

Travel behaviors of international students

at Iowa State University

by

Shihlin Sung

A Thesis Submitted to the

Graduate Faculty in Partial Fulfillment of the

Requirements for the Degree of

MASTER OF SCIENCE

Department: Hotel, Restaurant, and Institution Management

Major: Hotel, Restaurant, and Institution Management

Signatures have been redacted for privacy

Iowa State University
Ames, Iowa

1994

TABLE OF CONTENTS

	<u>Page</u>
GENERAL INTRODUCTION	1
Thesis Organization	3
REVIEW OF LITERATURE	4
Definition of Travel	4
Travel Behavior Studies	6
International Students in the United States	16
Factor Analysis with Reliability Measurement	19
TRAVEL BEHAVIORS OF INTERNATIONAL STUDENTS AT A MIDWESTERN UNIVERSITY	21
Abstract	21
Introduction	22
Purpose and Methodology	24
Results	26
Conclusions	32
References	42
INTERNATIONAL STUDENTS' TRAVEL CHARACTERISTICS: AN EXPLORATORY STUDY	43
Abstract	43
Introduction	44
Methodology	45
Results	47
Conclusions	55
References	68
GENERAL CONCLUSIONS	69
Summary	69
Recommendations	72

REFERENCES	74
ACKNOWLEDGMENTS	77
APPENDIX A. HUMAN SUBJECTS REVIEW COMMITTEE APPROVAL	78
APPENDIX B. SURVEY QUESTIONNAIRE WITH COVER LETTER AND FOLLOW-UP LETTER	83

GENERAL INTRODUCTION

Tourism in the United States of America (U.S.) generates income and employment for millions of Americans. According to the U.S. Bureau of the Census (1993), the tourism industry is an affluent and growing market. Not only is the number of individuals that the tourism industry employs increasing each year, but the number of trips and the amount of money spent by U.S. travelers are increasing. However, as a result of changing demographics of the U.S. population, travel and tourism marketers face a highly competitive environment. In order to make significant contributions to the development of marketing strategies, studying travel behaviors of each market segment becomes increasingly important.

The overall objective of using a market segmentation strategy is to improve an organization's competitive position and better serve the needs of its customers (Weinstein, 1987). Research on travel behaviors of market segments can bring and create a much more aggressive approach to the marketplace. Age is one of the most important demographic variables influencing consumer behaviors. In fact, the age structure of the population is of greater interest to tourism planners or managers than any other demographic variable (Mieczkowski, 1990).

Travel behaviors of youths and young adults in the U.S. have been the focus of several studies. Mostly, those studies focused on American citizens. However, there is a rapidly growing segment of the U.S. population of which little is known. In the recent past, the number of international students in the U.S. has been increasing every year.

According to the Institute of International Education's (1993) annual census in the 1991 - 1992 academic year, the number of international students in higher education on U.S. campuses increased 3.0% over the same period a year earlier, to 419,590. In the 1992 - 1993 academic year, the number increased 4.5% over the previous year, to 438,620.

Because college students seem to have more time to travel during school recesses, such as Spring and Semester Breaks (Epperson, 1977), they may contribute a share to the growing U.S. tourism market. Also, international students are not allowed to work off-campus, and they are not able to go home during breaks.

It is critical to understand the travel behaviors of international students, which have been and will be a significant segment in the travel market. Therefore, the purpose of this study was to determine travel behaviors of international students at Iowa State University (ISU). The five major objectives were to identify:

1. Frequency of travel-related activities and travel patterns of ISU international students;
2. Their information sources and trip destination selection;
3. Their travel-related characteristics in general and the longest trip taken in the last 12 months;
4. Their demographic characteristics; and
5. Relationships between their demographic characteristics and travel behaviors.

Thesis Organization

This thesis is presented such that a general introduction section and literature review section related to this research precede two manuscripts and a general conclusion. The two manuscripts are written according to specifications for submission to refereed scholarly journals for possible publication.

The first manuscript, "Travel Behaviors of International Students at a Midwestern University," will be submitted to the Journal of Travel Research. This paper identifies the relationships between international students' demographic characteristics and their travel behaviors, such as travel-related activities and travel patterns. The second manuscript, "International Students' Travel Characteristics: An Exploratory Study," will be submitted to the Journal of Travel and Tourism Marketing. This paper describes the general travel patterns, the longest trip taken in the continental U.S. in the last 12 months, information sources selection, and trip destinations taken by international students at a midwestern university. The general conclusion will summarize the results, the conclusions, and the suggestions of the study. Authorship of the manuscripts is shared with Dr. Cathy H. C. Hsu, assistant professor in the Department of Hotel, Restaurant, and Institution Management at ISU.

A copy of the Review of Research Involving Human Subjects is presented in Appendix A. At ISU, the Human Subjects Review Committee reviews all researches involving human subjects. A copy of the questionnaire, cover letter, and follow-up letter is presented in Appendix B.

REVIEW OF LITERATURE

Definition of Travel

With the rapid development of tourism in the U.S. and the world, the use of a precise definition of travel becomes more and more important. The main purpose for having an exact definition of travel used in the tourism industry is to minimize confusion and inconsistency, and to establish adequate statistical standards and comparisons for research (Hunt & Layne, 1991; Mieczkowski, 1990). However, it is impossible to develop a universal and valid definition for all types of studies in the tourism industry.

In the U.S., each state presents its own definition of travelers and tourists. For Virginia, the definition of a tourist is "anyone residing outside the state who visits Virginia for vacation or pleasure" (Epperson, 1977, p. 16). For Nevada, tourists are "residents of states other than Nevada who visit the state or stop somewhere in the state while en route through and without regard for trip purpose" (Epperson, 1997, p. 17). For some states, degree of activity defines the difference between "travelers" and "tourists". For Utah, "a *traveler* passes through the state on his or her way to another state", while "a *tourist* will participate in some activity while in the state" (Mieczkowski, 1990, p. 30).

During the past several years, scientists and professionals began to discuss the differences in definitions and terminologies used in the tourism industry. Although numerous examples of definitions for travel were presented, and these definitions seem to have consistencies, most differences were mainly on the following points -- the purpose of travel, the distance traveled, and the length of time away from home (Epperson, 1977).

The purposes of travel could be divided into pleasure, business, visits to friends or relatives, or other personal reasons for travel (Epperson, 1977; Mieczkowski, 1990). Different research groups or organizations may be interested in different areas of travel. The general purpose of travel could be "the action and activities of people taking trips to a place or places outside of their home communities for any purpose except daily commuting to and from work" (McIntosh & Goeldner, 1990, p. 10). A pleasure trip could be defined as "a trip [that] required [an] individual to travel more than 100 miles one way, spend at least one night away from home, and use commercial accommodations and/or transportation" (Javalgi, Thomas, & Rao, 1992, p. 15).

The minimum distance traveled to be classified as a trip was argued between 50 and 100 miles, or even more. Frechtling (1976) thought that a trip was "going to a place outside of one's home area or community and returning" (p. 4), and he suggested that the minimum distance was 50 miles. As travel becomes easier and the boundaries of cities increase, the distance of 50 miles could be too narrow. Mieczkowski (1990) suggested that travel is "trips taken away from home, overnight or on one-day trip, to a place 100 miles or more from home" or "all round trips with one-way route mileage of 100 miles or more" (p. 29).

Most researchers in the tourism industry find a definition limiting a "tourist" or "traveler" to a person who spends at least one night away from home to be too restrictive. Many would argue that day trips or excursions without an overnight stay should be included in travel (Epperson, 1977; Hunt & Layne, 1991; Mieczkowski, 1990). According to McIntosh & Goeldner (1990), the definition of a trip is "each time a person

goes to a place at least 100 miles away from home and returns" (p. 8). However, this definition excludes tourists in metropolitan areas going to resorts less than 100 miles away and staying for a weekend or a whole week. Therefore, "or is out-of-town one or more nights" (McIntosh & Goeldner, 1990, p. 8) was added for clarification.

Travel Behavior Studies

Consumers are a basic element in marketing. Therefore, an understanding of consumer behaviors is essential to the success of any marketing program. The major purpose of studying consumer behaviors is to identify and satisfy the needs and wants of consumers. The definition of consumer behavior is:

Briefly, consumer behavior involves the purchasing, and other consumption-related activities, of people engaging in the exchange process... A more specific definition is: Consumer behaviors are acts, processes, and social relationships exhibited by individuals, groups, and organizations in the obtainment, use of, and consequent experience with products, services and other resources. (Zaltman & Wallendorf, 1983, p. 5)

From the marketing management point of view, the study of consumer behaviors can help design marketing strategies, measure marketing performance, and segment the market (Schiffman & Kanuk, 1983). The following sections are a review of consumer behavior studies in the tourism industry.

Travel Behaviors Related to Demographics

The impact of demographic characteristics, such as age, education, and gender, on the tourism industry was investigated by researchers. In general, young travelers have more patience with inconvenience and discomforts because they feel compensated by the new ideas and experiences they gather from traveling (Epperson, 1977; McIntosh & Goeldner, 1990). Middle-aged travelers are more concerned about the comforts or situations of their trips. Elderly travelers tend to travel in groups due to concern about their safety and health problems.

Education has a high correlation with travel behaviors. Usually, the higher the level of education, the longer vacation trips and the more money spent while traveling (Epperson, 1977; McIntosh & Goeldner, 1990). Education is also associated with income. Normally, the higher the level of education, the higher income. As income increases, discretionary income increases, and frequency of travel and travel expenditures increases.

There are also significant connections between gender and travel behaviors. While traveling females are more likely to partake in educational and cultural activities, males are still more likely to pursue dynamic activities, such as hunting, fishing, and sports (Mieczkowski, 1990). Female travelers are more likely to choose a stable or safe form of travel. Male travelers are more likely to choose risk-taking or active forms of travel.

Travel patterns or behaviors for various segments of the tourism market have been the focus of several studies. Lawson's (1991) study on travel patterns of international visitors to New Zealand found that vacation activities correlated with the age of adult

members of the family. Activities for young singles and young couples were highly active, such as rafting and sports. Motorcamps also were frequently used by young singles and young couples. In addition, due to the fact that young single people are relatively free of professional and family obligations, they have a higher degree of mobility and a higher propensity for participation in travel. Young singles tended to stay a longer time (34 nights) in New Zealand than the overall population (20 nights) in Lawson's study (1991). But, young singles were considered to be low spenders which was influenced by the large number of respondents staying with friends and relatives. The presence of small children in a family would reduce participation in tourist activities because of inconveniences in traveling, and the restraints of time and income (Epperson, 1977; Lawson, 1991). Researchers also suggested that the presence of young children in a family would reduce the number of trips taken (Epperson, 1977; McIntosh & Goeldner, 1990). As children grow up and leave home, married couples revive their interest in travel, and begin to travel more frequently.

Age segmentation research indicated that the maximum participation rate in tourism occurs in the age bracket of 18-45 (Mieczkowski, 1990). Age distribution of the U.S. population and "person-trips" are shown in Table 1 (McIntosh & Goeldner, 1990, p. 367). According to Frechtling (1976), a "person-trip" is a person on a trip (p. 14).

Although more than half (55%) of the travelers were between the ages of 25 and 54, and contributed more than their share to the tourism industry, a number of studies focused on travelers aged 55 and older. This market has been called the older market, the mature market, or the senior market (Javalgi et al., 1992; McIntosh & Goeldner, 1990;

Table 1. Person-trips by age groups

Age	U.S. Population	Person-Trips 1987
Less than 18	26.3 %	15.0 %
18-24 years	11.5	12.0
25-34 years	17.8	22.0
35-44 years	13.7	19.0
45-54 years	9.5	14.0
55-64 years	9.2	10.0
65 years & over	12.0	8.0

Source: McIntosh, R. W. & Goeldner, C. R. (1990). *Tourism Principles, Practices, Philosophies* (6th ed.). New York: John Wiley & Sons, Inc.

Shoemaker, 1989). The reasons for focusing on the older market are that people in this market have the time and money to travel, travel more often, go greater distances, and stay away longer than any other age group (Rosenfeld, 1986; Shoemaker, 1989). Also, the growth rate of the senior population has steadily increased. An estimated 59 million people in the U.S. will be at the age of 55 and over by the year 2000 (Javalgi et al., 1992).

Several authors have studied travel pattern differences between seniors and nonseniors. Anderson and Langmeyer (1982) presented similarities and differences between travelers under and over the age of 50. They found that travelers under-50 were more likely to take pleasure trips for rest and relaxation, to visit relatives, to participate in outdoor recreation, or to visit man-made attractions such as theme parks; and more likely to travel during the months of July and August. However, the over-50 group preferred to visit historical sites, and tended to travel during the months of August, September,

October, and November. Both groups identified that the most frequent length of stay away from home was between four and nine nights. However, the second most popular length of trips for the under-50 group was one to three nights, and for the older group was between 10 and 15 nights. It suggested that spur-of-the-moment trips were more popular in the under-50 bracket, and pre-planned and leisure trips were more popular in the older group. Under-50 travelers also took less expensive trips than older travelers.

Javalgi et al. (1992) reported that while both seniors (age 55 and over) and nonseniors (under 55) used automobiles, hotels, and motels as the most popular modes of transportation and accommodation, senior travelers were more likely to travel by bus and airplane, and choose motels than nonseniors. The most common type of trip taken by both groups was to visit friends and/or relatives. However, nonseniors were more likely to take a close-to-home pleasure trip, a city trip, an outdoor vacation, a resort vacation, and a trip to a theme park, exhibition, or special event. And, seniors were more likely to take a cruise or guided tour. Several studies proposed that seniors seem to prefer packaged travel and use travel agents in greater percentages than nonseniors (Anderson & Langmeyer, 1982; Capella & Greco, 1987; Javalgi et al., 1992). Therefore, researchers suggested that marketers designed travel and tourism marketing programs or packages to respond to the travel behavior differences between these two age groups.

