1	18	92	98	102	58	43	10

^a Includes 15 trips for which length of time away was not ascertained.

TABLE IV-11

COULD YOU HAVE GOTTEN WHERE YOU WANTED TO GO
CONVENIENTLY BY OTHER MODES?
(Percentage distribution of most recent non-business
trips of 500 miles or more by air or auto)

Convenience of alternative modes	Mode used	
	Air	Auto
<u>Air</u>		
Convenient	-	72
Not convenient	-	<u>28</u>
Total		100
<u>Rail</u>		
Convenient	61	68
Not convenient	<u>39</u>	<u>32</u>
Total	100	100
<u>Bus</u>		
Convenient	58	76
Not convenient	<u>42</u>	<u>24</u>
Total	100	100
Number of trips	121	306

TABLE IV-12

WOULD AIR, RAIL, BUS, OR AUTO HAVE BEEN THE CHEAPEST^a
(Percentage distribution of most recent non-business
trips of 500 miles or more by air or auto)

Mode used	All trips ^b	Cheapest form of transportation			
		Air	Rail	Bus	Auto
Air	28	83	(Too few cases to percentagize)	48	12
Auto	72	17		52	88
Total	100	100		100	100
Number of trips	427	48	10	65	278

^a The question was: "For this trip would air, rail, bus or auto have been cheapest?"

^b Includes 26 trips for which the cheapest mode was not given.

TABLE IV-13

PREFERRED MODE IF COST HAD BEEN THE SAME^a
 (Percentage distribution of most recent non-business
 trips of 500 miles or more by air or auto)

Mode used	All trips ^b	Preferred mode			
		Air	Rail	Bus	Auto
Air	28	59	(Too few cases to percentagize)	(Too few cases to percentagize)	4
Auto	72	41			96
Total	100	100			100
Number of trips	427	163	9	6	229

^a The question was: "If the cost had been the same no matter how you went, what kind of transportation would you have taken on this trip?"

^b Includes 20 trips for which the preferred mode was not ascertained.

TABLE IV-14

LONG DISTANCE AIR AND AUTO TRIPS BY EXPERIENCE AS AIR TRAVELER
(Percentage distribution of most recent non-business
trips of 500 miles or more by air or auto)

<u>Mode used</u>	<u>All trips</u>	<u>Experience as an air traveler</u>	
		<u>Have taken an air trip</u>	<u>Have not taken an air trip^a</u>
Air	28	39	19
Auto	72	61	81
Total	100	100	100
Number of trips	427	199	224

^a This column includes both people who were not experienced and people whose experience was not ascertained. If only those who in fact never had taken an air trip were included, the proportion who went by air would be lower than is shown.

V. Experience as an Air Traveler

Previous research has shown and the present survey confirms that people with experience as air travelers are much more likely to travel by air than people who never have taken an air trip. It is, therefore, a matter of interest to measure the rate of growth of the proportion of the population who are experienced air travelers. It is also of interest to examine the proportion of experienced travelers in different segments of the population.

A. Trend in proportion of population who are experienced

The proportion of the adult population who had taken an air trip at the time of interview in 1962 was as follows:

Experienced fliers at time of interview	<u>36.9</u>
Took first trip during the preceding year	2.5
Experienced before the year began	32.7
Not ascertained when first air trip was taken	1.7
Never flown	<u>63.1</u>
Total	100.0

Taking an average between the dates of the two waves of interviews, the above estimate applies to the middle of 1962. In 1955 the proportion of adults who were experienced fliers was about 25 per cent, implying an increase of about 12 per cent over the seven year period 1955-1962, or an increase of a little under 2 per cent a year on the average. A net increase of this amount implies a somewhat larger proportion of the population are taking their first trip each year since some experienced air travelers are lost by death.

B. Experience within income groups

The remainder of this chapter is concerned with the relation between experience as an air traveler and three other basic determinants of the pro-

pensity to fly: family income, age, and stage in the family life cycle. Tables V-1 to V-3 show the per cent experienced in each population group at the beginning of the year covered by the survey. As indicated in the tabulation in the preceding section, the per cent of experienced fliers would have been slightly higher if measured at the close of the year. The percentage at the beginning of the year is the relevant statistic for explaining behavior during the year.

There is a strong positive correlation between family income and experience as an air traveler, as is shown in Table V-1. Of those with incomes under \$2000, only about one in seven has taken an air trip; while of those with incomes of \$15,000 or more, two out of three are experienced air travelers. Of those in the middle range of income, say \$5000-5999, about three out of ten are experienced fliers. The high frequency of flying among the upper income groups previously discussed should be thought of as reflecting both the larger amount of money at their disposal and the increased willingness to fly resulting from familiarity with air travel.

C. Experience within age groups

There is also a relation between the age of an adult and whether or not he has experience as an air traveler as shown in Table V-2. The newness of air travel is illustrated by the fact that those in the middle and older age groups are less likely to have taken an air trip than those aged under 35 even though the older adults have had more years in which to take their first trip. The age group with the most experience are those aged 25-34 at the time of this survey in the spring of 1962. The high proportion of experienced travelers in the age group 25-34 points to a long run growth in the demand for air travel.

Systematic comparison of these results with findings from other surveys is beyond the scope of this report. Earlier data may be found in The Travel Market 1959-1960, especially pp. 34-40.

TABLE V- 1
EXPERIENCE AS AN AIR TRAVELER BY FAMILY INCOME
(Percentage distribution of respondents)

Experience as an air traveler	All respondents ^a	Family income								
		Under \$2000	\$2000 -2999	\$3000 -3999	\$4000 -4999	\$5000 -5999	\$6000 -7499	\$7500 -9999	\$10,000 -14,999	\$15,000 and over
Have taken an air trip	33	16	21	26	28	29	34	47	53	66
Have never taken an air trip	66	83	79	72	71	71	64	51	46	31
Not ascertained	<u>1</u>	<u>1</u>	<u>*</u>	<u>2</u>	<u>1</u>	<u>*</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>3</u>
Total	100	100	100	100	100	100	100	100	100	100
Number of respondents	2651	364	222	225	288	321	386	348	262	120

* Less than one-half of one per cent.

^a Includes 115 respondents for whom family income was not ascertained.

TABLE V-2

EXPERIENCE AS AN AIR TRAVELER BY AGE OF RESPONDENT
(Percentage distribution of respondents)

Experience as an air traveler	All respondents	Age of respondent					
		<u>18 - 24</u>	<u>25 - 34</u>	<u>35 - 44</u>	<u>45 - 54</u>	<u>55 - 64</u>	<u>65 +</u>
Have taken an air trip	33	28	44	39	30	29	23
Have never taken an air trip	66	72	54	60	69	70	76
Not ascertained	<u>1</u>	<u>*</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
Total	100	100	100	100	100	100	100
Number of respondents	2651	223	524	574	531	397	393

D. Experience by stage in the family life cycle

There is a substantial body of evidence to show that the choice between travel by auto and by common carrier is influenced by the number of people in the party. The stage of a family in the family life cycle is, therefore, of interest to the student of the travel market since the composition of the family determines the potential composition of the group taking a trip.

As shown in Table V-3, about 40 per cent of young, single people and young couples without children were experienced fliers as of the beginning of 1962. For married people with children at home the per cent is almost as high, 38 per cent. Older, married couples whose children have left home, who may be in a position financially to travel, are less likely to be experienced. Only 27 per cent of them had ever taken an air trip.

TABLE V-3

EXPERIENCE AS AN AIR TRAVELER BY STAGE IN THE FAMILY LIFE CYCLE
(Percentage distribution of respondents)

Experience as an air traveler	All respondents ^a	Stage in family life cycle				
		Young, single; young, married, no children	Married, children	Older, married, no children	Older, single	Other
Have taken an air trip	33	40	38	27	30	27
Have never taken an air trip	66	60	61	73	70	73
Not ascertained	<u>1</u>	<u>*</u>	<u>1</u>	<u>*</u>	<u>*</u>	<u>*</u>
Total	100	100	100	100	100	100
Number of respondents	2651	293	1222	643	379	107

* Less than one-half of one per cent.

^a Includes 7 respondents for whom stage in family life cycle was not ascertained.

VI. Rented Automobiles

People were asked in this survey whether the head of the family had ever rented a "drive-it-yourself" automobile. They were also asked, if the answer to the first question was affirmative, whether he was traveling on business, or for personal reasons, or whether he had rented cars on both kinds of trips. A question was also asked about the use of rented automobiles on the most recent trip by common carrier (see Table IV-8).

This chapter includes a report of the answers to the questions about whether people have ever rented automobiles shown separately for people classified by family income, stage in the family life cycle, and automobile ownership. The two concluding sections of the chapter concern respectively use of rented cars on the most recent air trip and use of rented cars by people living in suburban areas.

A. Use of rented cars by frequency of travel last year

The more people travel, the more likely they are to use rented cars. There is a strong relation between the number of trips taken last year by all modes of transportation and whether or not people have ever rented an automobile. Of those who took no trips last year, only 3 per cent had ever rented a car, while of those who took sixteen or more trips last year, 29 per cent had rented a car (Table VI-1).

B. Use of rented cars by family income

There is also a powerful relation between the income of the family and whether or not the head of the family has ever rented an automobile. Of those with family incomes under \$2000, only 2 per cent have ever rented an automobile; of those with family incomes over \$15,000, 45 per cent have rented an automobile. At this income level 14 per cent report that they have used an automobile both on business and on non-business trips. Of those with an income below \$7500 only 1 per cent report using an automobile for both types of trips.

TABLE VI-1

USE OF RENTED AUTOMOBILE BY FREQUENCY OF TRAVEL LAST YEAR
(Percentage distribution of respondents)

Use of rented automobile	All respondents ^a	Number of trips by all modes in last year				
		None	1 trip	2-4 trips	5-15 trips	16 or more trips
Have rented an automobile	<u>12</u>	<u>3</u>	<u>6</u>	<u>11</u>	<u>21</u>	<u>29</u>
Used on business trips	4	1	2	4	7	11
Used on non-business trips	6	2	4	6	9	11
Used on both business and non-business trips	2	*	*	1	5	7
Have never rented an automobile	<u>88</u>	<u>97</u>	<u>94</u>	<u>89</u>	<u>79</u>	<u>71</u>
Total	100	100	100	100	100	100
Number of respondents	2651	783	473	625	525	182

* Less than one-half of one per cent.

^a Includes 63 respondents for whom number of trips was not ascertained.

