This is to certify that the
dissertation entitled

DETERMINANTS OF DESTINATION IMAGE

presented by

ASLI D. A. TASCI

has been accepted towards fulfillment
of the requirements for the

Ph.D. degree in PARK, RECREATION AND TOURISM RESOURCES

Donald F. Holecek
Major Professor's Signature

8/13/03
Date

DETERMINANTS OF DESTINATION IMAGE

By

Asli D. A. Tasci

A DISSERTATION

Submitted to
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in partial fulfillment of the requirements
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DOCTOR OF PHILOSOPHY

Department of Park, Recreation and Tourism Resources

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ABSTRACT

DETERMINANTS OF DESTINATION IMAGE

By

Asli D. A. Tasci

As tourism has become an international multibillion-dollar industry, practitioners as well as academics have become interested in assessing the factors affecting the success of tourism destinations one of which is destination image management. In an effort to assist destination marketing organizations, academics have studied many aspects of the destination image construct, including factors that have an impact on destination image. However, studies on the possible antecedents of image have been limited and have yielded divergent and inconclusive results.

The purpose of this study was to provide further and more robust evidence on selected destination image antecedents by testing the relationships between destination image and selected variables. Two models were proposed and tested in an effort to explain and predict destination image, one for the general population and one for the recent visitor segment of the population. Three sets of antecedent variables were included in this study: (1) sociodemographics (race, gender, age, income, and state of residence), (2) past travel behavior (overall travel experience; previous visitation to the study destination; the frequency of visitation to the study destination; whether or not the last visit to the study destination was the most recent; the season, the length of stay and the number of activities participated in during the last visit to the study destination), and (3) a methodological variable (the season of the survey).

A large-scale longitudinal dataset (N=21,111), collected through telephone interviewing in 1996, 1997, 1998, 2001, and 2002 was used in this study. Exploratory factor analysis was used to reduce the set of image measures to fewer and more meaningful factors. Ordinary least squares regression analysis was used to identify the impact of selected antecedents on destination image.

It was found that, over the five-year period, Michigan's image remained positive, but improved during the later years. Michigan's scenic appeal was found to be its strongest attribute (mean ranging between 8.17-8.27 on a 10-point scale), while 'museums' or 'popularity' were found to be the weakest attributes at different points across the study period. Two image factors of Michigan were identified: The Setting/Sense of Place (grand mean=7.75) and Activities/Things to do (grand mean=6.93). Several antecedent factors were found to be significant in explaining these image factors in different data periods; however, few of them were robust, meaning, consistently significant across different data periods. Visitation and race for the Setting/Sense of Place Factor, age and visitors' Illinois residence for the Activities/Things to do Factor, and age, visitation, visitors' gender and most recent visitation for the Overall Image (mean image score) were found to be robust.

Based upon the study results, it is recommended that Michigan should be positioned on its strongest attribute, its scenic appeal, while improving the image of its touristic activity amenities. Promotional messages must reflect this position while taking the influential sociodemographic variables, race, age and gender into consideration. Limitations of the study and further research suggestions are also provided.

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ACKNOWLEDGMENTS

I would like to express my gratitude and appreciation to the many people who have played roles in the formation and completion of this dissertation. First, I would like to thank my mentor and advisor, Dr. Donald F. Holecek, for providing his expert knowledge and experience, guidance, and financial support during my graduate study, which made the completion of this project possible. I also extend sincere thanks to the most experienced, supportive, caring and encouraging committee members I could ever have: Dr. Joseph D. Fridgen, Dr. S. Tamer Cavusgil and Dr. Bonnie J. Knutson. Without their guidance, support and insights, it would not be possible to accomplish this endeavor.

I extend special thanks to my mentors and colleagues William Gartner, Muzaffer Uysal, Yuksel Ekinci, Ercan Sirakaya and Dogan Gursoy for their supportive fellowship that made my life easier. Thank you for sharing your experiences, insights and suggestions and for keeping in touch with your encouraging spirits!

I appreciate my family for playing a special role in completion of this project. I thank my parents, Ismail and Emine, for allowing me be who I am and believing in me, not to forget their ever lasting love, sacrifice, and support. My uncle, Şakir Ay, deserves special thanks for his fatherly love and encouragement throughout my higher education. I thank my dear and beloved brothers, sisters, nephews, nieces, cousins, uncles and aunts for their care, support, love and inspiration. Sağolun, varolun!

Last but not least, I am grateful to have a few special friends who reminded me of my priorities and kept me on my feet whenever I needed. I thank my faithful friends Ahmet Kızılay and Salih Armağan for their joyful friendship, support and inspirations throughout my graduate study. I thank my beloved friend Guy M. Lee for reminding me of the pleasures of life during troubled times. I also thank my friends Rana Yegăne, Nilgün Dalkesen, Tunc Uraz, Azlizam Aziz, Chang Huh, and Xin Li for their supportive fellowship. I owe many thanks to all those colleagues and friends who touched and left a trace on my life; you are in my heart even though I could not mention your names.

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CHAPTER I

INTRODUCTION

As travel and tourism has grown into an international multibillion dollar industry, factors affecting the success of this industry have become of interest to both academics and industry practitioners. Both academics and industry practitioners have realized the need for information on factors playing a role in the success of tourism destinations. This has led to an increased number of investigations of the many facets of successful destination marketing. One popular research focus has been the management of the image of a destination.

The destination image construct can roughly be defined as a mental picture of a destination composed of how people visualize, think, and feel towards the destination. It has different components, cognitive, affective and conative, that have intrigued many researchers. The destination image construct was first studied in the early 70s, but it wasn't until the 90s that it gained momentum, which coincides with the realization of the importance of destination image for successful destination promotion. Since both academics and practitioners in the tourism field have realized its strong effect on consumer behavior, it has been a relatively well-studied venue of inquiry in the tourism field.

Researchers have studied various aspects of the destination image construct in an effort to facilitate destination management endeavors of destination authorities. They have studied the destination image construct in relation to its potential influence on several tourist behavior variables; they have also investigated several potential

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determinant variables that could potentially have an influence on destination image. The influence of destination image on several consumer behavior variables and the influence of several determinant factors on destination image have been documented. However, due to the complex nature of the destination image construct intertwined with several other variables and concepts, there are several aspects of destination image yet to be investigated.

This chapter will start with a brief discussion of the background containing the research about the influence of destination image on consumer behavior followed by the determinant variables that have an influence on destination image. The need for conducting this study will be discussed, and the statement of the problem and research questions will be provided. Study objectives along with a brief discussion of these objectives will provide further explanation of the need for this study. Central hypotheses will be identified followed by the definition of few concepts utilized in this study. A brief summary of the subsequent chapters will also be provided at the end of this chapter.