There were also studies that investigated the relationship between retirement status and travel behaviors. Research indicated that only 7.0% of respondents during the pre-retirement stage conducted specific search or evaluation for traveling plans because consumers knew that there would be many changes in prices and schedules before they

really went on vacations (Tongren, 1980). After retirement, if the needs for travel decisions were raised, retirees would begin to search travel information. Blazey (1992) found that retirement status was not associated with amount of travel and planning time. Travel neither increased nor decreased after retirement. Although retirees may have more time to travel, personal problems, such as health conditions, physical energy, perception of age, and disability, may constrain traveling. Blazey (1992) also found that the use of maps, word of mouth, pamphlets or brochures, and travel agents as sources of travel information in pre-retirement and retirement groups was clearly evident. Due to more than 50% of all trips were taken using automobiles in both groups, maps as the primary source of travel information should not be unexpected.

Gitelson and Kerstetter's (1990) study on vacation behavior found that there was a relationship between age and benefits sought, such as relaxation, excitement, social, and explorer benefits. In this study, the older the age group, the lower the importance scores on benefit. Notably, travelers less than 30 years of age were most likely to seek the benefit of relaxation on vacation, while travelers 60 to 69 years old were the least likely to seek relaxation. However, Atchley (1986) suggested the opposite -- that people tended to seek relaxing experiences as they aged. Gitelson and Kerstetter (1990) also found that females gave higher importance scores to the four groups of benefits than males. Except for the excitement benefit, the other three benefits found significant differences between genders. Individuals with income between \$25,000 to \$34,999 were more likely to rate explorer benefit higher than other income groups. However, there was no significant difference between benefits sought and level of education.

Researchers of tourist information-seeking behaviors also found that there were relationships between information sources and demographics. Capella and Greco (1987), investigating information sources of the elderly for vacation decisions, found that demographics had a wide range of influences in travel information selection. "Family", the most important information source, was used more by people with higher social class and males. On the other hand, "Magazines" were used more by people with lower social class. "Newspapers" were also used more by people of lower social class and females. "Consumer publications" were used more by respondents with less education. "Direct mail" was used more by people with lower social class and lower education. "Point-of-purchase displays" were used more by married respondents. "Neighbors" were used more by people with better education, lower social class, and males. However, respondents with various demographic characteristics did not use past experience, friends, television, radio, and travel agents significantly differently.

Chon (1990) examined significant differences between information-seeking and non-information-seeking travelers with regard to demographics. The findings showed that information seekers were more likely to be females than males. The average age of information-seeking travelers was older than non-information-seeking travelers. However, there were no significant differences related to marital status, education, or household income.

Travelers of various demographic groups having different destination choices were noted in several studies. Woodside, Pearce, and Wallo (1989) analyzed visitors to New Orleans and six competing cities, New York, San Francisco, Los Angeles, Washington,

D.C., Chicago, and Boston, using data collected by the 1985 Canadian study of U.S. pleasure travel behaviors. The results indicated that there were significant differences in destination selection for past travel based on demographic groups, such as home region, occupation, and education. Also, there were significant differences in destination selection for future travel based on demographic groups, such as home region, age, marital status, race, education, and occupation.

U.S. overseas tourists with different demographic characteristics also demonstrated different country choices. Although each country destination appealed to all demographic groups, some differences appeared in selecting foreign destinations, according to the 1985 Canadian study of U.S. pleasure travel behaviors (Menezes & Chandra, 1989; Taylor, 1987). Menezes, Chandra (1989), and Taylor (1987) found that Mexico appealed more (35.8%) to U.S. travelers younger than 31 years old than the other four destination areas, Canada (32.8%), the Caribbean (30.2%), Europe (29.5%), and the Far East (17.2%). Europe had the oldest market in which 42.8% of travelers were over 51 years of age, compared to 35.4% for Canada, 34.3% for the Far East, 32.9% for the Caribbean, 31.5% for Mexico. The Far East appealed to 28.6% of travelers in the age range of 31 to 40 years, followed by 18.7% for Mexico, 18.2% for the Caribbean, 15.9% for Canada, and 12.9% for Europe. More than one-third (37.1%) of the U.S. tourists going to the Far East had incomes over \$60,000, followed by 23.4% to Europe, 21.8% to the Caribbean, 18% for Mexico, 16.6% for Canada. Menezes and Chandra (1989) also found that married couples made up a greater portion (57.0%) of overseas markets, including Canada, Mexico, the Caribbean, and the Far East.

Youth and Young Adult Markets

The term "youth" is difficult to define. The most common way to define youth is to use an age range. "Youths" could be persons between the ages of 15 and 24, with two separate groups of 15 to 19 years old and 20 to 24 years old (Clarke, 1992). However, for the purposes of various studies, the age range for youth could be broader, such as age 15 to 29 (Mieczkowski, 1990), age 16 to 27 (Mitchell, 1993), or a single person between 16 and 29 years old (Clarke, 1992).

For the young adult market, the age segments could be divided into two groups -- 18 to 24 and 25 to 34 years old (McIntosh & Goeldner, 1990). Because this market exhibits lower unemployment, higher education level, and greater potential earning power, this group's purchasing power and influence cannot be ignored (Vandermerwe, 1990). Moreover, in order to enjoy a meaningful life, young adults want more leisure time to realize their own personal and family interests, such as health, nature, friends, and good family relationships (Vandermerwe, 1990). Therefore, this market has a substantial potential for increased travel in the future.

Researchers identified six major barriers that inhibit travel: expense, lack of time, health limitations, presence of young children, lack of interest, and fear and safety (Epperson, 1977; Lansing & Blood, 1964; McIntosh & Goeldner, 1990). Youths in their college years can find travel time between terms and enjoy the best years of health (Vogt, 1976). They are single or newly married with no children. Youths are well-suited to travel.

In the past, because researchers felt that youth travelers seldom used traditional tour

services, and they tended to travel more independently and spontaneously, the youth market has received little attention (Vogt, 1976). Vogt (1976) named this segment of the market the "wandering youth" or "noninstitutionalized form of tourism" (p. 27). The majority of wanderers are youthful college students with a tight budget. The wandering youth constitutes a specific segment of demand because the young people tend to participate in cheaper forms of recreation and tourism, and they are eager to see the world and to experience something new.

Research about the youth market also examined the youth foreign inclusive tour (IT) which is different from the youth market for independent travel. The study by Clarke (1992) used data collected by the International Leisure Group's Club 18-30 Summer 1989 survey, which included 20,000 usable questionnaires from a population exceeding 70,000. The results showed that the primary three needs and benefits for the younger people purchasing inclusive tours in the United Kingdom were for a fun time, meeting people of own age, and the availability of nightlife. The majority of youths (70%) were first time buyers. The basis of a friend's recommendation (word-of-mouth) (18%) was the most important reason for purchasing the IT package. A special deal (15%) was another reason, which suggested price discounts might also attract first-time buyers. August and September were the two primary departure peaks. Over three-quarters of the youths purchased an 8- to 15-night package, which suggested that they preferred the two-week summer break. The study also found that the majority of youths took just one vacation a year, although 14% of youths took three or more.

International Students in the United States

The United States, with the largest number of international students of any country in the world, enrolls nearly one-third of all students studying abroad (Institute of International Education, 1993). An international or foreign student in the U.S. could be defined as "anyone who is enrolled in courses at institutions of higher education in the U.S. who is not a U.S. citizen, an immigrant (permanent resident), or a refugee" (Institute of International Education, 1993, p. iv). In the recent past, the number of international students in the U.S. has been increasing every year. According to the Institute of International Education (1993) annual census in the 1991 - 1992 academic year, the number of international students in higher education on U.S. campuses increased 3.0% over the same period a year earlier, to about 419,590 (Table 2). In 1992 - 1993 academic year, the number increased 4.5% over a year earlier, to about 438,620.

For individual regions, more than half of all international students (59.4%) came from Asian countries in the 1992 - 1993 academic year, followed by Europe (13.2%), Latin America (9.9%), the Middle East (6.9%), North America (4.9%), Africa (4.7%), and Oceania (1.0%). For individual countries, international students mainly came from China (10.3%), followed by Japan (9.8%), Taiwan (8.5%), India (8.2%), Korea (6.5%), Canada (4.8%), Hong Kong (3.2%), Malaysia (2.9%), Indonesia (2.5%), and Thailand (2.0%) in the 1992 - 1993 academic year (Table 3). It was interesting to note that nine of the top ten home countries of international students to the U. S. were in Asia.

For the past four years, nearly two-thirds of international students in the U.S. were male (Table 4). The majority of international students studying abroad were single. The

Table 2. International students in the U.S. by world region of origin

Year	Africa	Asia	Europe	Latin America	Middle East	North America	Oceania	Total Number ^a
1954/55	3.6%	29.7%	15.2%	24.7%	11.9%	13.8%	1.0%	34,232
1959/60	4.0	36.7	13.2	19.4	13.4	11.9	1.2	48,486
1964/65	8.4	37.4	12.3	16.6	12.1	11.4	1.5	82,045
1969/70	5.6	37.8	13.7	18.5	9.9	9.9	1.5	134,959
1974/75	11.9	37.8	8.9	17.0	15.5	5.6	1.7	154,580
1979/80	12.6	28.6	7.9	14.8	29.2	5.4	1.4	286,340
1984/85	11.6	42.0	9.7	14.2	16.5	4.7	1.2	342,110
1989/90	6.4	53.8	11.9	12.4	9.7	4.8	1.0	386,850
1990/91	5.9	56.4	12.2	11.8	8.1	4.6	1.0	407,530
1991/92	5.2	58.7	12.8	10.4	7.3	4.7	0.9	419,590
1992/93	4.7	59.4	13.2	9.9	6.9	4.9	1.0	438,620

^a Includes students classified as stateless or of unknown origin.

Source: Institute of International Education. (1993). *Open Doors 1992/1993*. New York: Author.

Table 3. International students in the U.S. by top ten countries

Countries	1989/90	1990/91	1991/92	1992/93
China	8.6%	9.7	10.2%	10.3%
Japan	7.7	9.0	9.7	9.8
Taiwan	8.0	8.2	8.5	8.5
India	6.8	7.1	7.8	8.2
Korea, Republic of	5.6	5.7	6.1	6.5
Canada	4.6	4.5	4.6	4.8
Hong Kong	2.9	3.1	3.1	3.2
Malaysia	3.6	3.3	3.0	2.9
Indonesia	2.4	2.3	2.4	2.5
Thailand ^a	1.7	1.7	1.8	2.0

^a Thailand was not one of the top ten leading countries in 1989/90 and 1990/91.

Source: Institute of International Education. (1993). *Open Doors 1992/1993*. New York: Author.

Table 4. International students in the U. S. by demographic characteristics

Category	1989/90	1990/91	1991/92	1992/93
<u>Gender</u>				
Male	66.1%	64.0%	63.7%	63.0%
Female	33.9	36.0	36.3	37.0
<u>Marital Status</u>				
Single	80.1%	78.5%	80.7%	82.5%
Married	19.9	21.5	19.3	17.5
<u>Education Level</u>				
Undergraduate	47.7%	46.6%	47.0%	47.9%
Graduate	43.9	44.7	45.6	44.1
Other	8.4	8.7	7.4	8.0
<u>Primary Source of Funds</u>				
Personal & family	63.7%	64.3%	66.2%	65.6%
U.S. College/Univ.	18.2	18.8	19.0	18.8
Home government	6.7	5.8	5.2	5.3
Current Employment	2.1	2.3	2.3	2.7
U.S. private sponsor	3.1	3.4	2.8	2.5
Foreign privt. sponsor	2.2	2.3	2.0	2.1
U.S. government	2.2	1.9	1.4	1.3
International organztn.	0.6	0.6	0.5	0.5
Other	1.2	0.6	0.6	1.2

Source: Institute of International Education. (1993). *Open Doors 1992/1993*. New York: Author.

highest percentage for single persons (82.5%) was in the 1992 - 1993 academic year. Each year, there were slightly more undergraduate students enrolling in the U.S. than graduate students. Approximately 47% of international students were undergraduate students. Another 44% were graduate students. The remaining 8% was made up of international students enrolling in non-degree or intensive English language programs, or

doing practical training. The major sources of financial support for the international students were personal and family, followed by U.S. College/University. Home government/university was a distanced third.

Because college students seem to have more free time to travel during school recess, such as Spring and Semester Breaks (Epperson, 1977), they may contribute their fair share to the growing U.S. tourism market. International students especially are not allowed to work off-campus, and do not have their homes close by to visit. In addition, international students may have realized that visiting various parts of the country could aid their understanding of the U.S. culture and appreciation of American people. International students also are likely to travel to escape from their daily routine and academic-related pressures. Therefore, even though international students are in the U.S. temporarily, they tend to travel around.

Factor Analysis with Reliability Measurement

The general purpose for using factor analysis is to summarize items contained in a large number of variables into a smaller number of factors. This summarization is accomplished by the analysis of intercorrelations of variables. Sometimes researchers use factor analysis as a means of exploring data for possible data reduction; this is the so-called exploratory factor analysis. Confirmatory factor analysis is used as a means of testing the data's confirmation with researchers' hypotheses that certain variables belong to one particular dimension (Kim & Mueller, 1978).

The principal-components method is used to extract factors for both analyses. Most

researchers use the eigenvalue statistic to decide how many factors to use in their analyses. The eigenvalue indicates the amount of variance underlying all the variables associated with each factor. Usually, the number of factors with eigenvalues greater than one is the number of factors used in the analysis. Rotations are a method of simplifying factors so that each variable tends to load highly on only one factor. Through the factor loading, the correlation of a variable with a factor, researchers can decide which variables should be grouped together.

"Reliability is the degree of consistency that the instrument or procedure demonstrates: whatever it is measuring, it does so consistently" (Best & Kahn, 1989, p. 160). And, the instrument's "reliability depends on how much of the variation in scores is attributable to random or chance errors" (Churchill, 1979, p. 65). Because observed scores through research instruments are rarely equal to true scores, errors of measurement occur. If errors of measurement are too large, research instruments are not valid to measure whatever researchers want to know. In order to test the degree of errors influencing test scores, reliability coefficients are used to determine the adequacy of the variables as effective instruments of measurements (Churchill, 1979; Holzinger & Harman, 1941). Reliability coefficients are represented on a scale from 0.00, indicating complete unreliability, to 1.00, indicating perfect reliability (Womer, 1968). With instruments having a high coefficient of reliability, errors of measurement have been reduced to a minimum. In early stages of research, a reliability coefficient of 0.70 is considered acceptable (Nunnally, 1978).