TABLE VI-2

USE OF RENTED AUTOMOBILE BY FAMILY INCOME
(Percentage distribution of respondents)

Use of rented automobile	All respondents ^a	Family income								
		Under \$2000	\$2000 -2999	\$3000 -3999	\$4000 -4999	\$5000 -5999	\$6000 -7499	\$7500 -9999	\$10,000 -14,999	\$15,000 or more
<u>Have rented an automobile</u>	<u>12</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>7</u>	<u>7</u>	<u>10</u>	<u>19</u>	<u>26</u>	<u>45</u>
Used on business trips	4	1	1	2	1	2	2	7	11	15
Used on non-business trips	6	1	1	1	5	5	7	9	9	16
Used on both business and non-business trips	2	*	1	1	1	*	1	3	6	14
<u>Have never rented an automobile</u>	<u>88</u>	<u>98</u>	<u>97</u>	<u>96</u>	<u>93</u>	<u>93</u>	<u>90</u>	<u>81</u>	<u>74</u>	<u>55</u>
Total	100	100	100	100	100	100	100	100	100	100
Number of respondents	2651	364	222	225	288	321	386	348	262	120

* Less than one-half of one per cent.

^a Includes 115 respondents for whom family income was not ascertained.

C. Use of rented cars by stage in the family life cycle

A third determinant of the use of rented automobiles is stage in the family life cycle. Older single people and older married people without children are less likely ever to have rented an automobile than those in the younger stages (Table VI-3). For purposes of this tabulation, "older" has been defined to mean people over 45 years of age. The fact that most bachelors, widows, and widowers over 45 have never rented a car may be explained in part by the reduced income which usually accompanies this stage in the family life cycle. Married couples without children or whose children have left home, however, are typically not under financial pressure. Their failure to rent cars cannot be explained away merely by their lower income. The implication is that there are differences in people's attitudes toward renting cars associated with their age with younger people more favorably disposed toward renting than those over 45.

D. Use of rented cars by car ownership

People who do not own cars are not likely to rent cars. As shown in Table VI-4 of those who did not own an automobile at the time of interview only 4 per cent had ever rented an automobile compared to 12 per cent of those who owned one automobile and 19 per cent of those who owned two cars at that time. (The estimate of 12 per cent of those who owned three cars is based on only 55 respondents.)

Is it reasonable to suppose, as the data suggest, that having a car in one's possession predisposes a person to rent an automobile? Owning a car may work in this direction by making people familiar with automobiles and confident of their ability to operate them. Car owners are likely to have valid licenses to drive, which are necessary for renters. Owning a car also may accustom people to the advantages of being in command of a vehicle. Thus, owning a car may predispose people to rent a car when they are in a situation in which they find it difficult to use their own car for some reason.

TABLE VI-3

USE OF RENTED AUTOMOBILE BY FAMILY LIFE CYCLE
(Percentage distribution of respondents)

Whether ever rented an automobile	All respondents ^a	Stage in family life cycle				
		Young, single; young, married, no children	Married, children	Older, married, no children	Older, single	Other
<u>Have rented an automobile</u>	<u>12</u>	<u>13</u>	<u>16</u>	<u>7</u>	<u>5</u>	<u>*</u>
Used on business trips	4	3	6	2	1	*
Used on non-business trips	6	8	7	4	4	*
Used on both business and non-business trips	2	2	3	1	*	*
<u>Have never rented an automobile</u>	<u>88</u>	<u>87</u>	<u>84</u>	<u>93</u>	<u>95</u>	<u>100</u>
Total	100	100	100	100	100	100
Number of respondents	2651	293	1222	643	379	107

* Less than one-half of one per cent.

^a Includes seven respondents for whom stage in family life cycle was not ascertained.

TABLE VI-4

USE OF RENTED AUTOMOBILE BY CAR OWNERSHIP
(Percentage distribution of respondents)

Use of rented automobile	All respondents	Number of cars owned			
		None	One	Two	Three or more
<u>Have rented an automobile</u>	<u>12</u>	<u>4</u>	<u>12</u>	<u>19</u>	<u>12</u>
Used on business trips	4	1	4	6	6
Used on non-business trips	6	3	6	8	2
Used on both business and non-business trips	2	*	2	5	4
<u>Have never rented an automobile</u>	<u>88</u>	<u>96</u>	<u>88</u>	<u>81</u>	<u>88</u>
Total	100	100	100	100	100
Number of respondents	2651	561	1518	515	55

* Less than one-half of one per cent.

E. Use of rented car on most recent air trip

As discussed in chapter IV, rented cars were used on 11 per cent of the recent trips by air but on practically no trips by other methods of transportation. What distinguishes the air trips when a rented car was used from the air trips which did not involve renting a car? In Table VI-5 use of rented car is related to the length of time away from home on the air trip. It appears that rented cars are not often used on very short trips. On those trips when the traveler was back the same day, or on those when the trip lasted one to two days, relatively few people rented a car. If the length of time away was either three to six days, or seven to ten days, 15 to 17 per cent rented an automobile. The data suggest that travelers who are away eleven or more days were less likely to rent a car than those away for intermediate periods, but the sample of trips of different lengths is small enough that this finding must be regarded as tentative.

F. Use of rented cars in suburban areas

The remainder of this chapter is devoted to a special analysis of people who live in the suburban portions of metropolitan areas. These people are more likely to have rented cars than the general population. In 17 per cent of these families the head has rented a car at some time in contrast to only 12 per cent of the population at large. Can this difference be attributed to the fact that people in suburban areas typically have higher incomes than the average for the population? Comparison of Tables VI-6 and VI-2 suggests that this interpretation may be correct. If attention is restricted to those within a given income group, for example, the income group from \$7500 to \$9999, of those in suburbs 18 per cent have rented an automobile, while of those in the entire sample, 19 per cent have rented an automobile. Similar comparisons for other income groups suggest the general result that people in suburbs do not rent cars more frequently than those in other areas once income has been taken into account.

TABLE VI -5

WHETHER RENTED AN AUTOMOBILE ON MOST RECENT AIR TRIP BY LENGTH OF TIME AWAY
(Percentage distribution of respondents who took an air trip in the last year)

Whether rented automobile on recent air trip	All respondents ^a	Length of time away				
		Back same day	1 - 2 days	3 - 6 days	7 - 10 days	11 or more days
Did rent a car	11	*	10	15	17	9
Did not rent a car	87	100	88	83	83	89
Not ascertained	<u>2</u>	<u>*</u>	<u>2</u>	<u>2</u>	<u>*</u>	<u>2</u>
Total	100	100	100	100	100	100
Number of respondents	337	16	68	116	42	84

* Less than one-half of one per cent.

^a Includes 3 respondents for whom length of time away was not ascertained and 8 respondents for whom the trip was one way.

TABLE VI-6

USE OF RENTED AUTOMOBILE BY FAMILY INCOME
(Percentage distribution of respondents who live in suburban areas)

Whether ever rented an automobile	All respondents ^a	Family income					
		Under \$3000	\$3000 -4999	\$5000 -5999	\$6000 -7499	\$7500 -9999	\$10,000 or more
<u>Have rented an automobile</u>	<u>17</u>	<u>2</u>	<u>4</u>	<u>4</u>	<u>13</u>	<u>18</u>	<u>36</u>
Used on business trips	4	*	*	2	3	7	9
Used on non-business trips	10	2	4	2	10	8	19
Used on both business and non-business trips	3	*	*	*	*	3	8
<u>Have never rented an automobile</u>	<u>83</u>	<u>98</u>	<u>96</u>	<u>96</u>	<u>87</u>	<u>82</u>	<u>64</u>
Total	100	100	100	100	100	100	100
Number of respondents	448	48	57	49	66	88	124

* Less than one-half of one per cent.

^a Includes 16 respondents for whom family income was not ascertained.

There is a relation between the distance people live from center of the city and whether or not they have ever rented an automobile. The proportion who have rented an automobile is highest at a range from ten to fifteen miles out. Of those who live at this distance from the center of the city, 23 per cent have rented an automobile (Table VI-7). It seems probably that these differences from one distance belt to another reflect, not the peculiarities of the geography of the area, but differences in the proportion of high income people living at different distances from the center of the cities.

The same powerful relation between number of cars owned and renting automobiles that had been found for the population at large appears when one restricts attention to the suburban areas as in Table VI-8. Of those in such areas who do not own a car, 7 per cent of heads of families have rented an automobile, compared to 16 per cent of those who own a single car and 24 per cent of those who own two or more cars.

In summary, the data indicate that there are four principal determinants of whether or not a head of a family has ever rented a car: frequency of travel last year, family income, age or stage in the family life cycle, and automobile ownership. It further appears that air travelers are more likely to rent a car than those traveling by any other common carrier, and that among air travelers those most likely to rent are those who are taking a trip of moderate duration rather than a very short or a very long trip.

TABLE VI-7

USE OF RENTED AUTOMOBILE BY DISTANCE FROM CENTER OF NEAREST METROPOLITAN AREA
(Percentage distribution of respondents who live in suburban areas)

Whether ever rented an automobile	All respondents	Distance from center (miles)			
		Under 10	10- 14.9	15- 24.9	25- 49.9
<u>Have rented an automobile</u>	<u>17</u>	<u>10</u>	<u>23</u>	<u>16</u>	<u>13</u>
Used on business trips	4	4	15	4	5
Used on non-business	10	5	5	7	8
Used on both business and non-business trips	3	1	3	5	*
<u>Have never rented an automobile</u>	<u>83</u>	<u>90</u>	<u>77</u>	<u>84</u>	<u>87</u>
Total	100	100	100	100	100
Number of respondents	448	88	173	120	67

* Less than one-half of one per cent.

TABLE VI-8
USE OF RENTED AUTOMOBILE BY CAR OWNERSHIP
(Percentage distribution of respondents who live in suburban areas)

Whether ever rented an automobile	All respondents	Number of cars owned		
		None	One	Two or more
<u>Have rented an automobile</u>	<u>17</u>	<u>7</u>	<u>16</u>	<u>24</u>
Used on business trips	4	2	4	6
Used on non-business trips	10	5	10	11
Used on both business and non-business trips	3	*	2	7
<u>Have never rented an automobile</u>	<u>83</u>	<u>93</u>	<u>84</u>	<u>76</u>
Total	100	100	100	100
Number of respondents	448	58	277	113

* Less than one-half of one per cent.

VII. Superhighways

One of the major developments in the field of travel in the last few years has been the rapid construction of superhighways. Questions were asked as to whether the respondent himself had ever been the driver of a car on one of these roads, and how fast he usually drives on such a road. On older roads speed is often a function of driving conditions but the new highways are sufficiently standardized so that it seems reasonable to ask how fast a person "usually" drives on such a road. People who have driven a car on one of the new roads were also asked whether they enjoyed driving fast or not.

The chapter is divided into three sections which concern whether people have ever used a superhighway, their usual driving speed on a superhighway if they have used one, and their feelings about speed.