Background

Destination image, "the sum of beliefs, ideas, and impressions that an individual has of a destination" (Crompton 1979, p. 18), is an elusive and complex research construct comprising many facets that has been the focus of the scientific inquiry. It has been conceptualized as an overall (holistic) evaluation of a destination, as well as a composite of conceptually different components, namely, cognitive, affective, and conative (Baloglu & McCleary 1999; Chen & Kerstetter 1999; Echtner & Ritchie 1993; Gartner 1993; Milman & Pizam 1995).

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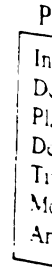

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Destination Image's Impact on Tourist Behavior

Destination image, both as an overall evaluation and with its different components, have been postulated to be influential on various consumer behavior variables. As summarized in Figure 1, previous destination image studies have shown that the image of a particular destination held by tourists has an influence on some of their behaviors concerning not only before, but also during and after visiting the destination (Britton 1979; Chen & Hsu 2000; Chen & Kerstetter 1999; Coshall 2000; Court & Lupton 1997; Fakeye & Crompton 1991; Fridgen 1987; Gartner 1989; Gartner 1993; Milman & Pizam 1995; Murphy 1999). These studies will be reviewed in detail in the next chapter.

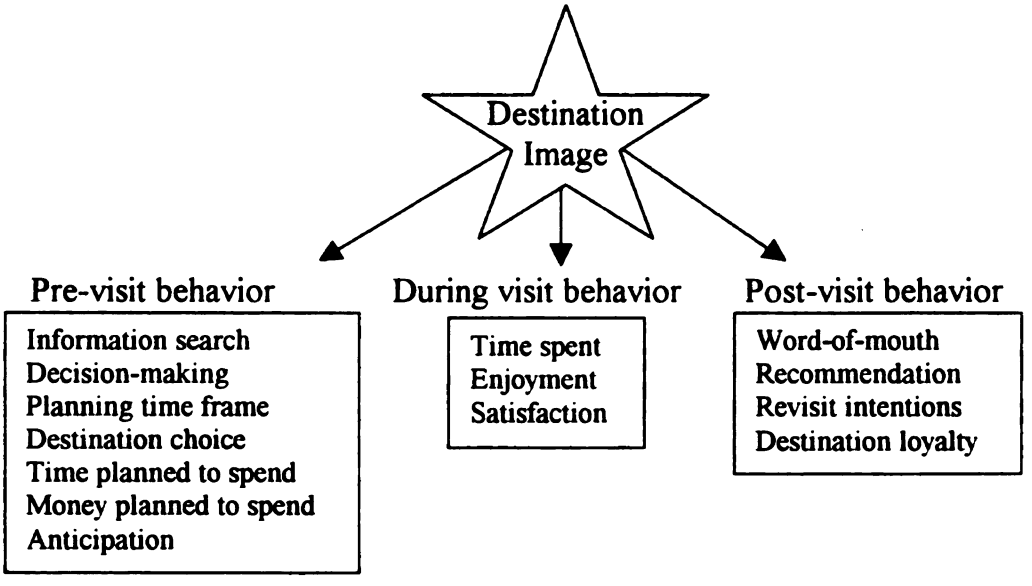

Figure 1. Tourist behavior influenced by destination image.

Several researchers have studied destination image as an independent variable influencing several consumer behavior variables, such as destination choice, decision-making and satisfaction. Both holistic destination image (measured by one variable treating destination image as an overall perception), as well as specific destination

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dimensions (measured by multiple variables focusing on individual destination attributes) and destination image factors (a composite of two or more dimensions), both cognitive and affective, were found to influence consumer behavior variables related to before, during and after visitation of a destination (Chen & Hsu 2000; Chen & Kerstetter 1999; Court & Lupton 1997; Ross 1993; Schroeder 1996).

Determinants of Destination Image

Due to destination image's potential influence on several tourist behaviors, researchers have been trying to identify the determinants that define, modify, and strengthen this construct in an effort to help destination authorities in their image management endeavors. Destination image studies have shown that several factors play a role in the destination image formation process as summarized in Figure 2.

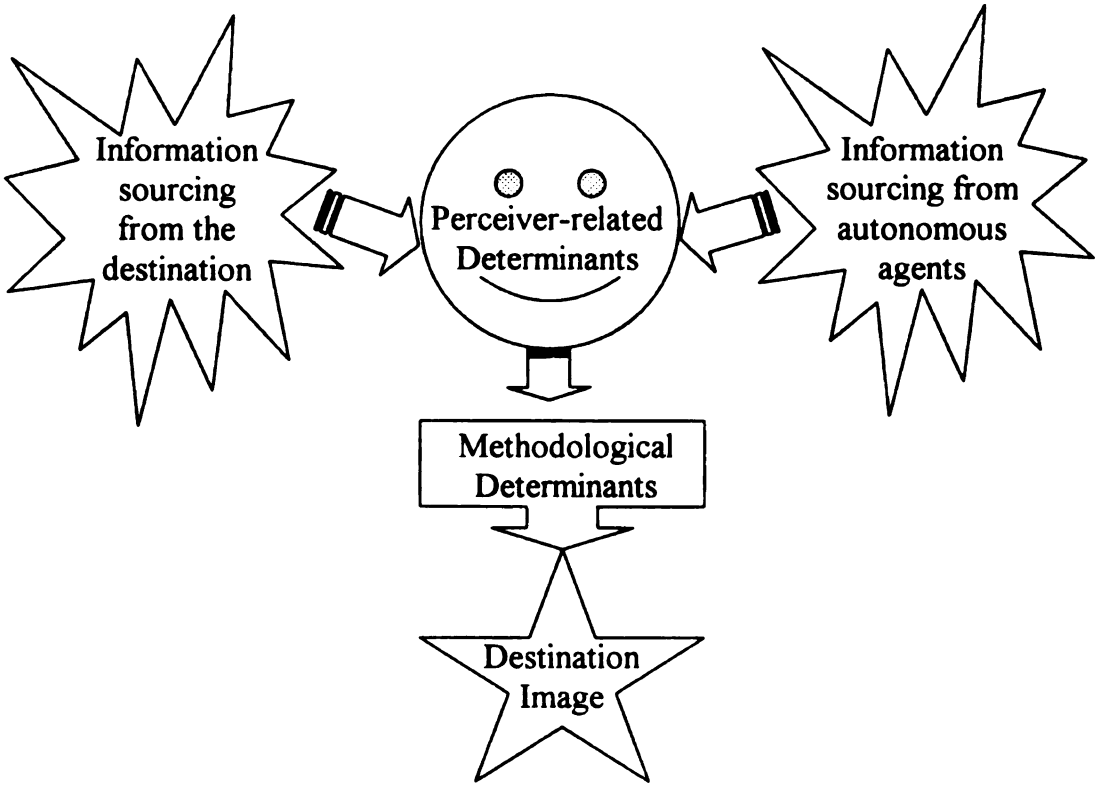

Figure 2. Determinants of destination image.