**TRAVEL BEHAVIORS OF INTERNATIONAL STUDENTS
AT A MIDWESTERN UNIVERSITY**

A paper to be submitted to
the Journal of Travel Research

Shihlin Sung, Cathy H. C. Hsu

Abstract

Due to the rapidly increasing number of international students, it is critical to understand the travel behaviors of this significant market segment in the United States. The focus of this study was to identify travel behaviors of international students with various demographic characteristics. Findings indicated international students preferred touring and social activities when traveling. Automobile, hotel/motel, and fast food restaurants were the most often used mode of transportation, type of accommodation, and meal arrangement method, respectively.

Shihlin Sung will receive her M.S. degree from Iowa State University in December, 1994 (Ames, IA 50011, USA). **Cathy H. C. Hsu** is an Assistant Professor in the Department of Hotel, Restaurant, and Institution Management at Iowa State University (Ames, IA 50011, USA). Both authors' research interests lie in hospitality and tourism marketing.

Introduction

Tourism in the United States of America (U.S.) generates income and employment for millions of Americans. According to the U.S. Bureau of the Census (1993), the tourism industry is an affluent and growing market. Not only is the number of individuals that the tourism industry employs increasing each year, but the number of trips and the amount of money spent by U.S. travelers are increasing. However, as a result of changing demographics of the U.S. population, travel and tourism marketers face a highly competitive environment. In order to make significant contributions to the development of marketing strategies, studying travel behaviors of each market segment becomes increasingly important. Research on travel behaviors of various market segments can improve not only an organization's competitive position and better serve the needs of its customers (Weinstein, 1987), but also bring and create a much more aggressive approach to the marketplace.

Travel behaviors for various age groups of the travel market in the U.S. have been the focus of several studies. Mostly, those studies focused on American citizens. However, there is a fast growing segment of the U.S. population of which little is known. In the recent past, the number of international students in the U.S. has been increasing every year. According to the Institute of International Education's (1993) annual census in the 1991 - 1992 academic year, the number of international students in higher education on U.S. campuses increased 3.0% over the same period a year earlier, to 419,590. In 1992 - 1993 academic year, the number increased 4.5% over the previous year, to about

438,620. Because college students seem to have more time to travel during school recesses, such as Spring and Semester Breaks (Epperson, 1977), they may contribute a share to the growing U.S. tourism market. Additionally, international students are not allowed to work off-campus, and do not have their homes close by to visit. Also, international students may have realized that visiting various parts of the country could aid their understanding of the U.S. culture and appreciation of the American people. International students also are likely to travel to escape from their daily routine and academic-related pressures.

International students can be viewed as part of the youth market, although some of them are older, mature students. In the past, because researchers felt that youth travelers seldom use traditional tour services, and they tend to travel more independently, the youth market has received little attention (Vogt, 1976). Vogt (1976) named this segment of the market the "wandering youth" or "noninstitutionalized form of tourism" (p. 27). The wandering youth constitutes a specific segment of demand because young people tend to participate in cheaper forms of recreation and tourism, and they are eager to see the world and to experience something new.

It is important for travel marketers to understand how and where international students travel. Data on activity preferences, advance planning, and decision making can provide such information. Therefore, the focus of this project was to identify the travel behaviors of international students in the U.S. Their demographic characteristics' influence on travel behavior was also studied. Results of this research will inform travel-related service providers of the needs and preferences of this market, and more effectively

encourage international students to explore various parts of the U.S.

Purpose and Methodology

The purpose of this study was to investigate travel behaviors of international students traveling in the continental U.S. Specifically, the research attempted to determine: (1) their travel-related activities and travel patterns; (2) their demographic characteristics; and (3) relationships between demographics and other variables.

Research Instrument

A questionnaire was designed to collect information about travel behaviors of international students. Travel was defined as "the action and activities of people taking trips to a place or places outside of their home communities for any purpose except daily commuting to and from work" (McIntosh & Goeldner, 1990, p. 10).

The questions designed to measure travel-related activities were derived from Blazey's (1992) study. A total of 28 items were listed as travel-related activities. Respondents were asked the frequency with which they performed those activities during travel. Questions designed to measure travel patterns, such as transportation, accommodations, meals, and re-visiting decisions were also included based on literature review. All of the above questions were phrased to use a five-point Likert-type scale, with 5 = almost always, 4 = frequently, 3 = sometimes, 2 = seldom, and 1 = never. Demographic questions that examined gender, age, home country, years in the U.S.,

degree sought, marital status, live-in children, discretionary income, and sources of financial support also were included.

Copies of the questionnaire were reviewed by three researchers for content validity. A pilot test was conducted with 15 international students at a midwestern university. Based on results of the pilot test, revisions for wording and layout were made to improve comprehension.

Data Collection and Analysis

A list of international students was provided by one large midwestern state university's Office of International Students and Scholars. International students who had enrolled at the university for at least one year were selected as the population of the study. A simple random sampling method was used to select 600 from the 1,918 who met the criterion. The questionnaire, with a cover letter explaining purpose of the research, was mailed to selected individuals during Spring Semester of 1994. Three weeks after the initial mailing of the questionnaires, a follow-up letter with another copy of the questionnaire was mailed to all non-respondents.

A total of 278 questionnaires were returned, for a 46.3% response rate. Three individuals did not complete the questionnaire. Five (1.8%) respondents indicated they never traveled in the continental U.S. Therefore, 270 questionnaires were analyzed using the Statistical Package for the Social Sciences (SPSS Inc., 1990). Descriptive statistics were calculated for all survey items. Factor analysis was conducted to group variables together in travel-related activities. Significant differences between respondents with

different demographic characteristics were determined using t-tests.

Results

Characteristics of Respondents

Results of descriptive analyses of the sample are shown in Table 1. About two-thirds of respondents were male (66.7%), with an average age of 27 years. Taiwan (17.4%) was the leading home country of respondents, followed by Indonesia (10.0%) and Malaysia (10.0%). Respondents had been in the U.S. for an average of three years and nine months, with bachelor's degree (42.2%) as the most often sought degree.

Close to two-thirds of the respondents were single (65.6%), none were divorced or widowed. The majority of respondents (82.9%) did not have any children living with them. In terms of discretionary income, over 50% of respondents had \$5,000 or less to spend annually after paying tuition, school-related expenses, and housing. On the other hand, 20% of them had more than \$9,000 to spend. The two major sources of financial support were assistantship/scholarship (68.5%) and parents/family (55.4%).

Table 1 Here

Factor Analysis

A factor analysis was performed on the 28 travel-related activities to determine possible underlying factors. Table 2 summarizes the findings produced by principal component factor analysis and subsequent varimax rotations, as well as reliability coefficients of measurement. Eight factors with an eigenvalue of one or greater that resulted from the analysis explained 59.0% of the variance in the frequency scores.

The eight factors were named *action*, *event*, *touring*, *sport*, *recreation*, *leisure*, *zoo*, and *social*. The overall coefficient alpha value of 0.84 indicated satisfactory reliability for the activity section of the research instrument. Coefficient alpha value for each factor varied from a high of 0.722 for *event* to a low of 0.268 for *social*.

Table 2 Here

General Travel Behaviors

Tables 3 and 4 show respondents' general travel behaviors, such as travel-related activities performed, transportation, accommodation, and meal arrangement. As shown in Table 3, respondents were more likely to have *touring* (mean = 3.32) and *social* (mean = 3.31) experiences while traveling. For individual activities, sightseeing (mean = 4.33), touring a city (mean = 3.67), shopping (mean = 3.41), visiting friends/relatives (mean = 3.23), and visiting a museum (mean = 3.03) were the activities most often cited.

Table 3 Here

In terms of travel patterns, automobile (mean = 4.42) was *frequently* and plane (mean = 3.29) was *sometimes* used as modes of transportation; and train (mean = 1.30) was *never* used (Table 4). Hotel/motel (mean = 3.93) was a popular choice for accommodation when respondents traveled. However, respondents did stay with friends/relatives *sometimes* (mean = 3.36). Fast food restaurants (mean = 4.01) were the most popular places for meals, followed by family style restaurants (mean = 3.25), convenience stores (mean = 2.98), self prepared (mean = 2.68), formal restaurants (mean = 2.41), and supermarket deli (mean = 2.39). Respondents also identified that they *sometimes* re-visited a travel destination (mean = 2.75).

Table 4 Here

Differences Between Demographic Groups

Tables 5 through 8 compare travel-related activities and travel patterns of international students with different demographic characteristics. Only t-values significant at the 0.05, 0.01, and 0.001 level were presented in the tables. Gender, of course, was divided into male and female groups. Degree sought and marital status were divided into undergraduate and graduate student groups, and single and married groups, respectively.

In many cases, demographic categories were collapsed and percentages combined at approximately the 50% cut-off in order to draw a general picture for each group, such as age, years in the U.S., and discretionary income. Respondents' travel behaviors were also compared between those receiving all of their financial support from assistantship/scholarship and those from parents/family, which were subgroups of total respondents.

Gender. As shown in Table 5, male respondents were more likely to engage in dynamic activities, such as attending a sports event, skiing, fishing, bicycling, and hunting in the *sport*, *action*, and *leisure* categories; and also more likely to re-visit a travel destination. Females were more likely to visit a museum, use plane as a mode of transportation, and have self prepared meals while traveling.

Age. Respondents in the younger age group (≤ 26 years) were more likely to engage in *social*, *action*, and *sport* activities, such as shopping, going to a night club, skiing, gambling, and hunting; and older respondents (≥ 27 years) were more likely to visit a museum, zoo, and attend a convention. Also, respondents in the younger age group were more likely to use plane as a mode of transportation; patronize fast food restaurants, family style restaurants, and convenience stores while traveling; and re-visit a travel destination more often.

Table 5 Here

Years in the U.S. Respondents who had been in the U.S. for a longer time (≥ 4 years) were more likely to visit a zoo, attend a convention, and engage in boating, canoeing, or sailing (Table 6). Respondents who had been in the U.S. for a shorter period of time (≤ 3 years) were more likely to go shopping, and eat in fast food restaurants, or use convenience stores while traveling. This trend may be explained by the observation that in the first couple of years in a new culture or country, students seem to be more comfortable engaging in activities that do not require a great deal of communication.

Degree Sought. Undergraduate students were more interested in touring a city, shopping, visiting a theme or amusement park, going to a night club, skiing, and gambling. Graduate students were more likely to visit friends/relatives, a museum, a zoo, or to attend a convention. It is also interesting to note that undergraduate students were more likely to dine at all types of restaurants, and graduate students were more likely to prepare their own meals while traveling. Also, undergraduate students re-visited a travel destination more often than graduate students.

Table 6 Here

Marital Status. Single students were more likely to go shopping, skiing, and to a night club, whereas married students were more likely to participate in family-oriented activities such as visiting a park, zoo, and fishing (Table 7). Married students were also

less likely to fly and more likely to prepare meals for themselves to save travel expenses. Single students may have more discretionary income because of the lack of family responsibilities; therefore, they were more likely to dine in family style or formal restaurants while traveling and re-visit a travel destination more often.

Discretionary Income. Respondents having more money to spend annually after paying tuition, school-related expenses, and housing (\geq \$5,001) were more likely to attend a convention or go on a cruise which is usually more expensive than other activities. Respondents having less discretionary money (\leq \$5,000) more frequently selected transportation such as bus and truck/van/recreational vehicle, which may be used as lodging substitutes, to save money.

Table 7 Here

Financial Support. Respondents having financial support totally from assistantship/scholarship were more likely to engage in less costly activities, such as visiting friend/relatives, museum, zoo, and attending a convention (Table 8). Respondents having financial support totally from parents/family were more likely to go shopping, use hotel/motel as accommodations, and have meals in fast food, family style, and formal restaurants, as well as patronize convenience stores. It seems that students with financial support from parents/family spent money more freely in a number of areas, such as food, lodging, and travel-related activities. Students receiving their financial support from

assistantship/scholarship may have recognized the effort involved in earning the money; therefore, they tend to budget their money more carefully.

Table 8 Here

Conclusions

This study on behaviors of international student travelers provides pertinent consumer information and may suggest strategic implications for tourism planners or managers. Generally, international students were more likely to have *touring* (sightseeing, touring a city, visiting a museum) and *social* (shopping, visiting friends/relatives) experiences. Therefore, travel marketers could propose or emphasize specific destinations having good sightseeing opportunities; nice shopping places; and a variety of scientific, historical, or artistic museums to attract potential travelers. Also, advertising and promotional programs could highlight the importance of touring and social experiences.

Packages with different activities could be designed with students' demographic characteristics and interests in mind. Automobile, hotel/motel, and fast food restaurants were most often used by international student travelers. Destination and travel service marketers may want to provide detailed road maps, instructions on road conditions, and how to find fast service dining or lodging places because international student travelers may not be familiar with the various destinations in the U.S.

Results of t-tests indicated: (1) male international students were more likely to engage in *sport*, *action*, and *leisure* activities than females; (2) younger students were more likely to engage in *social*, *action*, and *sport* activities than older students; (3) undergraduate students were more likely to dine at all types of restaurants than graduate students; and (4) married students were more likely to participate in family-oriented activities than single students. Results indicated international students' travel behaviors were of great diversity.

This research was subject to several limitations. First, data were provided based on memory of past events. Recall measurement must contend with the problems of forgetting and general memory distortion. Second, there was a bias toward the number of respondents from Asian countries. Results of the study may not generalize able to the entire international student population. Third, data collection from only one university may not be representative of international students in other parts of the U.S. Tourism planners or managers are recommended to further study this population with a larger sample size to better define this market and subsegments with this market. Also, study with a local sample is recommended for travel service providers to customize their strategies.