A. Use of superhighways

Of all respondents 57 per cent reported having driven a car on one of the new highways (Table VII-1). Of those who owned no car at the time of interview, only 16 per cent reported that they had driven a car on one of these roads, but of those who owned one or more cars, two-thirds or more reported having had this experience. It is more surprising to find that the proportion who have driven on one of the new highways increases as the number of cars increases from one to two and from two to three or more. A possible explanation of this finding is that multiple ownership is more frequent in areas where highways of this type are more common, such as the suburban areas of the largest cities.

Another possible explanation is that in two car families the wife drives, and, therefore, may have had the experience of driving on a superhighway. Men in general are more likely than women to have had this experience as is shown in Table VII-2. Those aged fifty-five or over are less likely to have driven on a superhighway than those in the younger age groups. Taking the two ex-

TABLE VII-1
USE OF SUPERHIGHWAYS BY CAR OWNERSHIP
(Percentage distribution of respondents)

Use of <u>superhighways</u>	<u>All respondents</u>	<u>Number of cars owned</u>			
		<u>None</u>	<u>One</u>	<u>Two</u>	<u>Three or more</u>
Have driven on one of the new highways	57	16	65	78	80
Have never driven on one of the new highways	<u>43</u>	<u>84</u>	<u>35</u>	<u>22</u>	<u>20</u>
Total	100	100	100	100	100
Number of respondents	2648 ^a	561	1517	515	55

^a Excludes 3 respondents for whom use of superhighways was not ascertained.

TABLE VII -2

USE OF SUPERHIGHWAYS BY AGE AND SEX
(Percentage distribution of respondents)

Use of super- highways	All ^a respondents	Age and sex of respondent											
		18 - 24		25 - 34		35 - 44		45 - 54		55 - 64		65 and over	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Have driven on one of the new highways	<u>57</u>	<u>86</u>	<u>47</u>	<u>86</u>	<u>61</u>	<u>82</u>	<u>52</u>	<u>81</u>	<u>43</u>	<u>67</u>	<u>31</u>	<u>44</u>	<u>18</u>
Have never driven on one of the new high- ways	<u>43</u>	<u>14</u>	<u>53</u>	<u>14</u>	<u>39</u>	<u>18</u>	<u>48</u>	<u>19</u>	<u>57</u>	<u>33</u>	<u>69</u>	<u>56</u>	<u>82</u>
Total	100	100	100	100	100	100	100	100	100	100	100	100	100
Number of respondents	2648 ^b	97	126	224	300	262	312	250	281	175	222	167	226

^a Includes 6 cases for whom age was not ascertained.

^b Excludes 3 respondents for whom use of superhighways was not ascertained.

tremes, 86 per cent of young men aged eighteen to twenty-four have driven a car on one of these roads, but only 18 per cent of women aged 65 or over.

B. Usual driving speed on superhighways

Those respondents who have driven a car on one of the new highways were asked their usual driving speed on one of these roads. The distribution is shown in Table VII-3. In preparing this table respondents who quoted a range, rather than an exact speed, were coded at the mid-point of the range. There is an arbitrary element in this procedure. When a man says he drives "70-75", does he mean 73? Does he mean 75? Or does he mean 70?

Taking the distribution as tabulated, very few people report usual driving speeds less than 50 or as high as 80. The median speed reported is 65 miles per hour and the most frequently reported speeds are 60, 65, and 70, each of which was mentioned by 17 per cent of the respondents.

There may be some question as to whether people who do not own a car ought to be included in such a tabulation. Table VII-4 shows usual driving speed separately according to whether people own a car and how many cars they own. If anything, non-owners report slightly lower speeds than owners, but the differences are small, and not likely to effect appreciably any conclusions about the rate at which people drive.

One would expect differences in usual driving speed to be associated with differences in age and in sex. The evidence, which appears in Table VII-5, in general supports the obvious expectations. Women aged 65 and over do tend to drive slowly; half of them report speeds less than 60 miles an hour. Young men aged 18 to 24 do tend to drive faster, only 11 per cent of them report speeds below 60 miles an hour, and 45 per cent report speeds of 70 or above. There is a general tendency for usual driving speed to decrease as age increases. There is a tendency for more people in the older age group to report that they drive at about the posted speed limit.

TABLE VII-3

USUAL DRIVING SPEED ON SUPERHIGHWAYS
(Percentage distribution of respondents who have driven
on one of the new highways)

<u>Usual driving speed</u>	
Less than 50	2
50	4
51 - 54	1
55	6
56 - 59	4
60	17
61 - 64	6
65	17
66 - 69	5
70	17
71 - 79	5
80 or more	2
About the posted speed limit	13
Not ascertained	<u>1</u>
Total	100
Number of respondents	805

TABLE VII-4

USUAL DRIVING SPEED ON SUPERHIGHWAYS BY CAR OWNERSHIP^a
 (Percentage distribution of respondents who have driven
 on one of the new highways)

Usual driving speed	All respondents	Number of cars owned			
		None	One	Two	Three or more
Less than 50	2	5	2	2	*
50 - 59	15	27	17	9	13
60 - 69	46	32	46	49	38
70 - 79	22	23	21	25	23
80 - 89	2	2	*	2	*
90 or over	*	*	*	*	*
About the posted speed limit	<u>13</u>	<u>11</u>	<u>14</u>	<u>13</u>	<u>26</u>
Total	100	100	100	100	100
Number of respondents	805 ^b	44	530	208	22

* Less than one-half of one per cent.

^a Based on the fall wave of interviews.

^b Includes 7 respondents for whom usual driving speed was not ascertained.

TABLE VII-5

USUAL DRIVING SPEED ON SUPERHIGHWAYS BY AGE AND SEX^a
 (Percentage distribution of respondents who have driven
 on one of the new highways)

Usual driving speed	All respondents	Age of respondent											
		18 - 24		25 - 34		35 - 44		45 - 54		55 - 64		65 and over	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Less than 50	2	*	4	*	*	3	3	2	6	3	*	2	8
50 - 59	15	11	7	8	15	12	16	13	16	18	24	11	46
60 - 69	46	42	56	57	41	46	46	41	42	51	38	49	29
70 - 79	22	41	33	26	31	25	20	22	13	11	15	18	*
80 - 89	2	4	*	4	*	1	*	3	6	*	6	*	*
90 or over	*	*	*	*	*	*	*	*	*	*	*	*	*
About the posted speed limit	<u>13</u>	<u>2</u>	<u>*</u>	<u>5</u>	<u>13</u>	<u>13</u>	<u>15</u>	<u>19</u>	<u>17</u>	<u>17</u>	<u>17</u>	<u>20</u>	<u>17</u>
Total	100	100	100	100	100	100	100	100	100	100	100	100	100
Number of respondents	805 ^b	45	27	99	98	114	87	111	55	63	34	45	24

* Less than one-half of one per cent.

^a Based on the fall wave of interviews.

^b Includes 7 respondents for whom usual driving speed was not ascertained.

C. Feelings about speed

People were also asked if they enjoy driving fast. The question was: "Some people enjoy driving fast while others don't like to. How do you feel?" A very few people, 2 per cent, speak enthusiastically about speed, while 3 per cent take the other extreme position and report that they dislike fast driving very much. About 41 per cent take a position against fast driving compared to 23 per cent who take a favorable position. The differences shown in Table VII-6 in feelings about speed among different age and sex groups are about what one might expect in view of the findings about the speeds at which people report they drive. Men tend to like speed more than women. Young people are more positively disposed towards speed than older people. Only 9 per cent of the men 65 and over say that they like speed, or like it very much, compared to 41 per cent of the men aged 18 to 24. Only 12 per cent of women aged 65 and over like speed, in contrast to 27 per cent of the young women aged 18 to 24. The decline in willingness to express a liking for speed seems to come quite rapidly with age: of men 18 to 24, as just noted, 41 per cent like fast driving in contrast to 28 per cent of the men aged 25 to 34.

There is also a relation between feelings about speed and family income, as shown in Table VII-7. People in the lower and middle income groups are much more solidly opposed to speed than those over an income level of \$6000-7499. Of those in the highest income group, \$15,000 or over, 29 per cent report disliking fast driving, in contrast to 48 to 51 per cent in every income class below \$6000. Similarly, of those with incomes over \$15,000, 38 per cent like fast driving in contrast to 16 per cent with incomes from \$5000 to \$5999.

The relation between people's usual driving speed and their feelings about driving fast is shown in Table VII-8. As might be expected, those who dislike driving fast drive more slowly than those who say they like driving fast. Of those who say they dislike driving fast, 28 per cent report speeds under 60 miles an hour, while of those who like driving fast, only 5 per cent

TABLE VII-6

FEELINGS ABOUT DRIVING FAST BY AGE AND SEX
(Percentage distribution of respondents who have driven
on one of the superhighways)

Feelings about fast driving	All respondents ^a	Age and sex of respondent											
		18 - 24		25 - 34		35 - 44		45 - 54		55 - 64		65 and over	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Like fast driving very much	2	4	*	2	2	3	1	3	2	3	3	1	2
Like fast driving	23	37	27	26	20	29	21	22	20	19	24	8	10
Pro-con	12	14	17	13	13	11	7	13	9	11	4	14	10
Dislikes fast driving	41	29	34	35	45	34	51	42	46	38	40	60	53
Dislikes fast driving very much	3	*	2	2	3	2	3	2	6	2	6	1	10
Not ascertained	19	16	20	22	17	21	17	18	17	27	23	16	15
Total	100	100	100	100	100	100	100	100	100	100	100	100	100
Number of respondents	1523	83	59	193	183	215	162	203	120	118	70	74	40

* Less than one-half of one per cent.

^a Includes 3 respondents for whom age was not ascertained.

TABLE VII-7

FEELINGS ABOUT DRIVING FAST BY FAMILY INCOME
(Percentage distribution of respondents who have driven
on one of the superhighways)

Feelings about fast driving	All respondents ^a	Family income								
		under \$2000	\$2000 -2999	\$3000 -3999	\$4000 -4999	\$5000 -5999	\$6000 -7499	\$7500 -9999	\$10,000 -14,999	\$15,000 or over
Like fast driving very much	2	3	2	1	3	1	2	2	3	6
Like fast driving	23	26	18	27	18	15	18	28	29	32
Pro-con	12	7	8	5	11	14	11	12	13	17
Dislike fast driving	41	47	43	47	46	48	41	37	39	24
Dislike fast driving very much	3	2	6	1	3	3	*	3	3	5
Not ascertained	19	15	23	19	19	19	28	18	13	16
Total	100	100	100	100	100	100	100	100	100	100
Number of respondents	1523	73	72	90	169	207	264	267	218	105

* Less than one-half of one per cent.

^a Includes 58 respondents for whom family income was not ascertained.