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As it is summarized in Figure 2, these determinants include: (1) information sourcing from the destination, such as promotional messages by the destination authorities, (2) information sourcing from the autonomous agents in between the destination and the perceivers, such as news articles, educational materials, movies, popular culture and word-of-mouth, (3) perceivers' characteristics including sociodemographics as well as past travel behavior, and (4) methodological factors that play a role while measuring image, such as the methodologies used and researchers themselves.

Therefore, past studies have treated destination image also as a dependent variable influenced by several of the above-mentioned factors. A few researchers have studied the influence of visual materials on the images created by different types of people (MacKay & Fesenmaier 1997; MacKay & Fesenmaier 2000; Smith & MacKay 2001); however, the literature on the impact of destination-originated information has remained mostly propositional (Alhemoud & Armstrong 1996; Bramwell & Rawding 1996; Gartner 1993; Gunn 1972). The same is true for the impact of autonomous information; few researchers have shown the dramatic impact potential of autonomous information (Gartner & Shen 1992; Sonmez, Apostolopoulos, & Tarlow 1999), while others' postulations have remained propositional (Bramwell & Rawding 1996; Gunn 1972; Gartner 1993).

Several past studies have shown the influence of perceivers' sociodemographic characteristics including age, gender, household status, education, income, and residence/geographic distance to the study destination (Alhemoud & Armstrong; Ahmed 1996; Chen & Kerstetter 1999; Hunt 1975; MacKay & Fesenmaier 1997). There is a lack of research on other sociodemographic variables such as race.

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Several past travel behavior variables, including previous visitation, the amount of previous visitation, and length of stay have also been documented as important determinants of destination image by several researchers (Crompton 1979; Fakeye & Crompton 1991; Hu & Ritchie 1993; Baloglu & McCleary 1999; Chen & Kerstetter 1999; Vogt & Andereck, in press). However, there is a lack of research on other past travel behavior, such as overall travel experience, how recent the last trip was, the season of the last visit and activities participated in while at the destination.

Some methodological factors have been recognized to have a possible impact on destination image as measured by researchers (Dadgostar & Isotalo 1992; Echtner & Ritchie 1993). However, there has been a lack of focus on measuring the impact of methodological factors empirically, such as the timing of survey (Gartner 1986). The literature on the determinants of image will also be reviewed in detail in the next chapter.

Statement of the Problem

Although destination image researchers have investigated the impact of several possible destination image determinants, including sociodemographics and past travel behavior, their efforts have not been comprehensive or conclusive enough to solidify a theoretical background for future researchers. There has been a lack of attention on some variables potentially influential on destination image. In addition, results of previous studies have remained not only divergent but also destination and time-specific since these results have not been replicated by other researchers for other destinations or for the same destinations over an extended period of time. Also, there has been a lack of studies solely focusing on the determinants of destination image. Previous studies have provided

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piecemeal information about the determinants of destination image after satisfying the main goal of these studies, which has usually been measuring the image of a specific destination. Moreover, previous studies have not attempted to identify the relative magnitude of the determinant variables even when the impact of multiple determinant variables was studied.

As depicted in Figure 3, the purpose of this study is to provide further and more robust evidence of the relative impact of selected determinant variables, including perceiver variables (selected sociodemographic characteristics and past travel behavior) and a methodological variable (the season of the survey). The relative magnitude of these determinant variables will be identified through application of a multiple regression model with destination image as the dependent variable and selected determinant variables as the independent variables. Robustness will be assured through validation of the results on data from different time periods by using extensive longitudinal data gathered over a five-year period.

Thus, the researchable questions emerging from the purpose of this study are: Are selected sociodemographic and past travel behavior variables influential on destination image, if so, what is each variable's relative influence? Is the season of the survey, as a methodological determinant, influential on destination image, if so, what is its influence relative to the other determinant variables? In addition, in an effort to both explain and predict destination image, can a parsimonious model of these determinant variables be developed for the general population (including those who previously visited the study destination and those who did not) and the recent visitor segment of the population (only those who visited the study destination within the past 12 months)? Answers to these


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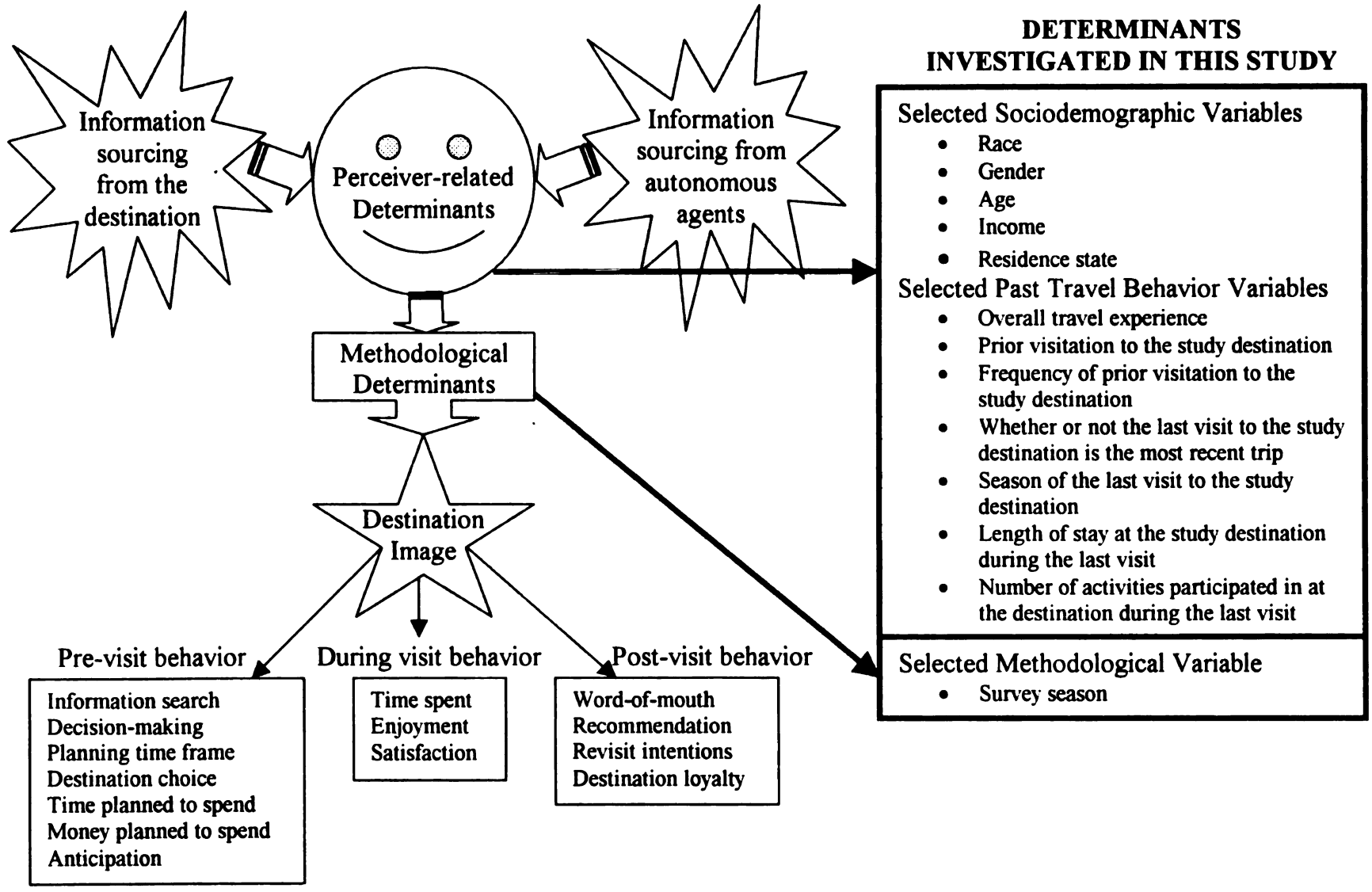