Table 1. Demographic characteristics of respondents ^a

Characteristics	Percentage	Characteristics	Percentage
<u>Gender</u>		<u>Marital Status</u>	
Male	66.7	Single/Never married	65.6
Female	33.3	Married	34.4
<u>Age in Years</u>		<u>Live-in Children</u>	
Mean: 27.34		None	82.9
Range: 18 - 45		One	9.3
		Two	7.1
		Three or more	.7
<u>Home country</u>		<u>Discretionary Income</u>	
Taiwan	17.4	\$3,000 or less	27.0
Indonesia	10.0	\$3,001-\$4,000	15.4
Malaysia	10.0	\$4,001-\$5,000	10.8
India	8.5	\$5,001-\$6,000	8.5
China	8.5	\$6,001-\$7,000	7.7
Hong Kong	6.3	\$7,001-\$8,000	6.6
Korea	5.9	\$8,001-\$9,000	3.9
Japan	2.6	\$9,001-\$10,000	10.0
Pakistan	2.6	More than \$10,000	10.0
Philippines	2.6		
Singapore	1.9		
Vietnam	1.9		
Others	21.8		
<u>Years in the U.S.</u>		<u>Sources of Financial Support</u> ^b	
Mean: 3.78		Assistantship/Scholarship	68.5
Range: 1 - 16		Parents/Family	55.4
		Self savings	27.3
		Others	10.8
<u>Degree Sought</u>			
Bachelor's degree	42.2		
Master's degree	18.9		
Doctorate degree	38.9		

^a Total respondents = 270.

^b Multiple responses.

Table 2. Factor analysis results of activities performed while traveling

Factors	Activity Attributes	Factor ^a Loading	Eigenvalues	Variance Explained	Coefficient Alpha
Action	Going to a night club ✓	.474	5.985	21.4%	.721
	Visiting a theme or amusement park ✓	.626			
	Visiting a resort	.390			
	Gambling	.515			
	Going on a package tour ✓	.570			
	Going on a cruise ✓	.665			
	Skiing	.439			
	Going to a beach ✓	.528			
Event	Attending a cultural event	.755	2.371	8.5%	.722
	Attending a convention ✓	.447			
	Attending a festival	.751			
	Attending an artistic event	.686			
Touring	Sightseeing	.705	1.876	6.7%	.698
	Touring a city ✓	.697			
	Visiting a museum ✓	.530			
	Visiting a national park ✓	.518			
	Visiting a historical site ✓	.551			
Sport	Hunting ✓	.476	1.731	6.2%	.688
	Golfing ✓	.752			
	Attending a sports event ✓	.738			
	Bicycling ✓	.666			
Recreation	Hiking ✓	.749	1.342	4.8%	.639
	Boating, canoeing, or sailing ✓ (sailing)	.572			
Leisure	Visiting a state/county/city park ✓	.499	1.177	4.2%	.430
	Fishing	.793			
Zoo	Visiting a zoo ✓	.722	1.042	3.7%	-- ^b
Social	Shopping	.570	1.006	3.6%	.268
	Visiting friends/relatives ✓	.738			
Overall				59.0%	.840

^a Only factor loadings of .39 or greater reported.

^b Has only one item, therefore, can not be processed.

Table 3. Activities performed while traveling

Factors/Activities	Mean	Factors/Activities	Mean
<u>Action</u>	<u>2.06</u> ^a	<u>Sport</u>	<u>1.36</u>
Visiting a theme or amusement park	2.91	Attending a sports event	1.70
Going to a beach	2.76	Bicycling	1.46
Going to a resort	2.39	Golfing	1.21
Going to a night club	2.07	Hunting	1.08
Skiing	1.69		
Gambling	1.67	<u>Recreation</u>	<u>1.78</u>
Going on a package tour	1.59	Hiking	1.79
Going on a cruise	1.37	Boating, canoeing, or sailing	1.77
<u>Event</u>	<u>2.31</u>	<u>Leisure</u>	<u>2.07</u>
Attending a cultural event	2.57	Visiting a state/county/city park	2.62
Attending a festival	2.25	Fishing	1.52
Attending a convention	2.22		
Attending an artistic event	2.19	<u>Zoo</u>	<u>2.29</u>
		Visiting a zoo	2.29
<u>Touring</u>	<u>3.32</u>	<u>Social</u>	<u>3.31</u>
Sightseeing	4.33	Shopping	3.41
Touring a city	3.67	Visiting friends/relatives	3.23
Visiting a museum	3.03		
Visiting a historical site	2.81		
Visiting a national park	2.74		

^a Scale: 5 = almost always, 4 = frequently, 3 = sometimes, 2 = seldom, 1 = never.

Table 4. Travel patterns of respondents

Characteristics	Mean	Characteristics	Mean
<u>Transportation</u>		<u>Meals</u>	
Automobile	4.42 ^a	Fast food restaurants	4.01
Plane	3.29	Family style restaurants	3.25
Bus	1.91	Convenience stores	2.98
Truck/Van/RV	1.61	Self prepared	2.68
Train	1.30	Formal restaurants	2.41
		Supermarket deli	2.39
<u>Accommodations</u>		<u>Re-visiting a Travel Destination</u>	
Hotel/Motel	3.93		2.75
Home of friends/relatives	3.36		
Campground/Trailer park	1.56		

^a Scale: 5 = almost always, 4 = frequently, 3 = sometimes, 2 = seldom, 1 = never.

Table 5. Significantly different mean scores of variables by gender and age

Variables	Group 1		Group 2		t-value
	n	Mean	n	Mean	
	<u>Male</u>		<u>Female</u>		
<u>Activities</u>					
Visiting a museum	179	2.87	88	3.34	-3.17**
Attending a sports event	180	1.82	90	1.46	3.30***
Skiing	180	1.77	90	1.51	2.17*
Fishing	179	1.61	89	1.33	2.38*
Bicycling	180	1.53	90	1.32	1.97*
Hunting	180	1.11	90	1.02	2.67*
<u>Transportation</u>					
Plane	179	3.15	89	3.58	-2.86**
<u>Meals</u>					
Self prepared	174	2.57	89	2.91	-2.21*
<u>Re-visiting a Travel Destination</u>	176	2.84	87	2.59	2.21*
	<u>≤ 26 years</u>		<u>≥ 27 years</u>		
<u>Activities</u>					
Shopping	134	3.58	134	3.25	2.66**
Visiting a museum	132	2.77	134	3.28	-3.62***
Visiting a zoo	134	2.00	135	2.58	-4.38***
Attending a convention	133	1.91	135	2.51	-4.53***
Going to a night club	134	2.33	135	1.82	2.27**
Skiing	134	1.84	135	1.53	2.62**
Gambling	134	1.80	135	1.56	2.27*
Hunting	134	1.12	135	1.04	2.05*
<u>Transportation</u>					
Plane	133	3.47	134	3.10	2.60**
<u>Meals</u>					
Fast food restaurants	134	4.15	135	3.86	2.73**
Family style restaurants	134	3.49	134	3.01	3.69***
Convenience stores	132	3.13	133	2.82	2.25*
<u>Re-visiting a Travel Destination</u>	130	2.90	132	2.61	2.70**

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

Table 6. Significantly different mean scores of variables by years in the U.S. and degree sought

Variables	<u>Group 1</u>		<u>Group 2</u>		t-value
	n	Mean	n	Mean	
	<u>≤ 3 years</u>		<u>≥ 4 years</u>		
<u>Activities</u>					
Shopping	164	3.55	104	3.19	2.75**
Visiting a zoo	165	2.16	104	2.51	-2.52*
Attending a convention	164	2.06	104	2.47	-2.95**
Boating, canoeing, or sailing	163	1.68	104	1.92	-2.18*
<u>Meals</u>					
Fast food restaurants	165	4.10	104	3.87	2.16*
Convenience stores	163	3.12	102	2.77	2.48*
	<u>Undergraduate</u>		<u>Graduate</u>		
<u>Activities</u>					
Touring a city	114	3.82	155	3.56	2.02*
Shopping	114	3.68	155	3.21	3.67***
Visiting friends/relatives	114	3.04	156	3.37	-2.40*
Visiting a museum	113	2.77	154	3.21	-3.15**
Visiting a theme or amusement park	114	3.10	155	2.78	2.10*
Visiting a zoo	114	2.02	156	2.49	-3.56***
Attending a convention	113	1.83	156	2.49	-5.12***
Going to a night club	114	2.32	156	1.89	2.82**
Skiing	114	1.83	156	1.58	2.09*
Gambling	114	1.87	156	1.53	3.15***
<u>Transportation</u>					
Automobile	114	4.54	156	4.34	1.99*
<u>Meals</u>					
Fast food restaurants	114	4.26	156	3.82	4.19***
Family style restaurants	114	3.61	155	2.99	4.73***
Convenience stores	113	3.32	153	2.73	4.32***
Self prepared	111	2.47	152	2.85	-2.53*
Formal restaurants	114	2.61	155	2.27	2.38*
Supermarket deli	112	2.63	151	2.21	3.14**
<u>Re-visiting a Travel Destination</u>	110	2.93	153	2.63	2.80**

* p ≤ .05

** p ≤ .01

*** p ≤ .001

Table 7. Significantly different mean scores of variables by marital status and discretionary income

Variables	Group 1		Group 2		t-value
	n	Mean	n	Mean	
	<u>Single</u>		<u>Married</u>		
<u>Activities</u>					
Shopping	176	3.55	93	3.15	2.99**
Visiting a national park	177	2.62	92	2.97	-2.12*
Visiting a state/country/city park	177	2.50	93	2.84	-2.57*
Visiting a zoo	177	2.06	93	2.73	-4.92***
Attending a convention	176	2.10	93	2.44	-2.41*
Going to a night club	177	2.35	93	1.54	6.07***
Skiing	177	1.81	93	1.44	3.22**
Fishing	176	1.41	92	1.72	-2.35*
<u>Transportation</u>					
Plane	176	3.48	92	2.94	3.60***
<u>Meals</u>					
Family style restaurants	177	3.48	92	2.81	4.86***
Self prepared	170	2.47	93	3.07	-4.04***
Formal restaurants	177	2.63	92	2.00	4.45***
<u>Re-visiting a Travel Destination</u>	172	2.88	91	2.51	3.43***
		<u>≤ \$5,000</u>		<u>≥ \$5,001</u>	
<u>Activities</u>					
Attending a convention	137	2.01	121	2.42	-3.00**
Going on a cruise	137	1.26	121	1.49	-2.68**
<u>Transportation</u>					
Bus	137	2.05	120	1.79	2.02*
Truck/Van/RV	137	1.74	119	1.46	2.32*

* $p \leq .05$

** $p \leq .01$

*** $p \leq .001$

Table 8. Significantly different mean scores of variables by financial support

Variables	Assistantship/ Scholarship		Parents/ Family		t-value
	n	Mean	n	Mean	
<u>Activities</u>					
Shopping	78	3.15	49	3.82	-3.47***
Visiting friends/relatives	78	3.37	49	2.98	2.00*
Visiting a museum	76	3.33	48	2.83	2.29*
Visiting a zoo	78	2.49	49	1.71	4.04***
Attending a convention	78	2.63	49	1.63	5.70***
<u>Transportation</u>					
Automobile	78	4.27	49	4.61	-2.71**
<u>Accommodations</u>					
Hotel/Motel	78	3.69	49	4.20	-2.73**
<u>Meals</u>					
Fast food restaurants	78	3.79	49	4.33	-3.61***
Family style restaurants	77	3.04	49	3.80	-4.30***
Convenience stores	76	2.74	49	3.16	-2.08*
Formal restaurants	77	2.32	49	2.80	-2.14*
<u>Re-visiting a Travel Destination</u>	77	2.62	47	3.09	-3.01**

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

References

- Blazey, M. A. (1992). Travel and retirement status. *Annals of Tourism Research*, 19, 771-783.
- Epperson, A. F. (1977). *Private and Commercial Recreation*. New York: John Wiley & Sons, Inc.
- Institute of International Education. (1993). *Open Doors 1992/1993*. New York: Author.
- McIntosh, R. W., & Goeldner, C. R. (1990). *Tourism Principles, Practices, Philosophies* (6th ed.). New York: John Wiley & Sons, Inc.
- SPSS Inc. (1990). *SPSS Reference Guide*. Chicago: Author.
- U.S. Bureau of the Census. (1993). *Statistical Abstract of the United States: 1993* (113th ed.). Washington, DC: Author.
- Vogt, J. W. (1976). Wandering: youth and travel behavior. *Annals of Tourism Research*, 4, 25-41.
- Weinstein, A. (1987). *Market Segmentation*. Chicago: Probus Publishing Company.

**INTERNATIONAL STUDENTS' TRAVEL CHARACTERISTICS:
AN EXPLORATORY STUDY**

A paper to be submitted to
the Journal of Travel and Tourism Marketing

Shihlin Sung, Cathy H. C. Hsu

Abstract

The focus of this study was to identify travel characteristics of international students in general and the longest trip taken in the last 12 months, along with various demographic characteristics. Information sources and trip destinations among international students also were studied. Results indicated the majority of international students traveled during their study in the U.S., and they planned their travels in advance. Maps, family/friends, and past experiences were the most often used travel information sources. This study was exploratory in nature. Findings of the study may stimulate further investigation of this fast-growing market segment.

Keywords: consumer behavior, international student, travel behavior, travel pattern, youth travel market

Shihlin Sung will receive her M.S. degree from Iowa State University in December, 1994 (Ames, IA 50011, USA). **Cathy H. C. Hsu** is an Assistant Professor in the Department of Hotel, Restaurant, and Institution Management at Iowa State University (Ames, IA 50011, USA). Both authors' research interests lie in hospitality and tourism marketing.

Introduction

The youth travel market had received little attention because researchers felt that youth or young adult travelers seldom use traditional tour services, and they tend to travel more independently (Vogt, 1976). However, age segmentation research indicated that the maximum participation rate in tourism occurs in the age bracket of 18-45 (Mieczkowski, 1990). Researchers also identified six major barriers that inhibit travel: expense, lack of time, health limitations, presence of young children, lack of interest, and fear and safety (Epperson, 1977; Lansing & Blood, 1964; McIntosh & Goeldner, 1990). Youths in their college years can find travel time between terms and enjoy the best years of health (Vogt, 1976). They are single or newly married with no children. Therefore, youths are well-suited to travel.