TABLE VII-8

USUAL DRIVING SPEED BY FEELINGS ABOUT DRIVING FAST^a
 (Percentage distribution of respondents who have driven
 on one of the new highways)

Usual driving speed	All respondents ^b	Feelings about driving fast				
		Like driving fast very much	Like driving fast	Pro-con	Dislike driving fast	Dislike driving fast very much
Less than 50	2	(Too	1	*	4	(Too
50 - 59	15	few	4	10	24	few
60 - 69	46	cases to	39	46	44	cases to
70 - 79	22	per-	38	26	14	per-
80 - 89	2	centagize)	4	1	1	centagize)
90 or over	*		*	*	*	
About the posted speed limit	<u>13</u>		<u>14</u>	<u>17</u>	<u>13</u>	
Total	100		100	100	100	
Number of respondents	805 ^c	13	188	82	330	14

* Less than one-half of one per cent.

^a Based on the full wave of interviews.

^b Includes 178 respondents for whom feelings about driving fast was not ascertained.

^c Includes 7 respondents for whom usual driving speed was not ascertained.

report speeds below 60 miles an hour.

In conclusion, the evidence indicates that people's attitudes toward speed and their actual driving behavior are different depending upon their age, sex, and family income.

VIII. Air Fares and Air Safety

Questions were introduced in this survey concerning people's reactions to reduced plane fares, their perceptions of whether air travel is safer than it was ten years ago, and their knowledge of the work of the federal government with regard to air safety. These three topics correspond to the three sections of this chapter.

A. Reactions to reduced plane fares

To estimate the probable effect of any given reduction in plane fares on the volume of air travel is at best a difficult problem. The short run effects in the period immediately after the change in price may well be different from the long run effects after people have become informed about and accustomed to the change. With a service such as air travel which most people purchase infrequently the length of time required for information to spread and for the reaction to a change to work itself out may very well be quite long.

An additional complication is that the price elasticity of demand need not be the same at all price levels. It is quite possible that the demand is less elastic for price increases than for price decreases from the present level of fares. That is, fares may rise substantially without discouraging all air travelers because of the unique characteristics of air travel. On the other hand if fares fall substantially the question arises, how much diversion of travel from other modes of transportation will occur?

There are two types of data in the present survey which are relevant to the topic of the relation between plane fares and the use of air by individuals. The first part of the data has already been presented in connection with the information about the most recent trip by common carrier. The information is reported primarily in Tables IV-6, IV-7, IV-12, and IV-13 which

have to do with whether the person could have gotten where he wanted to go conveniently by different modes, which mode would have been cheapest for this trip, and the preferred mode if cost had not been a factor. The tables showing the number of people who went on the trip are also relevant. (Tables IV-2, IV-3, and IV-9). As previously noted, there is evidence in these tables that price may be important in the demand for air travel.

A more direct approach to the problem is taken in the questions reported in Table VIII-1. It is not possible to ask people what they would do if plane fares change by one or two percentage points. Instead, people were asked what they would do if plane fares were half what they are now, and if plane fares were cut to nothing. Thirty-four per cent of the respondents state that if plane fares were half what they are now their family would take more air trips. An additional 34 per cent state that if they were offered a free plane trip wherever they wanted to go, they would accept. About 32 per cent say that they would turn down even a free plane trip. While these results must be treated cautiously, they point in the direction of a considerable responsiveness of the demand for air travel to reductions in price.

An advantage of the flexibility of the survey method is that it is possible to compare peoples' responses to the questions about hypothetical reductions in plane fares from one sector of the population to another. Tables VIII-2 to VIII-4 indicate the differences in reactions to reduced plane fares according to the frequency of travel in the last year, air travel experience, and reactions to an attitudinal question about plane trips.

There are large differences in people's responses to the questions about reduced plane fares associated with differences in how much they traveled last year. Of those who took no trips, only 16 per cent say they would take more trips if plane fares were cut in half, compared to 46 per

TABLE VIII -1
REACTIONS TO REDUCED PLANE FARES
(Percentage distribution of respondents)

<u>Reaction</u>		
<u>If plane fares were half</u>		
Would take more trips	28	} 34
Probably would take more trips	3	
Might take more trips	3	
<u>If plane travel were free</u>		
Would take more trips	28	} 34
Probably would take more trips	3	
Might take more trips	3	
Probably would not take more trips	3	} 32
Would not take more trips	26	
Don't know, not ascertained	3	
Total	100	
Number of respondents	2651	

TABLE VIII -2
REACTIONS TO REDUCED PLANE FARES AND FREE TRIPS BY FREQUENCY OF TRAVEL LAST YEAR
(Percentage distribution of respondents)

Reactions	All respondents ^a	Number of trips in last year				
		No trips	One trip	2-4 trips	5-15 trips	16 or more trips
<u>If plane fares were half</u>						
Would take more trips	28	16	26	33	37	46
Probably would take more trips	3	3	1	4	3	4
Might take more trips	3	3	3	3	4	2
<u>If plane travel were free</u>						
Would take more trips	28	24	28	27	33	29
Probably would take more trips	3	3	4	3	3	2
Might take more trips	3	3	4	3	2	3
Probably would not take more trips	3	3	5	3	2	2
Would not take more trips	26	43	25	22	14	10
Don't know, not ascertained	<u>3</u>	<u>2</u>	<u>4</u>	<u>2</u>	<u>2</u>	<u>2</u>
Total	100	100	100	100	100	100
Number of respondents	2651	783	473	6251	625	182

^a Includes 63 respondents for whom the number of trips was not ascertained.

cent of those who took sixteen or more trips (Table VIII-2). On the other hand, of those who took no trips 43 per cent say they would not take more trips by plane even if plane travel were free, while only 10 per cent of those who took sixteen or more trips say they would take no more plane trips if plane travel were free.

The relation between air travel experience and reactions to reduced plane fares is essentially similar. Of those who are experienced air travelers 44 per cent say they would take more plane trips if the fares were cut in half, while only 20 per cent of those who never have taken an air trip say they would take more trips if the fares were cut in half (Table VIII-3). These results suggest that the price of an air trip may not be the most important consideration in getting people to take their first trip. Once people have become accustomed to air travel, and to travel generally, then price becomes an important factor in determining how much travel they do. The results with regard to the relation between experience and sensitivity to price are particularly interesting because of the known systematic change in experience over time. The data suggest that as more people are becoming experienced air travelers the price elasticity of the demand for air travel is tending to increase.

That interpretation is consistent with the findings shown in Table VIII-4. It is there shown that those respondents who reacted positively toward air travel in response to a sentence completion item are much more likely to say that they would increase their air travel if plane fares were reduced. Of the people who gave positive responses, only 9 per cent say they would not take more air trips if plane travel were free. Of those who gave a negative comment about plane travel, however, 44 per cent say they would not take more trips by air if air travel were free. For these people, price is not the major obstacle to flying; rather, the most important fact is that they do not wish to fly. Price becomes important only among people who are

TABLE VIII-3

REACTIONS TO REDUCED FARES AND FREE PLANE TRIPS
BY EXPERIENCE AS AN AIR TRAVELER
(Percentage distribution of respondents)

Reactions	All respondents ^a	Air experience	
		Have taken an air trip	Have never taken an air trip
<u>If plane fares were half</u>			
Would take more trips	28	44	20
Probably would take more trips	3	3	3
Might take more trips	3	4	3
<u>If plane travel were free</u>			
Would take more trips	28	31	26
Probably would take more trips	3	2	4
Might take more trips	3	2	3
Probably would not take more trips	3	2	4
Would not take more trips	26	10	34
Don't know, not ascertained	<u>3</u>	<u>2</u>	<u>3</u>
Total	100	100	100
Number of respondents	2651	884	1738

^a Includes 29 respondents for whom air experience was not ascertained.

TABLE VIII -4

REACTIONS TO REDUCED PLANE FARES AND FREE TRIPS BY REACTIONS TO PLANE TRIPS
(Percentage distribution of respondents)

<u>Reactions</u>	<u>All respondents</u>	<u>Reactions to plane trips</u>			
		<u>Positive</u>	<u>Mildly positive</u>	<u>Negative</u>	<u>Don't know, no answer</u>
<u>If fares were half</u>					
Would take more trips	28	47	38	14	17
Probably would take more trips	3	3	1	3	3
Might take more trips	3	2	4	3	4
<u>If plane travel were free</u>					
Would take more trips	28	32	33	22	28
Probably would take more trips	3	2	3	4	4
Might take more trips	3	2	2	3	5
Probably would not take more trips	3	1	3	4	4
Would not take more trips	26	9	15	44	32
Don't know, not ascertained	<u>3</u>	<u>2</u>	<u>1</u>	<u>3</u>	<u>3</u>
Total	100	100	100	100	100
Number of respondents	2651	795	461	967	428

positively disposed toward air travel.

B. Whether air safety is perceived to be greater than ten years ago

There is no necessary connection between people's perception of whether air travel is safer than it was ten years ago and the actual course of events. The facts are that the passenger fatality rate per one hundred million passenger miles flown on scheduled passenger service in the United States was 1.15 in 1950 and 1.30 in 1951 compared to 0.97 in 1960 and 0.40 in 1961. The trend, in other words, has been toward increased safety. The interesting question is whether people are aware of that fact, and if they are, what differences there may be in this awareness among different sections of the population.

As indicated in Table VIII-5, 64 per cent of the population are aware that air travel is safer, and an additional 7 per cent say that air safety is about the same, a response which is at least roughly consistent with the facts. Eleven per cent state that air travel is less safe and 18 per cent express no opinion.

There is a definite relation between people's reactions to plane trips and their feelings about air safety. Of those who react positively to plane trips, 74 per cent believe air travel is safer, while of those who react negatively, 53 per cent believe air travel is safer. In interpreting this relationship it is necessary to be cautious about the direction of causation. It may be that people react positively to plane trips because they believe plane travel is safe, or it may also be that people believe air travel is safe because they react positively to it. Both of these interpretations may be correct in the sense that the two attitudes may reinforce one another.

There are substantial differences among education groups in whether people believe air travel is safer now than it was ten years ago (Table VIII-6). People with more education are in general better informed, and it is not

TABLE VIII-5

FEELINGS ABOUT WHETHER AIR TRAVEL IS SAFER NOW THAN TEN YEARS AGO
BY REACTIONS TO PLANE TRIPS
(Percentage distribution of respondents)

Feelings about air safety ^a	All respondents	Reactions to plane trips ^b			
		Positive	Mildly positive	Negative	Don't know, no answer
Much safer now	6	9	7	3	4
Safer now	58	65	65	50	54
About the same	7	7	7	7	6
Not as safe now	10	6	8	15	10
Much less safe now	1	1	*	1	1
Don't know, not ascertained	18	12	13	24	25
Total	100	100	100	100	100
Number of respondents	2651	795	461	957	428

* Less than one-half of one per cent.