Figure 3. A model of destination image, its determinants and effects.

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questions will provide destination promoters with valuable information to be used for their image management activities.

Study Objectives

From the researchable questions mentioned above, the following five objectives were identified to frame this study:

1) To investigate the impact of selected sociodemographic variables on destination image,
2) To investigate the impact of selected past travel behavior variables on destination image,
3) To measure the impact of the season of the survey on destination image,
4) To create a general population model of destination image and selected determinant variables, including perceiver-related variables (selected sociodemographics and past travel behavior) and the season of the survey,
5) To create a recent visitor segment model of destination image and selected determinant variables, including perceiver-related variables (selected sociodemographics and past travel behavior) and the season of the survey.

Discussion of the Objectives

Objective 1. Various sociodemographic variables, such as residence, gender, income, age, the level of education, family life cycle and household size have been found to be influential on tourist behavior (Bojanic 1992; Court & Lupton 1997; Dadgostar & Isotalo 1992; Etzel & Woodside 1982; Gentry & Doering 1979; McQueen & Miller

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1985; Schul & Crompton 1983; Snepenger, Meged, Snelling, & Worrall 1990; Woodside & Pitts 1976). In the travel research literature, destination image is also postulated to be influenced by various sociodemographic variables. Several researchers have investigated and documented the relationships between various sociodemographic variables and destination image (Alhemoud & Armstrong; Ahmed 1996; Chen & Kerstetter 1999; Crompton 1979; Hunt 1975; Joppe, Martin, & Waalen 2001; MacKay & Fesenmaier 1997).

A few researchers have studied the impact of respondents' residence or distance from the study destination and found a significant influence of this variable on destination image (Hunt 1975; Crompton 1979; Walmsley & Young 1998). Some researchers have studied age in relation to its influence on destination image; however, the results have been divergent. Some researchers have reported image differences for different age groups (Alhemoud & Armstrong 1996; Baloglu 2001) while others did not find any differences (MacKay & Fesenmaier 1997; Smith & MacKay 2001). Only a few researchers have investigated the influence of gender (Chen & Kerstetter 1999; MacKay & Fesenmaier 1997) and income (MacKay & Fesenmaier 1997) on destination image. There is a lack of research on the race variable in the destination image literature.

Destination image is a construct with cognitive (factual information about a destination) and affective (feelings and attitude towards a destination) components, both of which could be defined by the perceivers' sociodemographic characteristics. Since the existing body of empirical studies investigating sociodemographic influences on destination image has not been substantial, there is room for more investigation of such influences. Therefore, sociodemographic variables (available in the secondary data set

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used for the purposes of this study) investigated in this study include: (1) race, (2) gender, (3) age, (4) total annual household income, and (5) respondents' state of residence. The central research question is: Do respondents' sociodemographic characteristics influence their images of a destination, if so, what is each sociodemographic variable's relative influence compared to other determinant variables? These sociodemographic variables are hypothesized to have varying degrees of influence on destination image; if this hypothesis is proven, this information can be used to specify which market variables to focus on in directing the promotional messages for image management purposes including, image formation, correction, and maintenance. The findings would be of value especially for the destination authorities striving to change, improve or strengthen the images of their destination.

Objective 2. Past travel behavior variables have been investigated for their influence on destination image. Several researchers have investigated the influence of prior visitation and arrived at different results. Some have observed that visitors hold more accurate and positive images (Baloglu & McCleary 1999; Milman & Pizam 1995; Selby & Morgan 1996), or more or better affective responses (Baloglu & McCleary 1999; MacKay & Fesenmaier 1997); some have found mixed results (Ahmed 1996; Fakeye & Crompton 1991; Hu & Ritchie 1993); yet others have found no significant influence of prior visitation on a destination's image (Chen & Kerstetter 1999; Hunt 1975).

Along with visitation itself, some visitation-related variables, such as the amount of previous visitation (Baloglu 2001; Fakeye & Crompton 1991; Schroeder 1996; Vogt & Andereck, in press) and the length of stay at the destination (Fakeye & Crompton 1991;

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Schroeder 1996; Vogt & Andereck, in press) have also been investigated and found to influence destination image.

There is a lack of research on other past travel behavior variables that could potentially influence destination image. Factors, such as overall travel experience and some visitation-related variables, such as how recent the last trip was, the season of the visit, and the number of activities participated in at the destination could influence the formation of the image of a destination. Although there is a lack of direct focus on the influence of these variables on destination image, there is some evidence of a possible influence of the overall travel experience (Schroeder 1996), the amount of activities participated at the destination (Ashworth 1989; Fakeye & Crompton 1991), and the season of the trip to the destination (Gartner 1986). This will be discussed further in the next chapter.

In addition to prior visitation, several other past travel behavior variables were investigated in this study. Although findings in the destination image literature drive one to conclude that prior visitation could alter destination image in a dramatic way, the direction of the causal relationship between destination image and visitation is yet to be determined (Baloglu 2001; Tasci & Holecek 2002); as displayed in Figure 4, either destination image or visitation could be the starting point and each one could be feeding on the other.

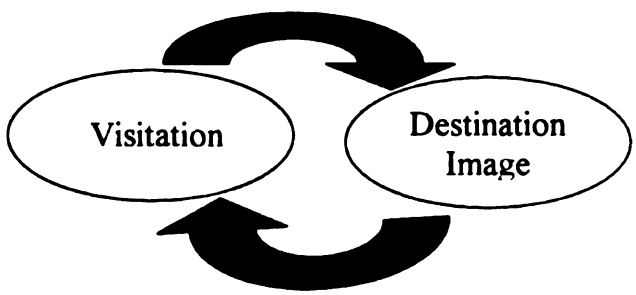

Figure 4. The causal relationship between visitation and destination image.