International students, a fast-growing segment of the U.S. population, can be viewed as part of the youth market, although some of them are older, mature students. In the recent past, the number of international students in the U.S. has been increasing every year. According to the Institute of International Education's (1993) annual census in the 1991 - 1992 academic year, the number of international students in higher education on U.S. campuses increased 3.0% over the same period the previous year, to about 419,590. In 1992 - 1993 academic year, the number increased 4.5% over a year earlier, to about 438,620.

Because college students seem to have more time to travel during school recesses, such as Spring and Semester Breaks (Epperson, 1977), they may contribute a share to the

growing U.S. tourism market. Additionally, international students cannot work off-campus, and they do not have their homes close by to visit. Also, international students may have realized that visiting various parts of the country could aid their understanding of the U.S. culture and appreciation of the American people.

It is important for travel marketers to understand travel characteristics of international students which have been and will be a significant segment in the travel market. Therefore, the purpose of this study was to investigate travel characteristics of international students traveling in the continental U.S. Specifically, the research attempted to determine: (1) their information sources and trip destination selection; (2) their travel patterns in general and the longest trip taken in the last 12 months; (3) their demographic characteristics; and (4) relationships between demographics and other variables.

Methodology

Research Instrument

A questionnaire was designed to collect information about travel characteristics of international students. Travel was defined as "the action and activities of people taking trips to a place or places outside of their home communities for any purpose except daily commuting to and from work" (McIntosh & Goeldner, 1990, p. 10).

Questions designed to measure travel information sources were derived from Blazey's (1992) and Capella and Greco's (1987) studies. A total of 15 items were chosen as travel information sources. Respondents were asked to indicate the frequency of using

those information sources both in selecting a travel destination and after a destination had been selected. Both questions were phrased to use a five-point Likert-type scale, with 5 = almost always, 4 = frequently, 3 = sometimes, 2 = seldom, and 1 = never.

Respondents also were asked to check all the travel destinations they had visited. Destinations listed included 20 major metropolitan areas, 10 national parks, and 6 theme parks. The questions for general travel patterns examined respondents' frequency of one-day and overnight travel, party size, and advanced planning. The questions about the longest trip taken in the continental U.S. in the last 12 months included length of travel, party size, advanced planning, modes of transportation, types of accommodation, total cost per person, and spending on accommodations and in meals. Demographic questions that examined gender, age, home country, years in the U.S., degree sought, marital status, live-in children, discretionary income, and sources of financial support also were included.

Copies of the questionnaire were reviewed by three researchers for content validity. A pilot test was conducted with 15 international students at a midwestern university. Based on results of the pilot test, revisions for wording and layout were made to improve comprehension.

Data Collection and Analysis

A list of international students was provided by one large midwestern state university's Office of International Students and Scholars. International students who had enrolled at the university for at least one year were selected as the population of the

study. A simple random sampling method was used to select 600 from the 1,918 who met the criterion. The questionnaire, with a cover letter explaining purpose of the research, was mailed to selected individuals during Spring Semester of 1994. Three weeks after the initial mailing of the questionnaires, a follow-up letter with another copy of the questionnaire was mailed to all non-respondents. A total of 278 questionnaires were returned, for a 46.3% response rate. Three individuals did not complete the questionnaire. Five (1.8%) respondents indicated they never traveled in the continental U.S. Therefore, 270 questionnaires were analyzed using the Statistical Package for the Social Sciences (SPSS Inc., 1990). Descriptive statistics were calculated for all survey items. Pearson correlations were used to identify significant correlations between travel information sources used in selecting a travel destination and after a destination had been selected. Significant differences between respondents with different demographic characteristics were determined using t-tests and chi-square analyses.

Results

Characteristics of Respondents

Results of descriptive analyses of the sample are shown in Table 1. About two-thirds of respondents were male (66.7%), with an average age of 27 years. Taiwan (17.4%) was the leading home country of respondents, followed by Indonesia (10.0%) and Malaysia (10.0%). Respondents had been in the U.S. for an average of three years and eight months, with bachelor's degree (42.2%) as the most popular degree sought.

Close to two-thirds of the respondents were single (65.6%), none were divorced or widowed. The majority of respondents (82.9%) did not have any children living with them. In terms of financial status, over 50% of respondents had \$5,000 or less to spend annually after paying tuition, school-related expenses, and housing. On the other hand, twenty percent of them had more than \$9,000 to spend. The two major sources of financial support were assistantship/scholarship (68.5%) and parents/family (55.4%).

Table 1 Here

Sources of Information

The respondents *frequently* received information from maps and family/friends, and *sometimes* from past experience, travel clubs, pamphlets/brochures, and visitor welcome centers both in selecting a travel destination and after a tourism destination had been selected (Table 2). However, they *never* used travel wholesalers and Chamber of Commerce as sources of information for both instances. Maps were also found to be the most frequently used source of information in Blazey's study (1992). It was not unexpected that maps were often used due to most of the trips were taken using automobiles.

Table 2 Here

Pearson correlations were used to identify the strength and significance of relationships between before and after a tourism destination had been selected for using each information source. According to Davis (1971), if correlation coefficients were 0.70 or higher, 0.50 to 0.69, 0.30 to 0.49, 0.10 to 0.29, or lower than 0.10, it indicated a very strong, substantially strong, moderate, low, or negligible relationship, respectively. Six out of 15 information sources, having correlation coefficients ranging from 0.73 to 0.80, had very strong relationship. Correlation coefficients of eight items ranged from 0.55 to 0.67 showing substantially strong relationships. Maps had the lowest correlation coefficient (0.39), indicating moderate relationship. Because no item was lower than 0.30, this suggested that similar sources of information were used both during the selection of a travel destination and after a destination had been selected.

Travel Destinations

Of the 20 largest cities listed on the questionnaire, Chicago (85.2%) and Minneapolis (79.3%) were the most popular destinations (Table 3). This may be due to the geographic location of the university. National parks seemed to be less popular than theme parks. Close to half (48.7%) of the respondents had never been to a national park, and over one-third (35.4%) of the respondents had never been to a theme park.

Disneyland/Disney World (48.3%) and Universal Studios (40.7%) were the two most popular theme parks.

Table 3 Here

General Travel Patterns

Table 4 presents the general travel patterns of responding international students. Respondents were likely to take one- to three-night (43.6%) or four- to six- night (32.3%) short trips, about twice (31.8%) a year. And, the average number of one-day trips per year was seven. The average party size was three people. The majority of respondents (92.9%) had taken 2- to 3-day trips, with an average of 12 days advanced planning. The majority of respondents (93.6%) also had taken trips lasting longer than 3 days, with 26 days as the average advanced planning time.

Table 4 Here

Longest Trip in the Last 12 Months

For the longest trip in the continental U.S. in the last 12 months, respondents stayed away from home for an average of 10 nights, had an average party size of four people, and planned the trip 30 days in advance (Table 5). The majority of respondents used an automobile (84.4%) as the principal mode of transportation, and stayed at a hotel/motel (71.5%) or the home of friends/relatives (58.1%).

Table 5 Here

The total cost per person for this trip varied from \$100 or less to more than \$600. Close to half of the respondents (49.0%) spent \$20 or less on lodging expenses per person per night. This may be influenced by the large number of respondents staying with friends and relatives, and the fact that students are likely to share rooms with friends while traveling to reduce costs. More than three-quarters of respondents (75.4%) spent \$20 or less on food per day on this trip.

Differences Between Demographic Groups

Tables 6 through 10 show the summary of significant differences between various demographic groups on travel characteristics. Only t-values or chi-square significant at the 0.05, 0.01, and 0.001 levels were presented in the tables. Gender, of course, was divided into male and female groups. Degree sought and marital status were divided into undergraduate and graduate student groups and single and married groups, respectively. In many cases, demographic categories, such as age, years in the U.S., and discretionary income, were collapsed and percentages combined at approximately the 50% cut-off in order to draw a general picture for each group. Live-in children were divided into married couples with and without children living together which were subgroups of total respondents. Respondents' travel characteristics also were compared between those receiving all of their financial support from assistantship/scholarship and those from

parents/family, which were another subgroups of total respondents.

In General. It is particularly interesting to note that travel party size is influenced by age, years in the U.S., degree sought, marital status, live-in children, discretionary income, and financial support (Table 6). As respondents got older, were in the U.S. longer, sought a higher degree, got married, had no children living together, possessed a higher discretionary income, and received financial support totally from assistantship/scholarship, the travel party size was more likely to be smaller. It is probable that once students were older, more mature, and more familiar with the American culture, they became more comfortable in traveling in smaller parties. Also, having more discretionary income may mean that they could afford to travel in smaller groups. Students traveling in large groups usually do so to share travel expenses. Married couples tend to travel by themselves or with children, if they have any, instead of with friends or other people; therefore, party size is typically smaller.

Table 6 Here

As respondents got older, were in the U.S. longer, sought a higher degree, and received financial support totally from assistantship/scholarship, the length of planning a 2- to 3-day trip was more likely to be longer. This may be due to the fact that students had become more knowledgeable about how to plan their trips and knew the importance of advanced planning once they were older, better educated, and more familiar with

traveling in U.S. In terms of the number of overnight trips taken by international students, significant differences were found by gender, age, degree sought, and marital status (Table 7). Older, married, female respondents pursuing an advanced degree tended to take fewer overnight trips than young, single, male undergraduate respondents. Young and single individuals may have relatively few professional and family obligations, therefore, had a higher propensity for participation in travel.

Table 7 Here

Sources of Information. Respondents in the younger age group were more likely to use past experience as a source of information both before and after a travel destination had been selected (Table 8). As indicated in Table 7, younger respondents traveled more often; therefore, they may have had more travel experience. Respondents, not having been in the U.S. as long, were more often to follow the advice of family/friends in selecting travel destinations; whereas respondents who had been in the U.S. longer were more likely to use the state tourism office and Chamber of Commerce as sources of information. When people are not familiar with a service or product, they often try to reduce the risk through seeking information from social or personal sources (Loudon & Della Bitta, 1979). They may perceive that family/friends' advice is where they can get an honest opinion. Respondents who have been in the U.S. longer may be more aware of a variety of informational resources. Undergraduate students also were likely to use more

information sources, such as past experience, pamphlets/brochures, billboards/signs, travel agents, and travel wholesalers, than graduate students. This may be due to the fact that undergraduate students traveled more often.

Table 8 Here

Respondents having less money to spend annually after paying tuition, school-related expenses, and housing more often followed the advice of family/friends in selecting travel destinations. They may perceive that is where they can get an honest and reliable estimate on travel expenses. Respondents having financial support totally from parents/family used a number of information sources more frequently in exploring a travel destination. This group may realize that they can afford to visit various travel destinations; therefore, they were more likely to seek information from a variety of sources.

The Longest Trip in the Last 12 Months. Travel party size also was found to be influenced by age and degree sought for the longest trip in the last 12 months (Table 9). Younger undergraduate respondents tended to travel in larger groups. Undergraduate international students also stayed away from home longer than graduate international students while traveling. This may be due to the fact that graduate students with assistantships may not be able to get away too long. Married respondents tend to spend less on travel than their single counterparts (Table 10). Due to family responsibilities or

obligations, they may have to save money for family expenditures. Respondents with less discretionary income tended to use less expensive forms of accommodation while traveling than the group with more discretionary income.

Tables 9 & 10 Here

Conclusions

The majority of respondents traveled during their study in the U.S., and they planned their travels in advance. International students planned their 2- to 3-day trips about 12 days in advance, and trips lasting longer than 3 days were planned 26 days in advance. Older students who had been in the U.S. longer tended to plan their travel further in advance. Undergraduate students tended to travel more often than graduate students. Market providers are recommended to start promoting their services at least 2 weeks to one month before Spring and Semester Breaks. Undergraduate students seem to be the prime target market.

Results indicated few respondents had visited national parks. National parks may want to increase awareness among international students about the natural beauties of the U.S. and encourage them to visit the "real" America. Future studies could be conducted to identify the reasons for the low visitation rate to national parks among international students.

Maps, family/friends, and past experiences were the most often used travel information sources. Travel marketers could explore the process of using advertisements and feature articles in pamphlets/brochures and display in travel clubs and visitor welcome centers as ways of communicating with international student travelers. Because of the importance of social information sources, distributing information to opinion leaders may be an effective way of reaching the general international student population. The design of brochures should be easy to read, yet provide enough information to help them plan their itineraries. The information should be easily accessible, and the process of requesting information should avoid lengthy and complicated oral or written communication.

Due to the limitation of small and regional samples, further studies are necessary to accurately describe travel characteristics of international students. Future research with a larger sample size could also help divide the international student market into subsegments, so appropriate travel services and products could be designed to better meet the needs of international students with different characteristics.

Table 1. Demographic characteristics of respondents ^a

Characteristics	Percentage	Characteristics	Percentage
<u>Gender</u>		<u>Marital Status</u>	
Male	66.7	Single/Never married	65.6
Female	33.3	Married	34.4
<u>Age in Years</u>		<u>Live-in Children</u>	
Mean: 27.34		None	82.9
Range: 18 - 45		One	9.3
		Two	7.1
		Three or more	.7
<u>Home Country</u>		<u>Discretionary Income</u>	
Taiwan	17.4	\$3,000 or less	27.0
Indonesia	10.0	\$3,001-\$4,000	15.4
Malaysia	10.0	\$4,001-\$5,000	10.8
India	8.5	\$5,001-\$6,000	8.5
China	8.5	\$6,001-\$7,000	7.7
Hong Kong	6.3	\$7,001-\$8,000	6.6
Korea	5.9	\$8,001-\$9,000	3.9
Japan	2.6	\$9,001-\$10,000	10.0
Pakistan	2.6	More than \$10,000	10.0
Philippines	2.6		
Singapore	1.9		
Vietnam	1.9		
Others	21.8		
<u>Years in the U.S.</u>		<u>Sources of Financial Support</u> ^b	
Mean: 3.78		Assistantship/Scholarship	68.5
Range: 1 - 16		Parents/Family	55.4
		Self savings	27.3
		Others	10.8
<u>Degree Sought</u>			
Bachelor's degree	42.2		
Master's degree	18.9		
Doctorate degree	38.9		

^a Total respondents = 270.