^a The question asked was: "Would you say that air travel is safer now than it was ten years ago, or not as safe, or what?"

^b Based on a sentence completion item: "Plane trips are..."

TABLE VIII-6

FEELINGS ABOUT WHETHER AIR TRAVEL IS SAFER NOW THAN TEN YEARS AGO
BY EDUCATION OF RESPONDENT
(Percentage distribution of respondents)

<u>Feelings about air safety</u>	<u>All respondents^a</u>	<u>Education of respondent</u>						
		<u>None, grade school (1-8)</u>	<u>Some high school</u>	<u>Some high school + non- academic</u>	<u>Completed high school</u>	<u>Completed high school + non- academic</u>	<u>Some college</u>	<u>Have college degrees</u>
Much safer now	6	4		9	6	5	9	9
Safer now	58	43	58	61	63	70	66	68
About the same	7	6	7	9	7	7	8	5
Not as safe now	10	16	13	6	8	7	6	6
Much less safe now	1	2	*	1	1	*	*	1
Don't know, not ascertained	<u>18</u>	<u>29</u>	<u>19</u>	<u>14</u>	<u>15</u>	<u>11</u>	<u>11</u>	<u>11</u>
Total	100	100	100	100	100	100	100	100
Number of respondents	2651	748	409	116	526	211	322	306

* Less than one-half of one per cent.

^a Includes 13 respondents for whom education was not ascertained.

surprising to find that the proportion who report that they don't know whether air travel is safer or not falls with increasing education from 29 per cent of those with a grade school education or less to 11 per cent of those with a college degree. The general level of information of educated people may also explain why the opinion that air travel is not as safe as it was is more common among poorly educated people than it is among well educated people. Three out of four people who have been to college believe that air travel is safer now than it was ten years ago.

In view of the association between education and the use of airplanes, it is not surprising to find a relation between experience as an air traveler and feelings about air safety. About 74 per cent of those who have taken an air trip believe that air travel is safer, while 58 per cent of those who have never taken an air trip hold this opinion. (Table VIII-7).

It is perhaps more surprising to find a relation between age and feelings about the safety of air travel (Table VIII-8). Young people, aged 18 to 24, are more likely to believe that air travel is becoming more safe than those aged 65 or over. People over 65 have been shown already to be less likely to fly than younger adults, and less likely ever to have taken an air trip. It is here shown that they are less likely to have an opinion as to whether or not air travel is becoming more safe, a finding which is consistent with the general lack of interest in the subject among people of advanced years.

C. Knowledge of work of federal government on air safety

In investigating attitudes and information about the work of the federal government it seemed inappropriate to ask people to distinguish between the Federal Aviation Agency and the Civil Aeronautics Board. The approach taken was to state that there was a federal agency that works on problems of air safety and to ask respondents if they knew anything about

TABLE VIII-7

FEELINGS ABOUT WHETHER AIR TRAVEL IS SAFER NOW THAN TEN YEARS AGO
 BY EXPERIENCE AS AN AIR TRAVELER
 (Percentage distribution of respondents)

Feelings about air safety	All respondents ^a	Experience as an air traveler	
		Have taken an air trip	Have never taken an air trip
Much safer now	6	8	4
Safer now	58	66	54
About the same	7	8	6
Not as safe now	10	6	13
Much less safe now	1	1	1
Don't know, not ascertained	<u>18</u>	<u>11</u>	<u>22</u>
Total	100	100	100
Number of respondents	2651	884	1738

^a Includes 29 respondents for whom air experience was not ascertained.

TABLE VIII-8

FEELINGS ABOUT WHETHER AIR TRAVEL IS SAFER NOW THAN TEN YEARS AGO
BY AGE OF RESPONDENT
(Percentage distribution of respondents)

Feelings about <u>air safety</u>	All <u>respondents</u> ^a	<u>Age of respondent</u>					
		<u>18-24</u>	<u>25-34</u>	<u>35-44</u>	<u>45-54</u>	<u>55-64</u>	<u>65 or over</u>
Much safer now	6	8	3	5	7	6	5
Safer now	58	64	63	62	60	54	44
About the same	7	6	10	7	6	6	5
Not as safe now	10	13	10	9	8	9	15
Much less safe now	1	*	1	1	1	1	1
Don't know, not ascertained	<u>18</u>	<u>9</u>	<u>13</u>	<u>16</u>	<u>18</u>	<u>24</u>	<u>30</u>
Total	100	100	100	100	100	100	100
Number of respondents	2651	223	524	574	531	397	393

* Less than one-half of one per cent.

^a Includes 9 respondents for whom age was not ascertained.

the things that this branch of the government does.

Of all adults interviewed, 29 per cent reported that they did have some knowledge of the work of this agency. All but 2 per cent of these gave some details which confirm their knowledge. The activities most frequently mentioned were accident investigations and air traffic control. Questions about people's level of information in sample surveys commonly show that people are poorly informed about matters of little direct concern to them. To the investigators the level of information about federal activities shown by these responses was surprisingly high.

One would expect differences in knowledge about this type of government activity based on differences in income and education. People in the upper income groups and in the upper levels of education both are more likely to have occasion to travel by air and more likely to be well informed generally. These expectations are confirmed by the data in Tables VIII-9 and VIII-10. The differences among income groups in level of information about this work are very substantial. Of those with incomes below \$2000 only 10 per cent report knowledge while of those with incomes over \$15,000 almost half report some knowledge of this work. The differences among education groups are even greater, with the percentage who are informed rising from 9 per cent of those with a grade school education or less to 64 per cent of those with a college degree. Of the highest education group about three out of ten mention two or more of the major activities of the federal government related to air safety.

As previously remarked, people tend to be informed about activities which concern them directly, and those most concerned with air safety are those who fly. Of those who have taken an air trip at some time, 46 per cent report some knowledge of the work of the federal government on air safety, compared to only 19 per cent of those who have never taken an air trip (Table VIII-11). Thus, information in this area is the result of two fac-

TABLE VIII- 9

KNOWLEDGE OF WORK OF FEDERAL GOVERNMENT ON AIR SAFETY BY FAMILY INCOME
(Percentage distribution of respondents)

Knowledge	All respondents ^a	Family income								
		Under \$2000	\$2000 -2999	\$3000 -3999	\$4000 -4999	\$5000 -5999	\$6000 -7499	\$7500 -9999	\$10,000 -14,999	\$15,000 or over
<u>Reports some knowledge</u>	<u>29</u>	<u>10</u>	<u>17</u>	<u>21</u>	<u>24</u>	<u>29</u>	<u>38</u>	<u>39</u>	<u>45</u>	<u>47</u>
Yes, accident investigations	6	3	3	8	6	8	9	5	8	6
Yes, air traffic control	5	1	3	1	3	7	8	7	8	12
Yes, inspection of planes; examination of pilots	3	1	1	3	2	3	4	5	3	3
Yes, other activities	3	1	4	2	1	3	3	3	4	2
Yes, mentions two or more of above	10	3	5	5	10	5	11	17	19	22
Yes, but no details given	2	1	1	2	2	3	3	2	3	2
<u>Reports no knowledge</u>	<u>70</u>	<u>89</u>	<u>82</u>	<u>77</u>	<u>74</u>	<u>70</u>	<u>61</u>	<u>60</u>	<u>53</u>	<u>52</u>
<u>Not ascertained</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>
Total	100	100	100	100	100	100	100	100	100	100
Number of respondents	2651	364	222	225	288	321	386	348	262	120

^a Includes 115 respondents for whom income was not ascertained.

TABLE VIII- 10

KNOWLEDGE OF WORK OF FEDERAL GOVERNMENT ON AIR SAFETY
BY EDUCATION OF RESPONDENT
(Percentage distribution of respondents)

Knowledge	All respondents	Education of respondent						
		None, grade school (1-8)	Some high school	Some high school + non-academic	Completed high school	Completed high school + non-academic	Some college	Have college degree
<u>Reports some knowledge</u>	<u>29</u>	<u>9</u>	<u>18</u>	<u>23</u>	<u>31</u>	<u>40</u>	<u>44</u>	<u>64</u>
Yes, accident investigations	6	2	5	2	9	8	7	10
Yes, air traffic control	5	1	3	5	5	8	10	12
Yes, inspection of planes; examination of pilots	3	1	2	4	3	3	3	4
Yes, other activities	3	1	2	2	3	3	3	5
Yes, mentions two or more of above	10	3	4	9	9	15	18	29
Yes, but no details given	2	1	2	1	2	3	3	4
<u>Reports no knowledge</u>	<u>70</u>	<u>89</u>	<u>81</u>	<u>76</u>	<u>69</u>	<u>58</u>	<u>54</u>	<u>35</u>
<u>Not ascertained</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>*</u>	<u>2</u>	<u>2</u>	<u>1</u>
Total	100	100	100	100	100	100	100	100
Number of respondents	2651	748	409	116	526	211	322	306

TABLE VIII-11
KNOWLEDGE OF WORK OF FEDERAL GOVERNMENT ON AIR SAFETY
BY EXPERIENCE AS AN AIR TRAVELER
(Percentage distribution of respondents)

<u>Knowledge^a</u>	<u>All respondents^b</u>	<u>Experience as an air traveler</u>	
		<u>Have taken an air trip</u>	<u>Have never taken an air trip</u>
<u>Reports some knowledge</u>	<u>29</u>	<u>46</u>	<u>19</u>
Yes, accident investigations	6	8	5
Yes, air traffic control	5	9	3
Yes, inspection of planes, examination of pilots	3	3	2
Yes, other activities	3	4	2
Yes, mentioned two or more of above	10	19	5
Yes, but no details given	2	3	2
<u>Reports no knowledge</u>	<u>70</u>	<u>53</u>	<u>79</u>
<u>Not ascertained</u>	<u>1</u>	<u>1</u>	<u>2</u>
Total	100	100	100
Number of respondents	2651	884	1738

^a The question was: "As you may know, there is a branch of the federal government that works on problems of air safety. Do you happen to know any of the things they do?"

^b Includes 29 respondents for whom air experience was not ascertained.

tors, personal involvement, represented by experience as an air traveler, and general level of information, represented by education.

IX. Package Tours

A special topic covered in the survey was package tours. People were asked if they had ever gone on a package tour "where you paid at one time for your fare, your hotel, and sightseeing". Those who had done so were asked how they liked this arrangement.

Only about 6 per cent of all adults have ever been on a package tour (Table IX-1). This proportion tends to rise with income. Of those with incomes below \$5000 a year, about 4 or 5 per cent have been on such a trip. Of those with incomes of \$15,000 or over, 16 per cent have been on a package tour.