Figure 5.

However, in this study, it will be assumed that visitation improves destination image. This assumption is driven by the logic arrived at by synthesizing the existing literature. A few researchers have postulated that previous visits to a destination influence subsequent visits by playing a reassuring role in the decision for further visitation (Court & Lupton 1997; Gyte & Phelps 1989; McQueen & Miller 1985; Woodside 1980). As was mentioned before, several researchers agree that destination image influences the decision to visit a destination. Thus, if visitation brings subsequent visits, and destination image influences visitation, then visitation improves destination image, which induces more visitation as illustrated in Figure 5.

Thus, it is assumed in this study that visitation influences destination image, which influences subsequent visits. However, the first visit could be due to a positive image formed through exposure to information prior to that first visit.

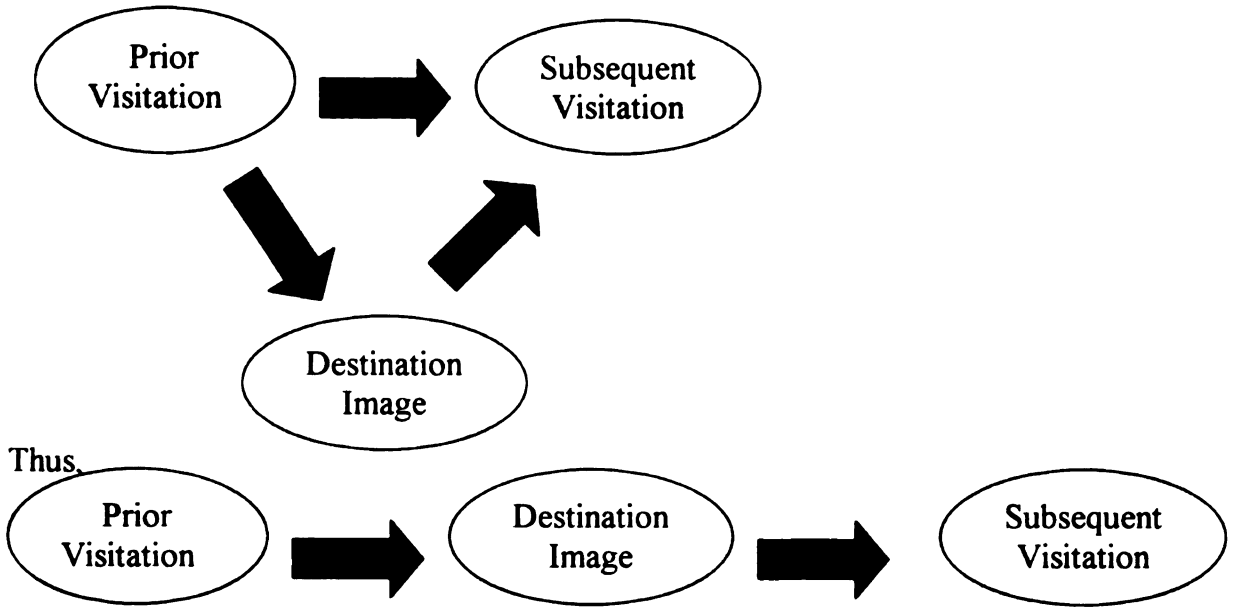

Figure 5. The logical relationship between prior visitation, subsequent visitation and destination image.

Past travel behavior variables (available in the secondary data set used for the purposes of this study) investigated in this study include: (1) overall travel

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experience, measured as the number of trips to any destination within the past 12 months, (2) prior visitation to the study destination, (3) the frequency of visitation to the study destination, measured as the number of visits within the past 12 months, (4) whether or not the last visit to the study destination is the most recent trip, (5) the season of the last visit to the study destination, (6) the length of stay at the study destination during the last visit, measured as the number of nights spent, and (7) the number of activities participated in at the study destination during the last visit. The central question is: Are selected past travel behavior variables influential on respondents' images of a destination, if so, what is their relative influence among other selected determinant variables? Determining the relative influence of past travel behavior variables would reveal valuable information for destination marketers in terms of what to stress in their marketing communications to improve a destination's image. Destination marketers would benefit from the results on the degree of influence of visitation and other visitation-related variables for weighing and improving the benefits of familiarization tours and discounted offers to gain positive image through visitation.

Objective 3. Although there has been a lack of research on the impact of methodological factors on destination image, it is hypothesized that the methods researchers use, such as qualitative rather than quantitative methods and the timing of data collection could influence the results obtained about the image of a destination. One methodological factor hypothesized to affect destination image, the season of the survey, will be examined in this study. It is expected that the season of the survey will have an impact on the destination image measured. This expectation is based on two assumptions:

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(1) different seasons will connote different meanings about a destination, and (2) different seasons will have different effects on an individual's mood, the "state of mind reflecting one's feelings at any particular moment" (Sirakaya, Petrick, & Choi 2002), thereby affecting her/his responses to destination image items. Studying the satisfaction levels of the passengers of two different Caribbean cruises, Sirakaya, Petrick, and Choi (2002) found an influence of individuals' mood on their attribute evaluations and overall satisfaction.

The central research question is: Is the season of the survey, as a methodological determinant, influential on destination image, if so, what is its influence relative to other selected determinant variables? Identifying the possible effect of this methodological variable would caution researchers about accounting for such an influence on their results and generating remedial measures, such as calibrating their results for different seasons.

Objective 4. The purpose of this study is to contribute to the existing destination image knowledge by providing a parsimonious (balancing simplicity and fit) model of destination image and its determinants, including selected sociodemographic, past travel behavior, and a methodological variable. The research question is: In an effort to both explain and predict destination image, can a parsimonious model of the best subset of destination image determinants for the general population (including those who previously visited the study destination and those who did not) be developed? It is expected that the selected sociodemographics, past travel behavior and the methodological variable have different degrees of impacts on a destination's image.

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Therefore, destination image for the general population is proposed to be a function of these selected variables as detailed below:

DI = f (R, G, A, I, S, OTE, V, SS)

where,

DI = Respondents' image of the study destination
R = Respondents' race
G = Respondents' gender
A = Respondents' age
I = Respondents' total annual household income
S = Respondents' state of residence
OTE = Respondents' overall travel experience
V = Prior visitation to the study destination
SS = Survey season

As was mentioned before, the knowledge on the relative magnitude of the impacts of these variables on destination image would be valuable for destination marketers in terms of which characteristics of the target markets to focus on while directing their marketing communications.