^b Multiple responses.

Table 2. Travel information sources

Sources of Information	<u>Before</u> ^a Mean	<u>After</u> ^b Mean	Correlation Coefficients
Maps	4.25 ^c	4.60	0.39***
Family/Friends	3.72	3.57	0.66***
Past experience	3.28	3.25	0.67***
Travel clubs	2.99	3.01	0.80***
Pamphlets/Brochures	2.79	2.65	0.66***
Visitor welcome centers	2.53	2.53	0.73***
Magazines/Newspapers	2.43	2.29	0.55***
Billboards/Signs	2.31	2.34	0.62***
Travel agents	2.06	1.77	0.66***
Television/Radio	2.06	1.96	0.61***
Convention/Visitor bureau	2.03	1.91	0.74***
State tourism office	1.87	1.84	0.79***
Computer network	1.53	1.41	0.73***
Chamber of Commerce	1.39	1.40	0.67***
Travel wholesalers	1.34	1.29	0.75***

^a Sources of information used in selecting a travel destination.

^b Sources of information used after a destination had been selected.

^c Scale: 5 = almost always, 4 = frequently, 3 = sometimes, 2 = seldom, 1 = never.

*** $p \leq .001$

Table 3. Destination selection of respondents

Location	Percentage	Average Length of Stay (days)	Location	Percentage
<u>Metropolitan areas</u>			<u>National Parks</u>	
Chicago	85.2	4.5	Grand Canyon	26.2
Minneapolis	79.3	3.1	Yellowstone	20.2
New York	47.8	4.5	Rocky Mountain	16.0
Los Angeles	44.8	5.7	Yosemite	14.1
San Francisco	40.0	4.1	Grand Teton	10.6
Washington D.C.	36.7	3.8	Zion	7.2
St. Louis	33.3	2.6	Redwood	4.6
Boston	27.4	4.4	Great Smoky Mountains	3.4
San Diego	23.3	4.5	Glacier	2.7
Dallas	20.0	3.3	Acadia	1.5
Seattle	16.3	2.8		
Houston	15.9	4.1	None of the above	48.7
Detroit	15.2	3.4		
Philadelphia	14.8	2.3	<u>Theme Parks</u>	
Atlanta	14.4	2.4	Disneyland/Disney World	48.3
Miami	13.7	3.3	Universal Studios	40.7
Phoenix	12.2	2.8	Sea World	33.8
Cleveland	11.9	2.2	Six Flags	20.2
Pittsburgh	11.5	3.2	Magic Mountain	12.2
Tampa	7.8	2.3	Great America	11.4
None of the above	1.5		None of the above	35.4

Table 4. General travel patterns of respondents

Patterns	Percentage	Patterns	Percentage
<u>Nights Away From Home</u>		<u>Party Size (people)</u>	
1-3 nights	43.6	Mean: 3.28	
4-6 nights	32.3	Range: 1 - 11	
7-9 nights	12.8		
More than 9 nights	11.3	<u>Have Taken a 2-3 Day Trip</u>	92.9
<u>Number of Overnight Trips</u>		<u>Advance Planning for 2-3 Day Trips (days)</u>	
Once a year	21.0	Mean: 12.33	
Twice a year	31.8	Range: 1 - 60	
Three times a year	19.5		
Four times a year	12.4	<u>Have Taken a > 3 Day Trip</u>	93.6
More than four times a year	15.4		
<u>Number of One-Day Trips (per year)</u>		<u>Advance Planning for > 3 Day Trips (days)</u>	
Mean: 7.04		Mean: 26.06	
Range: 0 - 60		Range: 1 - 98	

Table 5. Characteristics of the longest trip in the last 12 months

Patterns	Percentage	Patterns	Percentage
<u>Nights Away From Home</u>		<u>Total Cost Per Person</u>	
Mean: 9.70		\$100 or less	11.6
Range: 1 - 60		\$101-\$200	17.2
		\$201-\$300	13.8
		\$301-\$400	13.1
<u>Party Size (people)</u>		\$401-\$500	11.9
Mean: 3.68		\$501-\$600	10.4
Range: 1 - 40		More than \$600	22.0
<u>Advance Planning (days)</u>		<u>Accommodation Cost Per Person Per Night</u>	
Mean: 29.84		\$10 or less	26.0
Range: 1 - 200		\$11-\$20	23.0
		\$21-\$30	18.2
<u>Modes of Transportation ^a</u>		\$31-\$40	10.8
Automobile	84.4	\$41-\$50	11.2
Plane	42.2	\$51-\$60	5.2
Bus	12.2	More than \$60	5.6
Truck/Van/RV	5.6		
Train	4.8		
Others	2.2		
		<u>Meals Cost Per Person Per Day</u>	
<u>Accommodation ^a</u>		\$10 or less	25.7
Hotel/Motel	71.5	\$11-\$15	24.3
Home of friends/relatives	58.1	\$16-\$20	25.4
Campground/Trailer park	6.3	\$21-\$25	15.3
Others	3.7	More than \$25	9.3

^a Multiple responses.

Table 6. Party size and advance planning by demographic groups

Variables	<u>Group 1</u>		<u>Group 2</u>		t-value
	n	Mean	n	Mean	
<u>Age</u>	<u>≤ 26 years</u>		<u>≥ 27 years</u>		
Party size	131	3.70	132	2.83	4.70***
Advance planning for 2-3 day trips	119	10.07	111	14.75	-3.02**
<u>Years in the U.S.</u>	<u>≤ 3 years</u>		<u>≥ 4 years</u>		
Party size	160	3.51	103	2.92	3.03**
Advance planning for 2-3 day trips	139	10.70	91	14.81	-2.59**
<u>Degree Sought</u>	<u>Undergraduate</u>		<u>Graduate</u>		
Party size	113	3.63	151	3.01	3.21**
Advance planning for 2-3 day trips	101	10.47	129	13.78	-2.11*
<u>Marital Status</u>	<u>Single</u>		<u>Married</u>		
Party size	171	3.43	93	3.00	2.13*
<u>Live-in Children</u>	<u>Without Children</u>		<u>With Children</u>		
Party size	49	2.65	44	3.39	-2.94*
<u>Discretionary Income</u>	<u>≤ \$5,000</u>		<u>≥ \$5,001</u>		
Party size	134	3.55	119	2.97	3.00**
<u>Financial Support</u>	<u>Assistantship/ Scholarship</u>		<u>Parents/ Family</u>		
Party size	77	2.81	48	3.88	-3.81***
Advance planning for 2-3 day trips	69	14.22	43	9.56	2.02*
Advance planning for > 3 day trips	66	30.29	46	19.11	3.03**

* p ≤ .05

** p ≤ .01

*** p ≤ .001

Table 7. Number of overnight trips by demographic groups

Variables	<u>Group 1</u> Percentage	<u>Group 2</u> Percentage	Chi-square
<u>Gender</u>	<u>Male</u>	<u>Female</u>	
Number of overnight trips			9.82*
Once a year	20.7	21.6	
Twice a year	29.1	37.5	
Three times a year	18.4	21.6	
Four times a year	11.7	13.6	
More than four times a year	20.1	5.7	
<u>Age</u>	<u>≤ 26 years</u>	<u>≥ 27 years</u>	
Number of overnight trips			12.94*
Once a year	15.3	25.9	
Twice a year	27.5	36.3	
Three times a year	24.4	14.8	
Four times a year	12.2	12.6	
More than four times a year	20.6	10.4	
<u>Degree Sought</u>	<u>Undergraduate</u>	<u>Graduate</u>	
Number of overnight trips			11.03*
Once a year	15.2	25.2	
Twice a year	26.8	35.5	
Three times a year	25.9	14.8	
Four times a year	12.5	12.3	
More than four times a year	19.6	12.3	
<u>Marital Status</u>	<u>Single</u>	<u>Married</u>	
Number of overnight trips			14.88**
Once a year	16.1	30.1	
Twice a year	28.7	37.6	
Three times a year	23.0	12.9	
Four times a year	13.2	10.8	
More than four times a year	19.0	8.6	

* $p \leq .05$ ** $p \leq .01$

Table 8. Travel information sources by demographic groups

Variables	<u>Group 1</u>		<u>Group 2</u>		t-value
	n	Mean	n	Mean	
<u>Age</u>	<u>≤ 26 years</u>		<u>≥ 27 years</u>		
Before: Past experiences	134	3.45	135	3.12	2.42*
Convention/Visitor bureau	134	1.84	135	2.22	-2.55*
Travel wholesalers	134	1.43	135	1.25	2.06*
After: Past experiences	133	3.43	135	3.07	2.48*
Billboards/Signs	134	2.52	134	2.17	2.11*
<u>Years in the U.S.</u>	<u>≤ 3 years</u>		<u>≥ 4 years</u>		
Before: Family/Friends	165	3.82	104	3.56	2.04*
State tourism office	165	1.75	103	2.09	-2.48*
Chamber of commerce	165	1.30	104	1.54	-2.40*
After: Visitor welcome centers	163	2.40	104	2.75	-2.05*
Chamber of commerce	164	1.31	104	1.54	-2.09*
<u>Degree Sought</u>	<u>Undergraduate</u>		<u>Graduate</u>		
Before: Past experiences	114	3.59	156	3.05	3.96***
Pamphlets/Brochures	113	3.00	156	2.64	2.25*
Billboards/Signs	114	2.56	156	2.13	2.63**
Travel agents	114	2.25	154	1.94	2.07*
Convention/Visitor bureau	114	1.81	156	2.19	-2.64*
Travel wholesalers	114	1.47	156	1.25	2.40*
After: Past experiences	113	3.55	156	3.03	3.60***
<u>Marital Status</u>	<u>Single</u>		<u>Married</u>		
Before: Family/Friends	177	3.82	93	3.53	2.24*
Past experiences	177	3.42	93	3.01	2.86**
After: Past experiences	176	3.36	93	3.02	2.24*
Travel clubs	177	2.82	93	3.37	-2.66**

Table 8. (Continued)

Variables	Group 1		Group 2		t-value
	n	Mean	n	Mean	
<u>Discretionary Income</u>	<u>≤ \$5,000</u>		<u>≥ \$5,001</u>		
Before: Maps	138	4.10	121	4.41	-2.18*
Family/Friends	138	3.84	121	3.58	2.08*
Visitor welcome centers	138	2.26	121	2.83	-3.37***
Convention/Visitor bureau	138	1.85	121	2.22	-2.41*
After: Visitor welcome centers	137	2.37	120	2.72	-2.05*
Convention/Visitor bureau	138	1.73	119	2.10	-2.41*
<u>Financial Support</u>	<u>Assistantship/ Scholarship</u>		<u>Parents/ Family</u>		
Before: Maps	78	4.06	49	4.49	-2.11*
Past experience	78	2.97	49	3.69	-3.36***
Travel club	78	2.62	49	3.20	-2.09*
Pamphlets/Brochures	78	2.50	48	3.13	-2.51*
Billboards/Signs	78	1.99	49	2.71	-3.02**
Travel agents	77	1.77	49	2.22	-1.98*
Travel wholesalers	78	1.14	49	1.39	-2.18*
After: Past experience	78	2.78	48	3.46	-3.02*

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

Table 9. Significant differences by age and degree sought: the longest trip in the last 12 months

Variables	<u>Group 1</u>		<u>Group 2</u>		t-value
	n	Mean	n	Mean	
<u>Age</u>	<u>≤ 26 years</u>		<u>≥ 27 years</u>		
Party size	134	4.25	135	3.12	2.71**
<u>Degree Sought</u>	<u>Undergraduate</u>		<u>Graduate</u>		
Nights stay away from home	114	10.89	156	8.83	2.22*
Party size	114	4.22	156	3.28	2.21*

* $p \leq .05$

** $p \leq .01$

Table 10. Travel costs by marital status and discretionary income: the longest trip in the last 12 months

Variables	<u>Group 1</u> Percentage	<u>Group 2</u> Percentage	Chi-square
<u>Marital Status</u>	<u>Single</u>	<u>Married</u>	
Total cost			16.67**
\$100 or less	8.5	17.4	
\$101-\$200	14.2	22.8	
\$201-\$300	11.9	17.4	
\$301-\$400	13.1	13.0	
\$401-\$500	12.5	10.9	
\$501-\$600	12.5	6.5	
More than \$600	27.3	12.0	
 <u>Discretionary Income</u>	 <u>≤ \$5,000</u>	 <u>≥ \$5,001</u>	
Accommodation cost per person per night			13.50*
\$10 or less	34.8	16.5	
\$11-\$20	23.2	24.0	
\$21-\$30	15.2	22.3	
\$31-\$40	9.4	9.9	
\$41-\$50	9.4	12.4	
\$51-\$60	4.3	6.6	
More than \$60	3.6	8.3	

* $p \leq .05$

** $p \leq .01$

References

- Blazey, M. A. (1992). Travel and retirement status. *Annals of Tourism Research*, 19, 771-783.
- Capella, L. M., & Greco, A. J. (1987). Information sources for elderly vacation decisions. *Annals of Tourism Research*, 14, 148-151.
- Davis, J. A. (1971). *Elementary Survey Analysis*. Englewood: Prentice Hall.
- Epperson, A. F. (1977). *Private and Commercial Recreation*. New York: John Wiley & Sons, Inc.
- Institute of International Education. (1993). *Open Doors 1992/1993*. New York: Author.
- Lansing, J. B., & Blood, D. (1964). *The Changing Travel Market*. Ann Arbor: Institute for Social Research.
- Loudon, D. L., & Della Bitta, A. J. (1979). *Consumer Behavior: Concepts and Applications*. New York: McGraw-Hill Book Company.
- McIntosh, R. W., & Goeldner, C. R. (1990). *Tourism Principles, Practices, Philosophies* (6th ed.). New York: John Wiley & Sons, Inc.
- Mieczkowski, Z. (1990). *World Trends in Tourism and Recreation*. New York: Peter Lang Publishing, Inc.
- SPSS Inc. (1990). *SPSS Reference Guide*. Chicago: Author.
- Vogt, J. W. (1976). Wandering: youth and travel behavior. *Annals of Tourism Research*, 4, 25-41.