Of those who have been on a package tour almost everyone enjoyed it. Sixty-eight per cent report that they liked it very much. Only 8 per cent indicate that on balance they did not like the tour (Table IX-2).

A few individuals volunteered comments about the tour. Of these comments by far the most common is that tours are desirable because they're easy, and avoid trouble and worry. Freedom from worry and responsibility is the principal appeal of package tours. Economy is also mentioned as an advantage but much less frequently. The principal complaint, and it is mentioned by only 4 per cent of those who have taken a tour, is that tours are over-organized and leave people with too little time to themselves. (Table IX-3).

Since the comments about tours lose much of their flavor in the process of being condensed into a tabulation, a series of quotations follows:

Single woman, history teacher, age 42, family income \$6000-7499

"Don't like it. Too much herding and too close schedules."

Supervisor of an army supply post, married, age 56, family income \$10,000-14,999

"Very good. Low cost and much pleasure."

Retired widow from Government Placement Bureau, age 65, family income \$5000-9999

"Very much. Whole lot of worry and plans taken off my shoulders."

TABLE IX-1

EXPERIENCE WITH PACKAGE TOURS BY FAMILY INCOME
(Percentage distribution of respondents)

Experience	All respondents ^a	Family income								
		under \$2000	\$2000 -2999	\$3000 -3999	\$4000 -4999	\$5000 -5999	\$6000 -7499	\$7500 -9999	\$10,000 -14,999	\$15,000 or over
Have been on a package tour	6	5	5	4	4	8	8	9	11	16
Have never been on a package tour	<u>94</u>	<u>95</u>	<u>95</u>	<u>96</u>	<u>96</u>	<u>92</u>	<u>92</u>	<u>91</u>	<u>89</u>	<u>84</u>
Total	100	100	100	100	100	100	100	100	100	100
Number of respondents	2651	364	222	225	288	321	386	348	262	120

^a Includes 115 respondents for whom income was not ascertained.

TABLE IX -2
REACTIONS TO PACKAGE TOURS
(Percentage distribution of respondents
who have taken package tours)

<u>Reactions to the tour</u>	
Liked it very much	68
Liked it fairly well	18
Liked some aspects but not others	4
Didn't like it very much; not too happy with it	4
Didn't like it at all	4
Not ascertained	<u>2</u>
Total	100
Number of respondents	194

TABLE IX-3
COMMENTS ABOUT PACKAGE TOURS
(Percentage distribution of respondents)

<u>Comments</u>	
Easy, avoids trouble and worry	13
Economical	5
Too organized, no free time	4
Too expensive	1
Didn't like the other people	1
Other comments	11
No comments	45
Not ascertained	<u>20</u>
Total	100
Number of respondents	194

Wife of a retired buyer in a department store, age 76, family income \$5000-9999

"Very much - very convenient. Everything was taken care of for you - nothing to worry about."

Widow who is a retired buyer in a department store, age 76, family income \$4000-4999

"For the time that was allotted it was a very well set up tour."

A teacher, wife of an accountant, age 48, family income \$10,000-14,999

"Very well. It afforded me more time as all details were taken care of."

Cigar clerk, married, age 52, family income \$7500-9999

"Fine, fun - good accommodations and very well priced. In fact, when we go - that's the way we're going."

Hat and dress designer, single woman, age 72, family income \$4000-4999

"I like it very much - much cheaper. My first trip to Los Angeles was this type, by bus."

Widowed housewife, age 58, family income \$7500-9999

"Everything was fine. Wouldn't like to have to make my own accommodations."

Vegetable picker, single, age 56, family income \$3000-3999

"No good for me. I paid \$220 'cause I had a girl friend and that was for her, too, but I didn't get my money's worth. I don't like package tours."

Attorney, married, age 72, family income \$20,000 and over

"Fair, too much hurry to it."

Wife of an oil operator, age 56, family income \$15,000-19,999

"I liked it - it's the only way to go without worries."

Wife of locomotive inspector and machinist, age 39, family income \$7500-9999

"We loved it. You really see and do a lot for a little."

Clerk in a grocery store, married, age 17, family income \$1000-1999

"It was all right. But we didn't get to see as many things as we would have if we'd paid all the expenses ourselves."

Wife of chief corpsman in the navy, age 31, family income \$3000-3999

"It was all right - convenient to have the details taken care of."

Fisherman, married, age 24, family income \$2000-2999

"Had a good time. Saved a lot of trouble."

Reactions to package tours do not differ by family income (Table IX-4). Of those who have taken a tour, seven out of ten at every income level report that they liked it very much.

There is some evidence, however, that frequent travelers are somewhat less likely to be enthusiastic about tours than infrequent travelers. Of those who in the last year took sixteen or more trips, 86 per cent report that they liked the tour, and this per cent rises as the number of trips in the last year falls (Table IX-5). These differences are small enough, however, so that they may be the result only of sampling fluctuation. The main finding is that the response to package tours on the part of the people who have taken them is overwhelmingly favorable.

TABLE IX -4

REACTIONS TO PACKAGE TOURS BY FAMILY INCOME
(Percentage distribution of respondents)

<u>Reactions to the tour</u>	<u>All respondents^a</u>	<u>Family income</u>			
		<u>under \$4,000</u>	<u>\$4,000 -5,999</u>	<u>\$6,000 -9,999</u>	<u>\$10,000 or over</u>
Liked it very much	68	72	72	68	70
Liked it fairly well	18	20	22	11	18
Liked some aspects but not others	4	3	*	5	6
Didn't like it very much; not too happy with it	4	*	2	5	6
Didn't like it at all	4	5	2	6	*
Not ascertained	2	*	2	5	*
Total	100	100	100	100	100
Number of respondents	194	40	41	62	49

* Less than one-half of one per cent.

^a Includes 2 respondents for whom income was not ascertained.

TABLE IX -5

REACTIONS TO PACKAGE TOURS BY FREQUENCY OF TRAVEL LAST YEAR
(Percentage distribution of respondents who have been on a tour)

<u>Reactions to the tour</u>	<u>All respondents^a</u>	<u>Number of trips in last year</u>				
		<u>No trips</u>	<u>One trip</u>	<u>2-4 trips</u>	<u>5-15 trips</u>	<u>16 or more trips</u>
Liked it	90	92	93	90	89	86
Did not like it	8	4	7	5	11	9
Not ascertained	<u>2</u>	<u>4</u>	<u>*</u>	<u>5</u>	<u>*</u>	<u>5</u>
Total	100	100	100	100	100	100
Number of respondents	194	26	27	61	54	22

* Less than one-half of one per cent.

^a Includes 4 respondents for whom frequency of travel was not ascertained.

Appendix A. The Questionnaire

TRAVEL

T1. I'm going to read you some sentences that we've started. We'd like you to give us a few words to finish the sentences. Don't bother to think over your answers, just say what occurs to you.

T1a. If I had an extra month's income to spend I would _____

T1b. If I could pick the way to spend my vacation this year I would _____

T1c. People who travel a lot are _____

T1d. Automobile trips are _____

T1e. Plane trips are _____

T1f. Bus trips are _____

T1g. Mr. and Mrs. Brown were offered an expense-free tour of the United States but they don't want to go because _____

T1h. The best way to travel is _____

T2. In the last few years new super-highways have been built in many parts of the United States. Have you yourself ever been a driver of a car on one of the new roads?

☐ NO (GO TO Q. T3)

☐ YES

T2a. How fast do you usually drive on one of these roads? _____

T2b. Some people enjoy driving fast while others don't like to. How do you feel? _____

T3. Have you (HEAD) ever rented a "drive-it-yourself" automobile?

☐ NO (SKIP TO PAGE 22, Q. T4)

☐ YES

T3a. Were you traveling on business or for personal reasons or have you rented cars on both kinds of trips?

☐ USED ON BUSINESS
TRIPS ONLY

☐ USED ON PERSONAL
TRIPS ONLY

☐ USED ON BOTH
BUSINESS AND
PERSONAL TRIPS

4. INTERVIEWER: ENTER EACH ADULT BY RELATION TO HEAD AND LISTING BOX NUMBER

(ASK T5 - T9d FOR EACH ADULT)

5. Have (you) ever taken a trip to a place 100 miles or more away by air?

(IF YES)

T5a. During the last two years have (you) taken any trips by commercial airline to places 100 miles away?

H E A D

☐ YES

☐ NO (GO TO T6)

☐ YES

☐ NO (GO TO T6)

☐ YES

☐ NO (GO TO T6)

☐ YES

☐ NO (GO TO T6)

☐ YES

☐ NO (GO TO T6)

☐ YES

☐ NO (GO TO T6)

(IF YES)

T5b. Did (you) take your first air trip in the last 12 months?

☐ YES

☐ NO

☐ YES

☐ NO

☐ YES

☐ NO

T5c. Thinking of (your) most recent air trip, what month and year was that?

T5d. What month and year did (you) take the trip before that?

☐ NONE (GO TO T6)

☐ NONE (GO TO T6)

☐ NONE (GO TO T6)

(IF TWO TRIPS IN LAST 12 MOS. - in T5c and T5d)

T5e. Altogether, how many trips did (you) take in the last 12 months, counting a round trip as one trip?

6. Have (you) ever taken a trip to a place 100 miles or more away by rail?

(IF YES)

T6a. During the last two years have (you) taken any trips by rail to a place 100 miles away?

☐ YES

☐ NO (GO TO T7)

☐ YES

☐ NO (GO TO T7)

☐ YES

☐ NO (GO TO T7)

☐ YES

☐ NO (GO TO T7)

☐ YES

☐ NO (GO TO T7)

☐ YES

☐ NO (GO TO T7)

(IF YES)

T6b. What month and year did (you) take your last rail trip?

T6c. Altogether, how many rail trips did (you) take in the last 12 months, counting a round trip as one trip?