Objective 5. A similar model, including selected sociodemographics, past travel behavior and a methodological variable, is also proposed for the recent visitor segment of the population (those respondents who visited the study destination within the past 12 months). In the recent visitor segment model, the visitation variable is excluded since respondents will all be recent visitors; however, additional visitation related variables are included in this model: (1) the frequency of visitation to the study destination, measured as the number of visits within the past 12 months, (2) whether or not the last visit to the study destination is the most recent trip, (3) the season of the last visit to the study destination, (4) the length of stay at the study destination during the last visit, measured

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as the number of nights spent, and (5) the number of activities participated in at the study destination during the last visit.

The central research question is: In an effort to both explain and predict destination image, can a parsimonious model of destination image determinants for the recent visitor segment of the population be developed? The findings will reveal which variables marketers should focus on to improve image of their destinations, thus, induce more visitation. Therefore, destination image for the recent visitor segment of the population is proposed to be a function of these selected variables as detailed below:

DI = f (R, G, A, I, S, OTE, SS, VF, VR, VS, N, AC)

where,

DI = Respondents' image of the destination
R = Respondents' race
G = Respondents' gender
A = Respondents' age
I = Respondents' total annual household income
S = Respondents' state of residence
OTE = Respondents' overall travel experience
SS = Survey season
VF = Visitation frequency to the study destination
VR = Whether or not the last visit to the study destination is the most recent trip
VS = Season of the last visit to the study destination
N = Number of nights spent at the study destination during the last visit
AC = Number of activities participated in during the last visit to the study destination

Central Research Hypotheses

Hypothesis 1. Selected sociodemographic variables, past travel behavior variables and the season of the survey have varying degrees of influence on the destination image held by the general population, including those who previously visited the study destination and those who did not.

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Hypothesis 2. Selected sociodemographic variables, past travel behavior variables and the season of the survey have varying degrees of influence on the destination image held by the recent visitor segment of the population, including those who visited the study destination within the past 12 months.

Definitions of Related Concepts

In the destination image literature, the concepts of image dimension, image factor and component are used interchangeably. For scientific parsimony, a uniform terminology based upon the following definitions of these concepts will be used throughout this dissertation.

Image Dimensions: Individual destination attributes that make up the image of a destination, such as natural landscape, climate, transportation, historical and cultural attractions, accommodation, eateries, and hospitality. Image attributes and image dimensions are used interchangeably throughout this dissertation.

Image Factor: An image construct, such as natural resources, convenience, and comfort that are composites of several image dimensions. Individual image dimensions (usually 2 or more) are reduced to a factor through analysis tools, such as Exploratory Factor Analysis or Confirmatory Factor Analysis.

Image Component: Image component is used when referring to cognitive, affective or conative aspects of the destination image concept. The cognitive component of destination image is the factual information about a destination; the affective component comprises attitudes and feelings towards a destination; conative component refers to actions or action intentions sourcing from image.

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Overall Image: The overall or holistic assessment of a destination with one single variable, extracted either by asking the respondents their overall assessment of the destination or averaging their ratings of the multiple individual dimensions of a destination

Special Terminology

General Population: Throughout this dissertation, general population is used to refer to the study population inclusive of all people, including those who visited the study destination and those who did not.

Visitors & Non-visitors: There are three types of visitors in the secondary data set used in this study: (1) those who visited the study destination on their most recent trip within the past 12 months, (2) those who visited the study destination in a less recent trip within the past 12 months, and (3) those who visited the study destination sometime but not within the past 12 months. To be all-inclusive, all of these visitor types are included in the image measure analysis, including descriptives and factor analysis of image measures. Hence, in the image analysis part, 'visitors' is used to refer to all three types of visitors and 'non-visitors' is used to refer to those who have never visited the study destination.

Visitors vs. Recent Visitors: In the recent visitor segment model analysis, only the two groups of visitors mentioned above, namely the recent visitors who visited the study destination within the past 12 months, are included in the analysis. The third group of visitors mentioned above (those who visited the study destination sometime but not within the past 12 months) is excluded from the analysis since there is no information in

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the dataset about their trip to the study destination. Thus, the 'recent visitors' name is coined to differentiate this group from 'visitors'.

Summary of the Content of the Dissertation

In Chapter 1, the general background, reasoning and hypotheses of this study are provided. Chapter 2 summarizes a review of the literature related to the destination image concept including its influence on tourist behavior and determinant factors that play a role in the image formation process. This chapter also includes a literature review on the methodological aspects of this study. Chapter 3 contains the research methods utilized to investigate the research questions of this study, including the study design, the study population, data collection mode, data preparation and analysis tools. Chapter 4 contains study results and discussion, including the profile of mixed sample and visitor sample, destination image measured, the impact of selected determinant variables along with the general population and the recent visitor segment models. In Chapter 5, a summary of study results along with managerial, theoretical and methodological implications are provided, ending with future research suggestions.

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CHAPTER II

LITERATURE REVIEW

The purpose of this study is to build on the existing knowledge about the intricate relationships between destination image and various possible determinant variables, namely, selected respondent sociodemographics and past travel behavior and a methodological variable (the season of the survey). This chapter provides a summary of existing literature, conceptual and empirical, related to the relationships between destination image and these possible determinant variables. The literature review is organized around two subjects: (1) the concepts related to the subject matter of this study, and (2) the methods utilized in this study. The conceptual review entails the four sets of variables included in this study: (1) destination image (2) sociodemographics, (3) past travel behavior, and (4) a methodological variable. The methodological review encompasses a discussion of: (1) the computer-assisted telephone interview, data collection method used in this study, and (2) the analysis tools utilized in this study (i.e., factor analysis and regression analysis).

Destination Image

Destination image, which is "the sum of beliefs, ideas, and impressions that a person has of a destination" (Crompton 1979, p. 18), is an intricate concept with links to various possible determinants. Many researchers agree that destination image has two components although they use different terminology for them: cognitive and affective components. Gartner (1993), who is a widely cited destination image researcher,

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delineates the cognitive component as a factual and intellectual evaluation of the known attributes of a destination. According to him, human motives are the defining force behind the affective component of image; motives determine what people wish to obtain from a destination, and thus, affect how people evaluate that destination. Therefore, in Gartner's contention, the affective component, comprised of attitudes and feelings towards a destination, becomes relevant only when a potential visitor starts evaluating destinations on his/her choice set. Gartner also maintains that these components are hierarchically interrelated, and he adds another component to this hierarchy: conative, the action component, visiting the destination in this case. Baloglu and McCleary (1992) also state that cognitive and affective components are interrelated, and the affective component depends on and is a function of the cognitive component. Although many image definitions recognize both cognitive and affective components, they suggest that empirical studies have largely focused on the perceptual or cognitive component of destination image. They purport that these components should be measured separately to better predict behavior.