GENERAL CONCLUSIONS

Summary

The purpose of this study was to determine travel behaviors of international students at Iowa State University (ISU). The five major objectives were to identify:

1. Frequency of travel-related activities and travel patterns of ISU international students;
2. Their information sources and trip destination selection;
3. Their travel-related characteristics in general and the longest trip taken in the last 12 months;
4. Their demographic characteristics; and
5. Relationships between their demographic characteristics and travel behaviors.

A questionnaire was designed to collect information about travel behaviors of international students. Copies of the questionnaire were reviewed by three researchers for content validity. A pilot test was conducted with 15 international students to improve comprehension. The questionnaire was mailed to 600 randomly selected international students during Spring Semester of 1994. A total of 278 questionnaires were returned, for a 46.3% response rate. Descriptive statistics were calculated for all survey items. Factor analysis was used to group variables together in travel-related activities. Pearson correlations were used to determine relationships between information sources used before and after tourism destinations had been selected. Significant differences between respondents with different demographic characteristics were determined by using t-tests

and chi-square analyses.

About two-thirds of respondents were male (66.7%), with an average age of 27 years. Taiwan (17.4%) was the leading home country which respondents came from. Respondents had been in the U.S. for three years and nine months, with bachelor's degree (42.2%) as the most popular degree sought.

Close to two-thirds of the respondents were single (65.6%). The majority of respondents (82.9%) did not have any children living with them. In terms of financial status, over 50% of respondents had \$5,000 or less to spend annually after paying tuition, school-related expenses, and housing. On the other hand, 20% of them had more than \$9,000 to spend. The two major sources of financial support were assistantship/scholarship (68.5%) and parents/family (55.4%).

Respondents were more likely to have touring (sightseeing, touring a city, visiting a museum) and social (shopping, visiting friends/relatives) experiences. The use of maps, family/friends, and past experience as travel information sources were clearly evident. In general, respondents stayed away from home for one to three nights (43.6%) or four to six nights (32.3%) for overnight trips. Respondents also tended to have overnight trips once (21.0%) or twice (31.8%) a year. On average, the number of one-day trips per year was seven. The average party size was three people. The majority of respondents (92.9%) had taken 2- to 3-day trips, with 12 days of advanced planning. The majority of respondents (93.6%) also had taken trips lasting longer than 3 days, with 26 days of advanced planning. Automobile, hotel/motel, and fast food restaurants were frequently used while traveling.

Of the 20 largest cities listed on the questionnaire, Chicago and Minneapolis were the most popular destinations. Close to half (48.7%) of the respondents had never been to a national park, and over one-third (35.4%) of the respondents had never been to a theme park. Disneyland/Disney World (48.3%) and Universal Studios were the two most popular theme parks.

International students were likely to travel in groups of three to four people. As respondents got older, were in the U.S. longer, sought a higher degree, and received financial support totally from assistantship/scholarship, the length of planning a 2- to 3-day trip was likely to be longer. In terms of the number of overnight trips taken by the international students, older, married female respondents pursuing an advanced degree tended to take fewer overnight trips than young, single, male undergraduate respondents.

For the longest trip in the continental U.S. in the last 12 months, respondents stayed away from home for an average of 10 days, had an average party size of four people, and planned the trip 30 days in advance. The majority of respondents used an automobile (84.4%) as the principal mode of transportation, and stayed at a hotel/motel (71.5%) or the home of friends/relatives (58.1%). The total cost per person for this trip varied from \$100 or less to more than \$600. Close to half of the respondents (49.0%) spent \$20 or less on lodging expenses per night per person. More than three-quarters of respondents (75.4%) spent \$20 or less on food per day on this trip.

In terms of the longest trip in the last 12 months, younger undergraduate respondents tended to travel in larger groups. Undergraduate international students also stayed away from home longer than graduate students while traveling. Married respondents tended to

spend less on travel than their single counterparts. Respondents with less discretionary income tended to use less expensive forms of accommodation while traveling than the group with more discretionary income.

Recommendations

This research was subject to several limitations. First, data were based on memory of past events. Recall measurement must contend with the problems of forgetting and general memory distortion. Second, there is a bias toward the number of respondents from Asian countries. Results of the study may not generalize to the entire international student population. Third, data collection from only one university may not be representative of international students in other U.S. universities.

The researcher recommends that before using this instrument for further studies, the instrument itself should be revised. Because travel destinations, such as metropolitan areas, national parks, and theme parks, were not comprehensive lists, and were influenced by geographic location of respondents, this section could be removed. In addition, the researcher recommends future studies combining the two questions on sources of information in selecting a travel destination and after a destination been selected because mean scores for each source of information were highly correlated.

This study was exploratory in nature. It attempted to understand the travel behaviors of international students in the U.S. Because the results indicated international students' travel behaviors were of great diversity, tourism planners or managers must do further studies with a larger sample size to better define this market. With a larger sample size,

behaviors of international students from different countries could also be compared.

It would be interesting to identify international student travelers' motivations or attitudes which influence the selection of destinations or travel-related activities. Knowledge of their motivations and attitudes could help delineate and predict their preferences, behaviors, and expectations. It is also recommended to compare and contrast international students' travel behaviors with that of American young adults. Any significant differences found could help travel service providers design and promote their products and services to suit the needs of various subsegments of the young adult market.

REFERENCES

- Anderson, B. B., & Langmeyer, L. (1982). The under-50 and over-50 travelers: A profile of similarities and differences. *Journal of Travel Research*, 20(4), 20-24.
- Atchley, R. (1986). *Social forces and aging* (4th ed.). Belmont: Wadsworth Publishing Co.
- Best, J. W., & Kahn, J. V. (1989). *Research in education* (6th ed.). Englewood Cliffs: Prentice-Hall, Inc.
- Blazey, M. A. (1992). Travel and retirement status. *Annals of Tourism Research*, 19, 771-783.
- Capella, L. M., & Greco, A. J. (1987). Information sources for elderly vacation decisions. *Annals of Tourism Research*, 14, 148-151.
- Chon, K. S. (1990). Tourist information-seeking behavior and its marketing implications. *Hospitality Research Journal*, 14(2), 485-490.
- Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64-73.
- Clarke, J. (1992). A marketing spotlight on the youth 'four S's' consumer. *Tourism Management*, 13(3), 321-327.
- Epperson, A. F. (1977). *Private and commercial recreation*. New York: John Wiley & Sons, Inc.
- Frechtling, D. (1976). *Proposed standard definitions and classifications for travel research*. Washington, D.C.: U.S. Travel Data Center.
- Gitelson, R. J., & Kerstetter D. L. (1990). The relationship between sociodemographic variables, benefits sought and subsequent vacation behavior: a case study. *Journal of Travel Research*, 28(2), 24-29.
- Holzinger, K. J., & Harman, H. H. (1941). *Factor analysis: A synthesis of factorial methods*. Chicago: The University of Chicago Press.
- Hunt, J. D., & Layne, D. (1991). Evolution of travel and tourism terminology and definitions. *Journal of Travel Research*, 24(4), 7-11.

- Institute of International Education. (1993). *Open doors 1992/1993*. New York: Author.
- Javalgi, R. G., Thomas, E. G., & Rao, S. R. (1992). Consumer behavior in the U.S. pleasure travel marketplace: an analysis of senior and nonsenior travelers. *Journal of Travel Research*, 31(2), 14-19.
- Kim, J. O., & Mueller, C. (1978). *Introduction to factor analysis: What it is and how to do it*. Beverly Hills: Sage Publications.
- Lawson, R. (1991). Patterns of tourist expenditure and types of vacation across the family life cycle. *Journal of Travel Research*, 24(4), 12-18.
- Lansing, J. B., & Blood, D. (1964). *The changing travel market*. Ann Arbor: Institute for Social Research.
- McIntosh, R. W., & Goeldner, C. R. (1990). *Tourism principles, practices, philosophies* (6th ed.). New York: John Wiley & Sons, Inc.
- Menezes, D., & Chandra, S. (1989). The distant overseas U.S. tourist: an exploratory study. *Journal of Travel Research*, 28(2), 6-10.
- Mieczkowski, Z. (1990). *World trends in tourism and recreation*. New York: Peter Lang Publishing, Inc.
- Mitchell, S. (1993). How to talk to young adults. *American Demographics*, 15, 50-54.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill Book Co.
- Rosenfeld, J. P. (1986). Demographics on vacation. *American Demographics*, 9, 38-41.
- Schiffman, L. G., & Kanuk L. L. (1983). *Consumer behavior* (2nd ed.). New Jersey: Prentice-Hall, Inc.
- Shoemaker, S. (1989). Segmentation of the senior pleasure travel market. *Journal of Travel Research*, 27(3), 14-21.
- Taylor, G. D. (1987). Foreign pleasure travel by Americans. *Journal of Travel Research*, 25(3), 5-7.
- Tongren, H. N. (1980). Travel plans of the over-65 market pre and postretirement. *Journal of Travel Research*, 18(2), 7-11.

- U.S. Bureau of the Census. (1993). *Statistical abstract of the United States: 1993* (113th ed.). Washington, DC: Author.
- Vandermerwe, S. (1990). Youth consumers: growing pains. *Business Horizons*, 33, 30-36.
- Vogt, J. W. (1976). Wandering: youth and travel behavior. *Annals of Tourism Research*, 4, 25-41.
- Weinstein, A. (1987). *Market segmentation*. Chicago: Probus Publishing Company.
- Woodside, A. G., Pearce, B., & Wallo, M. (1989). Urban tourism: an analysis of visitors to New Orleans and competing cities. *Journal of Travel Research*, 27(3), 22-30.
- Womer F. B. (1968). *Basic concepts in testing*. Boston: Houghton Mifflin Company.
- Zaltman, G., & Wallendorf, M. (1983). *Consumer behavior: Basic findings and management implications*. New York: John Wiley & Sons, Inc.

ACKNOWLEDGEMENTS

Sincere appreciation is extended to the author's major professor, Dr. Cathy H. C. Hsu, for her guidance, support, and patience throughout the graduate work. Special appreciation goes to my other committee members, Dr. Nancy E. Brown and Dr. Cheryl O. Hausafus for their precious comments. The author would like to thank her parents, Yen-Chao Sung and Huang-O Sung, and family for their enduring support and boundless love during the past four years study at Iowa State University.

Finally, the author would like to thank the Family and Consumer Sciences Graduate Student Research Fund for providing financial support for the research, and the University's Office of International Students and Scholars provided a name list of international students.

APPENDIX A.

HUMAN SUBJECTS REVIEW COMMITTEE APPROVAL

9. Confidentiality of Data: Describe below the methods to be used to ensure the confidentiality of data obtained. (See instructions, item 9.)

80

Code numbers will be used to identify subjects. These codes will be removed once the name of the respondent is checked off the list. The names will not be recorded on the questionnaire or within results.

10. What risks or discomfort will be part of the study? Will subjects in the research be placed at risk or incur discomfort? Describe any risks to the subjects and precautions that will be taken to minimize them. (The concept of risk goes beyond physical risk and includes risks to subjects' dignity and self-respect as well as psychological or emotional risk. See instructions, item 10.)

There will be no risk or discomfort in the study.

11. CHECK ALL of the following that apply to your research:

- A. Medical clearance necessary before subjects can participate
- B. Samples (Blood, tissue, etc.) from subjects
- C. Administration of substances (foods, drugs, etc.) to subjects
- D. Physical exercise or conditioning for subjects
- E. Deception of subjects
- F. Subjects under 14 years of age and/or Subjects 14 - 17 years of age
- G. Subjects in institutions (nursing homes, prisons, etc.)
- H. Research must be approved by another institution or agency (Attach letters of approval)

If you checked any of the items in 11, please complete the following in the space below (include any attachments):

Items A - D Describe the procedures and note the safety precautions being taken.

Item E Describe how subjects will be deceived; justify the deception; indicate the debriefing procedure, including the timing and information to be presented to subjects.

Item F For subjects under the age of 14, indicate how informed consent from parents or legally authorized representatives as well as from subjects will be obtained.

Items G & H Specify the agency or institution that must approve the project. If subjects in any outside agency or institution are involved, approval must be obtained prior to beginning the research, and the letter of approval should be filed.

Checklist for Attachments and Time Schedule

The following are attached (please check):

- 12. Letter or written statement to subjects indicating clearly:
 - a) purpose of the research
 - b) the use of any identifier codes (names, #'s), how they will be used, and when they will be removed (see Item 17)
 - c) an estimate of time needed for participation in the research and the place
 - d) if applicable, location of the research activity
 - e) how you will ensure confidentiality
 - f) in a longitudinal study, note when and how you will contact subjects later
 - g) participation is voluntary; nonparticipation will not affect evaluations of the subject
- 13. Consent form (if applicable)
- 14. Letter of approval for research from cooperating organizations or institutions (if applicable)
- 15. Data-gathering instruments

16. Anticipated dates for contact with subjects:

First Contact

Last Contact

March 15, 1994
Month / Day / Year

June 25, 1994
Month / Day / Year

17. If applicable: anticipated date that identifiers will be removed from completed survey instruments and/or audio or visual tapes will be erased:

July 10, 1994
Month / Day / Year

18. Signature of Departmental Executive Officer Date Department or Administrative Unit

_____ 2/8/96 _____ HRIM Department

19. Decision of the University Human Subjects Review Committee:

Project Approved Project Not Approved No Action Required

Patricia M. Keith 2/17/94 _____
Name of Committee Chairperson Date Signature of Committee Chairperson

Addendum for⁸² information
for Review of Research Involving Human Subjects

Shihlin Sung
February 8, 1994

7. Brief description of proposed research involving human subjects:

The purpose of this study is to determine travel behaviors of international students at Iowa State University (ISU). The attached questionnaire was developed to gather data from approximately 600 random selected ISU international students. A 5-point rating scale is used to collect data. The subjects will be asked to complete and return questionnaires by mail.

8. Informed consent:

(1) A cover letter will send to each subject with the questionnaire. The purpose of the questionnaire and the procedures to complete the questionnaire will be indicated in the cover letter.

(2) There will be no risk or discomfort to be expected in the study.