☐ NONE

☐ NONE

☐ NONE

(CONTINUE FOR EACH ADULT)

		H E A D		
T7. Have (you) ever taken a trip to a place 100 miles or more away by <u>bus</u> ?		<input type="checkbox"/> YES <input type="checkbox"/> NO (GO TO T8)	<input type="checkbox"/> YES <input type="checkbox"/> NO (GO TO T8)	<input type="checkbox"/> YES <input type="checkbox"/> NO (GO TO T8)
(IF YES)				
T7a. During the last two years have (you) taken any trips by bus to a place 100 miles away?		<input type="checkbox"/> YES <input type="checkbox"/> NO (GO TO T8)	<input type="checkbox"/> YES <input type="checkbox"/> NO (GO TO T8)	<input type="checkbox"/> YES <input type="checkbox"/> NO (GO TO T8)
(IF YES)	T7b. What <u>month</u> and <u>year</u> did (you) take (your) last bus trip?	_____	_____	_____
	T7c. Altogether, how many bus trips did (you) take in the last 12 months, counting a round trip as one trip?	<input type="checkbox"/> NONE _____	<input type="checkbox"/> NONE _____	<input type="checkbox"/> NONE _____
T8. Have (you) ever taken a trip to a place 100 miles or more away by <u>auto</u> ?		<input type="checkbox"/> YES <input type="checkbox"/> NO (GO TO T9)	<input type="checkbox"/> YES <input type="checkbox"/> NO (GO TO T9)	<input type="checkbox"/> YES <input type="checkbox"/> NO (GO TO T9)
(IF YES)				
T8a. During the last two years have (you) taken any trips by auto to a place 100 miles away?		<input type="checkbox"/> YES <input type="checkbox"/> NO (GO TO T9)	<input type="checkbox"/> YES <input type="checkbox"/> NO (GO TO T9)	<input type="checkbox"/> YES <input type="checkbox"/> NO (GO TO T9)
(IF YES)	T8b. What <u>month</u> and <u>year</u> did (you) take your last auto trip?	_____	_____	_____
	T8c. Altogether, how many auto trips did (you) take in the last 12 months, counting a round trip as one trip?	<input type="checkbox"/> NONE _____	<input type="checkbox"/> NONE _____	<input type="checkbox"/> NONE _____
T9. Were any of (your) trips in the last 12 <u>months</u> business trips - that is, trips in connection with (your) work?		<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO
(IF YES)				
T9a. How many of (your) <u>air</u> trips were business trips?		<input type="checkbox"/> NONE _____	<input type="checkbox"/> NONE _____	<input type="checkbox"/> NONE _____
T9b. How many of (your) <u>rail</u> trips were business trips?		<input type="checkbox"/> NONE _____	<input type="checkbox"/> NONE _____	<input type="checkbox"/> NONE _____
T9c. How many of (your) <u>bus</u> trips were business trips?		<input type="checkbox"/> NONE _____	<input type="checkbox"/> NONE _____	<input type="checkbox"/> NONE _____
T9d. How many of (your) <u>auto</u> trips were business trips?		<input type="checkbox"/> NONE _____	<input type="checkbox"/> NONE _____	<input type="checkbox"/> NONE _____

(RETURN TO T5 FOR EACH ADULT)

10. INTERVIEWER: ☐ NO AUTO TRIP BY ANY ADULT IN LAST 12 MONTHS--(SKIP TO T11)
 CHECK ONE: ☐ ONE OR MORE AUTO TRIPS IN LAST 12 MONTHS--(ASK T10a)

T10. I'd like to ask you about the most recent auto trip by a member of this family.

a. What was the most distant place (you) reached? _____ (TOWN AND STATE)

b. How far is that from here? (miles?)

100-199	200-299	300-399	400-499	500-749	750-999	1000-1499	1500 AND OVER
---------	---------	---------	---------	---------	---------	-----------	---------------

c. Was any part of the trip by air, rail, or bus?

AIR	RAIL	BUS	OR	AUTO ONLY
-----	------	-----	----	-----------

 (CHECK EACH MODE USED)

d. Who went? (LIST EVERYONE) _____

e. How long were (you) away? (days?)

BACK SAME DAY	1-2	3-6	7-10	11-20	21-35	36 AND OVER
---------------	-----	-----	------	-------	-------	-------------

f. Was this a business trip, I mean a trip in connection with (your) work?

BUSINESS TRIP	NOT BUSINESS	PARTLY ON BUSINESS; BUSINESS FOR SOME OF THE PARTY
---------------	--------------	--

g. Could (you) have gotten where (you) wanted to go conveniently:
 by air?

YES	NO
-----	----

 by rail?

YES	NO
-----	----

 by bus?

YES	NO
-----	----

h. For this trip would air, rail, bus, or auto have been the cheapest?

AIR	RAIL	BUS	AUTO
-----	------	-----	------

i. If the cost had been the same no matter how you went, what kind of transportation would you have taken on this trip?

AIR	RAIL	BUS	AUTO
-----	------	-----	------

11. INTERVIEWER: ☐ NO TRIP BY AIR, RAIL OR BUS BY ANYONE IN LAST 12 MONTHS--(SKIP TO T12)
 CHECK ONE: ☐ ONE OR MORE TRIPS BY AIR, RAIL, OR BUS--(ASK T11a)

T11. I'd like to ask you about the most recent trip by air, rail, or bus by a member of this family.

a. What was the most distant place (you) reached? _____ (TOWN AND STATE)

b. How far is that from here? (miles?)

100-199	200-299	300-399	400-499	500-749	750-999	1000-1499	1500 AND OVER
---------	---------	---------	---------	---------	---------	-----------	---------------

c. What kinds of transportation did (you) use?

AIR	RAIL	BUS
-----	------	-----

 (CHECK EACH MODE USED)

d. Did (you) rent a "drive-it-yourself" car?

YES	NO
-----	----

e. Who went? (LIST EVERYONE) _____

f. How long were (you) away? (days?)

BACK SAME DAY	1-2	3-6	7-10	11-20	21-35	36 AND OVER
---------------	-----	-----	------	-------	-------	-------------

(CONTINUED ON NEXT PAGE)

(IF AIR, RAIL, OR BUS TRIP WITHIN LAST 12 MONTHS - CONTINUED)

g. Was this a business trip,
I mean a trip in connection with (your) work?

BUSINESS
TRIP

NOT
BUSINESS

PARTLY ON BUSINESS,
BUSINESS FOR SOME
OF THE PARTY

h. Could (you) have gotten where (you) wanted to go conveniently:

by air? ☐ YES ☐ NO

by rail? ☐ YES ☐ NO

by bus? ☐ YES ☐ NO

i. For this trip which had the most convenient schedule, air, rail, or bus? _____

j. For this trip would air, rail, bus, or auto have been cheapest?

☐ AIR

☐ RAIL

☐ BUS

☐ AUTO

k. If the cost had been the same no matter how you went, what kind of transportation would you have taken on this trip?

☐ AIR

☐ RAIL

☐ BUS

☐ AUTO

T12. If plane fares were half what they are now, do you think your family would take more plane trips than you do at the present time?

(IF NO) T12a. Suppose someone were to offer you and your family a free plane trip wherever you wanted to go, would you take it?

T13. As you may know, there is a branch of the federal government that works on problems of air safety. Do you happen to know any of the things they do?

T14. Would you say that air travel is safer now than it was ten years ago, or not as safe, or what?

T15. Did you ever go on a package tour where you paid at one time for your fare, your hotel, and sightseeing?

☐ NO

☐ YES

T15a. How did you like this arrangement? _____

Appendix B. Sampling Errors

Properly conducted sample interview surveys yield useful estimates but they do not yield exact values. Errors arise from several sources: sampling, non-response, reporting and processing. Each source of error may be important in evaluating the accuracy of information. The present discussion is limited to sampling errors.

Sample statistics reflect the random variations arising from interviewing only a fraction of the population. The distribution of individuals selected for a sample will usually differ by an unknown amount from that of the population from which the sample is drawn. The value which would have been obtained if the entire population had been designated to be interviewed by the same survey procedures will be referred to as the population value. If different samples were used under the same survey conditions, some of the estimates would be larger than the population value and some would be smaller. The sampling error is a measure of the chance deviation of a sample statistic from the corresponding population value. The sampling error does not measure the actual error of a particular sample estimate; rather it leads to statements in terms of confidence intervals that are correct in a specified proportion of cases in the long run.

"Sampling error" as used here is to be interpreted as two standard errors; it is the range, on either side of the sample estimate, chosen frequently in social research in order to obtain the 95 per cent "level of confidence". If one requires a greater degree of confidence than this, a wider range than two standard errors should be used. On the other hand, most of the time the actual error of sampling will be less than the sampling error defined above; in about 68 cases of every 100 the population value can be expected to lie within a range of one-half the sampling error (one standard error) of the sample estimates.

Sampling errors themselves are products of the sampling processes and are subject to the effects of random fluctuations. Therefore, a range, rather than

a single value, has been used in the tables which follow. The upper limits are based on computations of data from earlier travel surveys. They are not averages but values on the high or conservative side. The smaller values were computed by use of the formula for simple random samples which can be viewed as the lower bound to the Survey's sampling errors.

Appendix Table I shows approximate sampling errors of percentages on a per adult basis when individual percentages are considered separately. Appendix Table II shows approximate sampling errors of differences between two percentages. The sampling errors of differences indicate the range in which the "true" differences between the population values of the two compared classes can be expected to fall 95 out of 100 times. Appendix Tables III and IV show approximate sampling errors on a per interview basis.

Appendix Table I: Approximate Sampling Errors of Percentages for "Per Adult" Responses
(expressed in percentages)

Reported Percentage	Number of Adults													
	8500	5500	4200	3000	2500	2000	1500	1000	700	500	400	300	200	100
50	1.1	1.3	1.5	1.8	2.0	2.2	2.6	3.2	3.8	4.5	5.0	5.8	7.1	10.0
	2.9	3.2	3.5	4.0	4.2	4.7	5.3	6.2	7.3	8.6	9.6	11.0	13.4	18.8
30 or 70	1.0	1.2	1.4	1.7	1.8	2.0	2.4	2.9	3.5	4.1	4.6	5.3	6.5	9.2
	2.6	3.0	3.2	3.6	3.9	4.3	4.8	5.7	6.7	7.9	8.8	10.1	12.3	17.2
20 or 80	0.9	1.1	1.2	1.5	1.6	1.8	2.1	2.5	3.0	3.6	4.0	4.6	5.7	8.0
	2.3	2.6	2.8	3.2	3.4	3.7	4.2	5.0	5.9	6.9	7.6	8.8	10.7	15.0
10 or 90	0.7	0.8	0.9	1.1	1.2	1.3	1.5	1.9	2.3	2.7	3.0	3.5	4.2	6.0
	1.7	1.9	2.1	2.4	2.5	2.8	3.2	3.7	4.4	5.2	5.7	6.6	8.1	11.3
5 or 95	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.4	1.6	1.9	2.2	2.5	3.1	4.4
	1.3	1.4	1.5	1.7	1.8	2.0	2.3	2.7	3.2	3.7	4.2	4.8	5.9	8.2
1 or 99	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.4	2.0
	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.2	1.4	1.7	1.9	2.1	2.7	3.7

Appendix Table II: Sampling Errors of Differences for "Per Adult" Responses
(expressed in percentages)