Destination image is an important aspect in successful tourism development and destination marketing. Some researchers relate this importance to the overall success of a destination in tourism (Chen & Kerstetter 1999; Crompton 1979; Dadgostar & Isotalo 1992; Hunt 1975). Some researchers attribute destination image's importance to its effects on supply side aspects, namely, marketing related variables, such as positioning and promotion (Baloglu & Brinberg 1997; Baloglu & McCleary 1999; Calantone, Benedetto, Hakam, & Bojanic 1989; Chen & Kerstetter 1999; Fridgen 1987; Walmsley & Young 1998). Still others relate the importance of destination image to its effect on

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demand side aspects, such as tourist behavior, especially decision-making (Alhemoud & Armstrong 1996; Baloglu & Brinberg 1997; Bramwell & Rawding 1996; Chen & Hsu 2000; Chen & Kerstetter 1999; Coshall 2000; Crompton 1979; Dadgostar & Isotalo 1992; Dann 1996; Fakeye & Crompton 1991; Gartner 1993; Goodrich 1978a; Hunt 1975; Fridgen 1987; MacKay & Fesenmaier 1997; Mayo 1973; Mayo & Jarvis 1981; Tapachai & Wariszak 2000; Walmsley & Young 1998).

Destination image researchers have postulated that destination image is related to pre-trip, during and post-trip behavior of tourists, although many of these relationships remain propositional rather than empirical. Some of these pre-visit variables include likelihood and intention to visit, planning time frame, anticipation, and decision-making variables, such as destination choice, time and money to spend. Some of the during trip variables include actual time spent at the destination, tourist enjoyment and satisfaction. Finally, some of the post-trip variables include positive evaluation of the destination, recommending the destination to the others (word-of-mouth), intentions to revisit the destination, and destination loyalty.

The impact of Destination Image on Pre-Visit Tourist Behavior Variables

There are empirical findings that reflect on the relationship between destination image and pre-visit variables. Chen and Hsu (2000) surveyed Koreans traveling to overseas destinations at an international airport when they were about to depart, and they found a significant relationship between the 'low travel cost' dimension and tourists' trip planning time frames (i.e., how far ahead they start planning for the trip). Studying the image of rural Pennsylvania held by university students, Chen and Kerstetter (1999)

found that respondents with intentions to travel to rural areas within 12 months were more likely to have positive images of 'tourism infrastructure' and 'natural amenity' image dimensions than those respondents who did not intend to visit the area. Similarly, Court and Lupton (1997), studying US respondents' image of New Mexico, found that certain dimensions positively influenced the likelihood of visiting New Mexico; 'natural and cultural amenities' and 'participative recreational opportunities' increased the likelihood of visiting the state.

Chen and Hsu (2000) also revealed that respondents who scored high on the 'many interesting places to visit' image dimension planned to spend much less time at their destination than those who scored higher. They suggested that those who could not spend enough time at the destination to enjoy all of its touristic opportunities might have felt that there were more things to see and do, while those with an ample amount of time might not have felt that way. On the other hand, those visitors who scored high on the 'similar lifestyles' image dimension planned to spend more time than those who scored low on that dimension. They concluded that those who perceived the destination as offering lifestyles similar to their own might have felt confident enough to plan to stay longer than those who did not think so.

Chen and Hsu (2000) also found that Korean travelers' images of overseas destinations in terms of 'similar lifestyles', along with 'plenty of quality restaurants', and 'no language barriers' affected their budgeted travel costs. Those visitors who rated a destination high on 'similar lifestyles' and 'no language barriers' planned to spend more money than those who rated these image dimensions low; they concluded that this could be due to their level of comfort when dealing with the businesses at a place with no

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language barriers. However, surprisingly, the effect of the 'plenty of quality restaurants' dimension on the budgeted travel cost was negative. They suggested that those respondents with limited budgets might have paid more attention to this dimension than the others did.

The literature on the relationship between destination image and anticipation is mostly propositional. Researchers have proposed that the image of a destination gives a potential tourist a special type of trial, a pre-taste, by representing the objective reality of the destination (Chen & Kerstetter 1999; Fakeye & Crompton 1991). Depending on this representation, tourists generate expectations about what their travel experience will be at that destination (Britton 1979; Coshall 2000; Fridgen 1987). Such expectations may also determine their travel choices about the destination, as well as the level of satisfaction they derive from visiting (Coshall 2000).

Destination choice is one of the most often mentioned pre-trip variables in discussions of the importance of destination image. Although the literature on the effect of image on consumers' destination choices remains propositional, there is a consensus among researchers that destination image influences tourists' travel destination choices (Ahmed 1996; Alhemoud & Armstrong 1996; Bojanic 1991; Bramwell & Rawding 1996; Britton 1979; Chen & Kerstetter 1999; Coshall 2000; Court & Lupton 1997; Dann 1996; Embacher & Buttle 1989; Fakeye & Crompton 1991; Fridgen 1987; Gartner 1989; Gartner 1993; Goodrich 1978a; Hunt 1975; Joppe, Martin, & Waalen 2001; Mayo 1973; Mayo & Jarvis 1981; Milman & Pizam 1995; Murphy 1999; Tapachai & Wariszak 2000). It is postulated that image represents the destination in people's minds whether it be based on reality or not, and affects consumers decisions most of the time since consumers

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usually have a limited knowledge of destinations based on experience and objective reality (Alhemoud & Armstrong 1996; Chen & Kerstetter 1999; Crompton 1979; Fakeye & Crompton 1991; Gartner 1989; Gartner 1993; Goodrich 1978a; Hunt 1975; Tapachai & Wariszak 2000).

Some researchers relate consumers' destination choices to their positive overall images of destinations (Chen & Kerstetter 1999; Milman & Pizam 1995). Chen and Kerstetter (1999) postulate that tourists would choose a destination over others only when its positive image aspects exceed its negative image aspects. Ahmed (1996), on the other hand, states that for a destination to be chosen, it should be the least likely to have negative consequences among other choices. Some researchers state that the destination's image must be not only positive but also strong to be chosen by travelers (Alhemoud & Armstrong 1996; Hunt 1975; Ross 1993). Yet, another proposition is that destinations should have distinctive images suggesting features different from tourists' everyday life experiences in order to be appealing to the tourists and to be chosen for their travel (Bramwell & Rawding 1996).

Dubbing the image construct as a 'conceptual appeal', Hunt (1975) proposes that destination image dimensions pertaining to resident population, natural environment, and climate might be more influential than recreational attractions and activities dimensions on tourists' destination choices. Hunt also implies that destinations with grossly exotic images may not be chosen since such qualities might prove discomforting to potential travelers. Hunt's proposition is supported by findings of MacKay and Fesenmaier (1997), who revealed that visuals depicting destinations with unique features caused anxiety in subjects.

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Other researchers base tourists' destination choices on their needs and wants (Joppe, Martin, & Waalen 2001) and benefits that the destination is believed to offer (Gartner 1989; Tapachai & Wariszak 2000). Specifically, Gartner stresses that the destination choice depends on a "benefit package, unique to the destination, expected to provide the greatest intrinsic reward to the traveler" which is derived from the image of the destination (1989, p. 16).