(3) Travel-related service providers will benefit from the study in improving the needs of international students, and encourage international students to explore various parts of the United States. The international students will benefit from their needs and wants improved by the travel-related service providers.

(4) There is no alternative procedure.

(5) An offer to answer any inquiries concerning the procedures is indicated in the cover letter.

(6) The subjects are invited, not required, to participate in the study. And, they are free to withdraw their consent and to discontinue participation in the study by not returning the questionnaires. The information is indicated in the cover letter.

(7) There are no means of relating names to the subjects' questionnaire. Any coding procedures for the purpose of determining response rate will be removed prior to code data. The information is indicated in the cover letter.

(8) The amount of time required to complete the questionnaire is around 10 to 15 minutes.

APPENDIX B.

**SURVEY QUESTIONNAIRE WITH COVER LETTER
AND FOLLOW- UP LETTER**

**Travel Behaviors of International Students
at Iowa State⁸⁴ University
1994**

Definition of TRAVEL: The action and activities of people taking trips to a place or places outside of their home communities for any purpose except daily commuting to and from work.

Section I: Please answer the following questions about your travel patterns in the **CONTINENTAL UNITED STATES** (not including Hawaii and Alaska).

1. How many night(s) do you usually stay away from home on overnight trips?
 1 - 3 nights 7 - 9 nights
 4 - 6 nights More than 9 nights

2. How often do you take overnight trip(s)?
 Never Three times a year
 Once a year Four times a year
 Twice a year More than four times a year

3. How many one-day trip(s) do you usually take per year? _____

4. How many people, including yourself, do you usually travel with? _____ people

5. Have you taken a 2-3 day trip? Yes No
 If YES, how far in advance do you usually start planning a 2-3 day trip? _____ day(s)

6. Have you taken a trip lasting longer than 3 days? Yes No
 If YES, how far in advance do you usually start planning a trip lasting longer than 3 days? _____ day(s)

7. What major metropolitan area(s) have you visited since you came to the United States? How many days did you stay at each location? (Check all that apply.)
 Atlanta: _____ days New York: _____ days
 Boston: _____ days Philadelphia: _____ days
 Chicago: _____ days Phoenix: _____ days
 Cleveland: _____ days Pittsburgh: _____ days
 Dallas: _____ days San Diego: _____ days

 Detroit: _____ days San Francisco: _____ days
 Houston: _____ days Seattle: _____ days
 Los Angeles: _____ days St. Louis: _____ days
 Miami: _____ days Tampa: _____ days
 Minneapolis: _____ days Washington D.C.: _____ days

 Other (please specify _____): _____ days.
 None of the above

8. What national park(s) have you visited since you came to the United States? (Check all that apply.)

- | | |
|--|---|
| <input type="checkbox"/> Acadia | <input type="checkbox"/> 85 Rocky Mountain |
| <input type="checkbox"/> Glacier | <input type="checkbox"/> Yellowstone |
| <input type="checkbox"/> Grand Canyon | <input type="checkbox"/> Yosemite |
| <input type="checkbox"/> Grand Teton | <input type="checkbox"/> Zion |
| <input type="checkbox"/> Great Smoky Mountains | <input type="checkbox"/> Other (please specify _____) |
| <input type="checkbox"/> Redwood | <input type="checkbox"/> None of the above |

9. What theme park(s) have you visited since you came to the United States? (Check all that apply.)

- | | |
|--|---|
| <input type="checkbox"/> Disneyland/Disney World | <input type="checkbox"/> Six Flags |
| <input type="checkbox"/> Great America | <input type="checkbox"/> Universal Studios |
| <input type="checkbox"/> Magic Mountain | <input type="checkbox"/> Other (please specify _____) |
| <input type="checkbox"/> Sea World | <input type="checkbox"/> None of the above |

Section II: Please respond to each of the following questions about traveling in the Continental United States by circling the appropriate number.

- Scale 5 - Almost always
 4 - Frequently
 3 - Sometimes
 2- Seldom
 1- Never

1. How often do you perform the following activities while traveling?

	Always	Frequently	Sometimes	Seldom	Never
Sightseeing	5	4	3	2	1
Shopping	5	4	3	2	1
Visiting friends/relatives	5	4	3	2	1
Touring a city	5	4	3	2	1
Visiting a museum	5	4	3	2	1
Visiting a national park	5	4	3	2	1
Visiting a state/county/city park	5	4	3	2	1
Hiking	5	4	3	2	1
Visiting a resort	5	4	3	2	1
Going to a night club	5	4	3	2	1
Visiting a theme or amusement park	5	4	3	2	1
Gambling	5	4	3	2	1
Going on a package tour	5	4	3	2	1
Going on a cruise	5	4	3	2	1
Fishing	5	4	3	2	1
Visiting a zoo	5	4	3	2	1
Hunting	5	4	3	2	1
Skiing	5	4	3	2	1
Visiting a historical site	5	4	3	2	1

	5	4	3	2	1
Going to a beach	5	4	3	2	1
Attending a cultural event	5	4	3	2	1
Boating, canoeing, or sailing	5	4	3	2	1
Attending a convention	5	4	3	2	1
Attending a festival	5	4	3	2	1
Attending an artistic event	5	4	3	2	1
Golfing	5	4	3	2	1
Attending a sports event	5	4	3	2	1
Bicycling	5	4	3	2	1
Other (please specify _____)	5	4	3	2	1
2. How often do you use the following modes of transportation while traveling?					
Automobile	5	4	3	2	1
Bus	5	4	3	2	1
Plane	5	4	3	2	1
Train	5	4	3	2	1
Truck/ Van/Recreational vehicle	5	4	3	2	1
Other (please specify _____)	5	4	3	2	1
3. How often do you use the following accommodations while traveling?					
Home of friends/relatives	5	4	3	2	1
Hotel/Motel	5	4	3	2	1
Campground/Trailer park	5	4	3	2	1
Other (please specify _____)	5	4	3	2	1
4. How often do you use the following travel information sources in selecting travel destinations?					
Maps	5	4	3	2	1
Family/Friends	5	4	3	2	1
Past experience	5	4	3	2	1
Magazines/Newspapers	5	4	3	2	1
Television/Radio	5	4	3	2	1
Computer network	5	4	3	2	1
Pamphlets/Brochures	5	4	3	2	1
Travel clubs (e.g. AAA)	5	4	3	2	1
Travel agents	5	4	3	2	1
Travel wholesalers (e.g. Spring break package provider)	5	4	3	2	1
Convention/Visitor bureau	5	4	3	2	1
Visitor welcome centers	5	4	3	2	1
Billboards/Signs	5	4	3	2	1

Chamber of Commerce	5	4	3	2	1
State tourism office	5	4	3	2	1
Other (please specify _____)	5	4	3	2	1

5. How often do you use the following travel information sources **AFTER** tourism destinations have been selected?

Maps	5	4	3	2	1
Family/Friends	5	4	3	2	1
Past experience	5	4	3	2	1
Magazines/Newspapers	5	4	3	2	1
Television/Radio	5	4	3	2	1
Computer network	5	4	3	2	1
Pamphlets/Brochures	5	4	3	2	1
Travel clubs (e.g. AAA)	5	4	3	2	1
Travel agents	5	4	3	2	1
Travel wholesalers (e.g. Spring break package provider)	5	4	3	2	1
Convention/Visitor bureau	5	4	3	2	1
Visitor welcome centers	5	4	3	2	1
Billboards/Signs	5	4	3	2	1
Chamber of Commerce	5	4	3	2	1
State tourism office	5	4	3	2	1
Other (please specify _____)	5	4	3	2	1

6. How do you obtain your meals while traveling?

Self prepared	5	4	3	2	1
Convenience stores	5	4	3	2	1
Supermarket deli	5	4	3	2	1
Fast food restaurants	5	4	3	2	1
Family style restaurants	5	4	3	2	1
Formal restaurants	5	4	3	2	1
Other (please specify _____)	5	4	3	2	1

7. How often do you re-visit a travel destination? 5 4 3 2 1

Section III: Please answer the following questions about the **LONGEST** trip you have taken in the Continental United States in the **LAST 12 MONTHS**.

1. How many night(s) did you stay away from home on this trip? _____ night(s)
2. How many people, including yourself, did you travel with on this trip? _____ people

3. How far in advance did you start planning this trip? _____ day(s)
4. What was (were) the mode(s) of transportation used on this trip? (Check all that apply.)

<input type="checkbox"/> Automobile	<input type="checkbox"/> Train
<input type="checkbox"/> Bus	<input type="checkbox"/> Truck/Van/Recreational vehicle
<input type="checkbox"/> Plane	<input type="checkbox"/> Other (please specify _____)
5. What type(s) of accommodations was (were) used on this trip? (Check all that apply.)

<input type="checkbox"/> Home of friends/relatives	<input type="checkbox"/> Campground/Trailer park
<input type="checkbox"/> Hotel/Motel	<input type="checkbox"/> Other (please specify _____)
6. What was the TOTAL cost per person on this trip?

<input type="checkbox"/> \$100 or less	<input type="checkbox"/> \$401 - \$500
<input type="checkbox"/> \$101 - \$200	<input type="checkbox"/> \$501 - \$600
<input type="checkbox"/> \$201 - \$300	<input type="checkbox"/> More than \$600
<input type="checkbox"/> \$301 - \$400	
7. How much did you spend per person per night for accommodations on this trip?

<input type="checkbox"/> \$10 or less	<input type="checkbox"/> \$41 - \$50
<input type="checkbox"/> \$11 - \$20	<input type="checkbox"/> \$51 - \$60
<input type="checkbox"/> \$21 - \$30	<input type="checkbox"/> More than \$60
<input type="checkbox"/> \$31 - \$40	
8. How much did you spend per person per day for meals on this trip?

<input type="checkbox"/> \$10 or less	<input type="checkbox"/> \$21 - \$25
<input type="checkbox"/> \$11 - \$15	<input type="checkbox"/> More than \$25
<input type="checkbox"/> \$16 - \$20	

Section IV: Demographic Information. The following questions are for statistical purposes only. Please answer the following questions about yourself.

1. What is your gender?

<input type="checkbox"/> Male	
<input type="checkbox"/> Female	
2. What is your age? _____
3. What is your home country? _____
4. How many years have you been in the United States? _____
5. What degree are you seeking now?

<input type="checkbox"/> Bachelor's degree	<input type="checkbox"/> Doctorate degree
<input type="checkbox"/> Master's degree	<input type="checkbox"/> Other (please specify _____)
6. What is your marital status?

<input type="checkbox"/> Single/Never married	<input type="checkbox"/> Divorced
<input type="checkbox"/> Married	<input type="checkbox"/> Widowed

7. How many children do you have living with you in Ames? How old are they?
- ___ None
 ___ One: ___ years old 89
 ___ Two: ___ and ___ years old
 ___ Three or more: ___, ___, ___, and ___ years old
8. How much money do you have to spend annually **AFTER** paying tuition; school-related expenses, such as textbook; and housing?
- ___ \$3,000 or less ___ \$7,001 - \$8,000
 ___ \$3,001 - \$4,000 ___ \$8,001 - \$9,000
 ___ \$4,001 - \$5,000 ___ \$9,001 - \$10,000
 ___ \$5,001 - \$6,000 ___ More than \$10,000 (please specify _____)
 ___ \$6,001 - \$7,000

9. Please indicate the sources and percentages of financial support available to you for tuition fees and living expenses:

<u>Source</u>	<u>Percent</u>
Assistantship/Scholarship	_____
Parents/Family	_____
Self savings	_____
Other (please specify _____)	_____
=====	
Total	100 %

Thank you for your cooperation!
 Please fold this into thirds so the address shows, tape it shut (no staples please), and mail.

198-2373

S. Sung



No postage necessary if mailed in the United States

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT NO. 675 AMES, IOWA

Postage will be paid by addressee

IOWA STATE UNIVERSITY

**ISU Mail Center
 Ames, Iowa 50010-9901**



April 17, 1994

Dear Student:

I am a graduate student in the Department of Hotel, Restaurant, and Institution Management at Iowa State University. For my master's research, I am investigating the travel behaviors of international students at Iowa State University. Results of the study could help central Iowa travel businesses develop appropriate products, services, and marketing strategies to target this growing market.

You were randomly selected from the international student name list provided by the Office of International Students and Scholars. Your response is important to the success of this research. I would appreciate it if you could take approximately 15 minutes to complete the questionnaire.

The information collected will be kept confidential. Your name will not be identified. Only group results will be used to report findings. The code number on the questionnaire is to identify which questionnaires have been returned, and will be removed before data analysis.

If you have any questions about the questionnaire, please contact me or Dr. Cathy Hsu, the research advisor. Dr. Hsu's office telephone number is 294-9945, and my office telephone number is 294-4636. Please complete and mail the questionnaire no later than **April 29, 1994**.

Thank you for your cooperation and participation.

Sincerely,

Shihlin Sung
Graduate Student
Research Investigator

Cathy H.C. Hsu, PhD
Assistant Professor
Research Advisor

IOWA STATE UNIVERSITY⁹¹
OF SCIENCE AND TECHNOLOGY

College of Family and Consumer Sciences
Department of Hotel, Restaurant, and
Institution Management
11 MacKay Hall
Ames, Iowa 50011-1120
515 294-1730
FAX 515 294-8551

May 5, 1994

Dear Student:

About two weeks ago, I sent you a copy of the questionnaire for my master's research, "Travel Behaviors of International Students at Iowa State University." As I mentioned in the previous letter, results of this study could help central Iowa travel businesses develop appropriate products, services, and marketing strategies to target this growing market.

In order to present a true representation of the travel behaviors of international students, I need your help. Responses will be pooled to ensure confidentiality of participants. I would appreciate it if you could take approximately 15 minutes to complete the questionnaire.

If you have any questions about the questionnaire, please contact me or Dr. Cathy Hsu, the research advisor. Dr. Hsu's office telephone number is 294-9945, and my office telephone number is 294-4636. Please complete and mail the questionnaire as soon as possible.

Thank you for your cooperation and participation.

Sincerely,

Shih-Hsin Sung
Graduate Student
Research Investigator

Cathy H.C. Hsu, PhD
Assistant Professor
Research Advisor