Size of Subgroup	Size of Subgroup											
	8000	5000	4000	2000	1500	1250	1000	700	500	300	200	100
For percentages around 35% and 65%												
8000	1.6-4.1	1.8-4.4	1.9-4.6	2.5-5.5	2.8-6.0	3.0-6.4	3.4-6.9	3.9-7.9	4.6-9.1	5.9-11.4	7.2-13.7	10.1-19.0
5000		2.0-4.7	2.1-4.9	2.6-5.7	2.9-6.2	3.2-6.6	3.5-7.1	4.0-8.1	4.7-9.2	5.9-11.5	7.2-13.8	10.1-19.1
4000			2.2-5.1	2.7-5.9	3.0-6.4	3.2-6.7	3.5-7.2	4.1-8.2	4.7-9.3	6.0-11.6	7.2-13.9	10.1-19.2
2000				3.2-6.6	3.4-7.0	3.6-7.4	3.9-7.8	4.4-8.7	5.0-9.8	6.2-11.9	7.4-14.2	10.2-19.4
1500					3.6-7.4	3.8-7.7	4.1-8.2	4.6-9.1	5.2-10.1	6.3-12.2	7.5-14.4	10.3-19.6
1250						4.0-8.0	4.2-8.5	4.7-9.3	5.3-10.3	6.4-12.4	7.6-14.6	10.4-19.7
1000							4.5-8.9	4.9-9.7	5.5-10.6	6.6-12.7	7.8-14.8	10.5-19.9
700								5.4-10.4	5.9-11.3	6.9-13.2	8.0-15.3	10.7-20.2
500									6.3-12.2	7.2-14.0	8.4-15.9	11.0-20.7
300										8.2-15.6	9.1-17.3	11.5-21.8
200											10.0-18.9	12.2-23.1
100												14.1-26.6
For percentages around 20% and 80%												
8000	1.3-3.3	1.4-3.5	1.5-3.7	2.0-4.4	2.3-4.8	2.4-5.1	2.7-5.5	3.2-6.3	3.7-7.3	4.7-9.1	5.7-11.0	8.0-15.2
5000		1.6-3.8	1.7-3.9	2.1-4.6	2.4-5.0	2.5-5.3	2.8-5.7	3.2-6.4	3.8-7.4	4.8-9.2	5.8-11.1	8.1-15.3
4000			1.8-4.1	2.2-4.7	2.4-5.1	2.6-5.4	2.8-5.8	3.3-6.6	3.8-7.5	4.8-9.3	5.8-11.1	8.1-15.4
2000				2.5-5.3	2.7-5.6	2.9-5.9	3.1-6.2	3.5-7.0	4.0-7.8	5.0-9.5	5.9-11.4	8.2-15.5
1500					2.9-5.9	3.1-6.2	3.3-6.5	3.7-7.2	4.1-8.1	5.1-9.8	6.0-11.5	8.2-15.7
1250						3.2-6.4	3.4-6.8	3.8-7.4	4.2-8.2	5.1-9.9	6.1-11.7	8.3-15.8
1000							3.6-7.1	3.9-7.7	4.4-8.5	5.3-10.2	6.2-11.8	8.4-15.9
700								4.3-8.3	4.7-9.0	5.5-10.6	6.4-12.2	8.6-16.2
500									5.1-9.8	5.8-11.2	6.7-12.7	8.8-16.6
300										6.5-12.5	7.3-13.8	9.2-17.4
200											8.0-15.1	9.8-18.5
100												11.3-21.3

For percentages around 10% and 90%

8000	0.9-2.5	1.1-2.7	1.2-2.8	1.5-3.3	1.7-3.6	1.8-3.8	2.0-4.1	2.4-4.7	2.8-5.4	3.5-6.8	4.3-8.2	-----
5000		1.2-2.8	1.3-2.9	1.6-3.4	1.8-3.7	1.9-3.9	2.1-4.2	2.4-4.8	2.8-5.5	3.6-6.9	4.3-8.3	-----
4000			1.3-3.0	1.6-3.5	1.8-3.8	1.9-4.0	2.1-4.3	2.5-4.9	2.8-5.6	3.6-7.0	4.4-8.3	-----
2000				1.9-4.0	2.1-4.2	2.2-4.4	2.3-4.7	2.6-5.2	3.0-5.9	3.7-7.1	4.5-8.5	-----
1500					2.2-4.5	2.3-4.6	2.4-4.9	2.7-5.4	3.1-6.1	3.8-7.3	4.5-8.6	-----
1250						2.4-4.8	2.5-5.1	2.8-5.6	3.2-6.2	3.9-7.4	4.6-8.8	-----
1000							2.7-5.3	3.0-5.8	3.3-6.4	3.9-7.6	4.7-8.9	-----
700								3.2-6.2	3.5-6.8	4.1-7.9	4.8-9.2	-----
500									3.8-7.3	4.3-8.4	5.0-9.5	-----
300										4.9-9.4	5.5-10.4	-----
200											6.0-11.3	-----

For percentages around 5% and 95%

8000	0.7-1.8	0.8-1.9	0.8-2.0	1.1-2.4	1.2-2.6	1.3-2.8	1.5-3.0	1.7-3.4	2.0-4.0	2.6-4.9	3.1-6.0	-----
5000		0.9-2.1	0.9-2.1	1.2-2.5	1.3-2.7	1.4-2.9	1.5-3.1	1.8-3.5	2.0-4.0	2.6-5.0	3.1-6.0	-----
4000			1.0-2.2	1.2-2.6	1.3-2.8	1.4-2.9	1.5-3.1	1.8-3.6	2.1-4.1	2.6-5.1	3.2-6.1	-----
2000				1.4-2.9	1.5-3.1	1.6-3.2	1.7-3.4	1.9-3.8	2.2-4.3	2.7-5.2	3.2-6.2	-----
1500					1.6-3.2	1.7-3.4	1.8-3.6	2.0-3.9	2.2-4.4	2.8-5.3	3.3-6.3	-----
1250						1.7-3.5	1.8-3.7	2.1-4.1	2.3-4.5	2.8-5.4	3.3-6.4	-----
1000							1.9-3.9	2.1-4.2	2.4-4.6	2.9-5.5	3.4-6.5	-----
700								2.3-4.5	2.6-4.9	3.0-5.8	3.5-6.7	-----
500									2.8-5.3	3.1-6.1	3.6-6.9	-----
300										3.6-6.8	4.0-7.5	-----
200											4.4-8.2	-----

Appendix Table III: Approximate Sampling Errors of Percentages for "Per Interview" Responses
(expressed in percentages)

Reported Percentage	Number of Interviews										
	4200	3000	2000	1500	1000	700	500	400	300	200	100
50	1.5	1.8	2.2	2.6	3.2	3.8	4.5	5.0	5.8	7.1	10.0
	2.6	2.9	3.4	3.9	4.6	5.3	6.1	6.7	7.6	9.1	12.7
30 or 70	1.4	1.7	2.0	2.4	2.9	3.5	4.1	4.6	5.3	6.5	9.2
	2.3	2.7	3.2	3.5	4.2	4.8	5.6	6.1	6.9	8.4	11.6
20 or 80	1.2	1.5	1.8	2.1	2.5	3.0	3.6	4.0	4.6	5.7	8.0
	2.0	2.3	2.8	3.1	3.7	4.2	4.9	5.3	6.0	7.3	10.2
10 or 90	0.9	1.1	1.3	1.5	1.9	2.3	2.7	3.0	3.5	4.2	6.0
	1.5	1.8	2.1	2.3	2.8	3.2	3.6	4.0	4.5	5.5	7.6
5 or 95	0.7	0.8	1.0	1.1	1.4	1.6	1.9	2.2	2.5	3.1	4.4
	1.1	1.3	1.5	1.7	2.0	2.3	2.7	2.9	3.3	4.0	5.5

Appendix Table IV: Sampling Errors of Differences for "Per Interview" Responses
(expressed in percentages)

Size of Subgroup	Size of Subgroup							
	2000	1500	1000	700	500	300	200	100
For percentages from about 35% to 65%								
2000	3.2-4.9	3.4-5.2 3.7-5.5	3.9-5.7 4.1-6.0 4.5-6.5	4.4-6.3 4.6-6.5 4.9-7.0 5.4-7.4	5.0-7.0 5.2-7.2 5.5-7.6 5.9-8.0 6.3-8.6	6.2-8.3 6.3-8.4 6.6-8.9 6.9-9.2 7.2-9.7 8.2-10.7	7.4-9.8 7.5-9.9 7.8-10.2 8.0-10.5 8.4-11.0 9.1-11.9 10.0-12.9	10.2-13.2 10.3-13.3 10.5-13.5 10.7-13.8 11.0-14.1 11.5-14.8 12.2-15.7 14.1-18.0
1500								
1000								
700								
500								
300								
200								
100								
For percentages around 20% and 80%								
2000	2.5-3.9	2.7-4.1 2.9-4.4	3.1-4.6 3.3-4.8 3.6-5.2	3.5-5.0 3.7-5.2 3.9-5.6 4.3-6.0	4.0-5.6 4.1-5.8 4.4-6.1 4.7-6.4 5.1-6.8	5.0-6.6 5.1-6.7 5.3-7.1 5.5-7.4 5.8-7.8 6.5-8.6	5.9-7.8 6.0-7.9 6.2-8.2 6.4-8.4 6.7-8.8 7.3-9.5 8.0-10.3	8.2-10.6 8.2-10.6 8.4-10.8 8.6-11.0 8.8-11.3 9.2-11.8 9.8-12.6 11.3-14.4
1500								
1000								
700								
500								
300								
200								
100								

For percentages around 10% and 90%

2000	1.9-2.9	2.1-3.1	2.3-3.4	2.6-3.8	3.0-4.2	3.7-5.0	4.5-5.9	6.1-7.9
1500		2.2-3.3	2.4-3.6	2.7-3.9	3.1-4.3	3.8-5.0	4.5-6.0	6.2-8.0
1000			2.7-3.9	3.0-4.2	3.3-4.6	3.9-5.3	4.7-6.1	6.3-8.1
700				3.2-4.5	3.5-4.8	4.1-5.5	4.8-6.3	6.4-8.3
500					3.8-5.1	4.3-5.8	5.0-6.6	6.6-8.5
300						4.9-6.4	5.5-7.1	6.9-8.9
200							6.0-7.7	7.3-9.4
100								8.5-10.8

For percentages around 5% and 95%

2000	1.4-2.1	1.5-2.3	1.7-2.5	1.9-2.7	2.2-3.0	2.7-3.6	3.2-4.3	
1500		1.6-2.4	1.8-2.6	2.0-2.9	2.2-3.1	2.8-3.7	3.3-4.3	
1000			1.9-2.8	2.1-3.0	2.4-3.3	2.9-3.9	3.4-4.4	
700				2.3-3.2	2.6-3.5	3.0-4.0	3.5-4.6	
500					2.8-3.7	3.1-4.2	3.6-4.8	
300						3.6-4.7	4.0-5.2	
200							4.4-5.6	

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