The impact of Destination Image on During Visit Tourist Behavior Variables

There are empirical findings on the impact of destination image on some during visit tourist behaviors. Dadgostar and Isotalo (1992) found a moderate effect of image along with distance, income, age and importance of cost on the length of time spent in pursuit of recreational activities by tourists at near-home city destinations. Ross (1993) found a relationship between backpacker visitors' level of enjoyment and their images of the Wet Tropics region of Northern Australia in terms of dimensions of 'authenticity', 'variance in physical environment', and 'friendliness of local residents' dimensions. Visitors who rated these dimensions more positively also reported higher levels of enjoyment than expected on their trip than those who rated these dimensions less positively. Dimensions of 'tourist information' and 'suitable accommodation' were not found to be related to tourists' levels of enjoyment. Ross suggested that 'authenticity', 'variance in physical environment', and 'friendliness of local residents' might be outstanding destination characteristics influencing tourists' levels of enjoyment; whereas, 'tourist information' and 'suitable accommodation' might be taken for granted and be expected to exist in any tourist destination.

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Satisfaction is another during visit variable postulated to be influenced by destination image. Satisfaction with a destination experience depends on the realization of the anticipations and expectations generated based on the image of the destination held prior to visitation; if the destination lives up to these expectations and anticipations, visitors would experience satisfaction, if not, dissatisfaction would occur (Alhemoud & Armstrong 1996; Britton 1979; Fakeye & Crompton 1991; Fridgen 1987; Ross 1993). Fakeye and Crompton (1991) found that the expectations of non-visitors on some destination dimensions exceeded what the actual visitors reported about the Rio Grande Valley, Texas. Knowing that the result is likely to be a dissatisfied visitor whenever expectations exceed performance, they cautioned that dissatisfaction would be likely if these people visited the study destination. However, satisfaction due to realistically positive images or dissatisfaction due to unrealistically positive images has not been documented empirically.

The impact of Destination Image on Post-Visit Tourist Behavior Variables

Ross (1993), studying the backpacker visitors to the Wet Tropics region of Northern Australia, found correlations between some destination image dimensions and respondents' evaluative responses. Those backpackers who scored high on 'friendly local residents', 'varied physical environment', and 'the authenticity of the destination' dimensions were more likely to rate the destination as an ideal holiday destination and recommend it to their family and friends. Ross also found that, if visitors had a positive image of destination in terms of the 'friendly locals' dimension, they were more likely to intend to revisit the destination. Other researchers have postulated that some dimensions,

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such as 'different cultural experience' and 'convenient transportation' are significantly related to destination loyalty (cf. Joppe, Martin, & Waalen 2001, p. 523).

Schroeder (1996) found positive relationships between residents' image of North Dakota and both the likelihood of their recommending it as a travel destination and their support of tourism development. Schroeder also found a relationship between residents' image and their choices of recreation destinations. Residents with positive images reported more trips within their state than those with less positive images, who reported more trips outside their state. Schroeder suggests that improving the residents' image would boost the within-the-state travels of residents.

Determinants of Destination Image

In an effort to help destination authorities who are striving to portray positive images for their destinations, researchers have tried to enhance their understanding of the complex nature of the destination image construct, especially its formation and determinants playing a role in this formation.

Image formation is defined as the construction of a mental representation of a destination on the basis of information cues delivered by the image formation agents selected by the person (Alhemoud & Armstrong 1996; Bramwell & Rawding 1996; Court & Lupton 1997; Gartner 1993). The image construct is purported to include perceptions formed through exposure to commercial or non-commercial information sources (Alhemoud & Armstrong 1996; Bojanic 1991; Court & Lupton 1997; Gartner 1993; Gunn 1972) and through personal experience (Baloglu & Brinberg 1997; Baloglu & McCleary 1999; Chen & Kerstetter 1999; Court & Lupton 1997; Crompton 1979; Dann

1996; Fakeye & Crompton 1991; Fridgen 1987; Hu & Ritchie 1993; MacKay & Fesenmaier 1997; Ross 1993; Walmsley & Young 1998).

MacKay and Fesenmaier contend that destination image is a "composite of individual inputs and marketer inputs" (1997, p. 559). However, other researchers make destination image more than a function of inputs from marketers and individuals. Destination marketers engage in promotional efforts to project positive images or to change a negative image (Bramwell & Rawding 1996; Court & Lupton 1997; MacKay & Fesenmaier 1997; MacKay & Fesenmaier 2000). However, the images projected by destination marketers are not the same as those images received by the targeted markets due to the following factors: (1) the original message can be altered by the very source communicating this message (Bramwell & Rawding 1996), (2) the message can be modified by the perceiver (Court & Lupton 1997), and most important of all, (3) these destination-originated messages are not the only messages reaching the perceivers in the image formation process. It is agreed that information about destination image formation comes from a wider spectrum of sources than those for consumer products or other services (Alhemoud & Armstrong 1996; Echtner & Ritchie 1991; Gartner 1993; Murphy, 1999; Selby & Morgan 1996).

Induced and organic image formation agents are the two main sources of destination image information that have been identified in the destination image literature. Induced agents primarily include promotional materials from the destination, and organic agents are distributed primarily by non-touristic and non-commercial information sources, such as popular culture, education, general media, word-of-mouth from family and friends and actual visitation (Gartner 1993; Gunn 1972). As stated by

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Selby and Morgan (1996), these agents are not mutually exclusive in practice because of the skillful media relations of destination marketers.

Some researchers argue that familiarity with a destination through tourist information (induced agents) plays an important role in tourists' destination preferences (Baloglu 2001; Court & Lupton 1997; Woodside & Lysonski 1989). Court and Lupton (1997) recognize the importance of well-formulated and targeted marketing communication, since, they postulate, tourist information influences tourists' destination choices by generating awareness and interest, which thus stimulates desire which results in action. Nevertheless, Milman and Pizam (1995) argue that awareness by itself may not generate interest and a purchase decision. They purport that awareness means having an image of a destination, which may, at best, result in curiosity to learn more about the destination. Unless the image is positive, visitation will not occur. Similarly, Gartner believes that "awareness implies that an image of the destination exists in the mind(s) of the decision makers," which puts the destination into the 'realizable opportunity set' at the time of the decision making; unless the destination has "a strong image for the types of activities deemed important to the decision making group or individual" the destination will be eliminated from the 'opportunity set' (1993, p. 196). Gartner also postulates that the 'opportunity set' is reduced, step by step, to the 'consideration set', the 'choice set', the 'evoked set', and finally the 'decision set' by evaluating destination attributes in terms of the expected returns, with the affective component of image being operational throughout this evaluation process.

Some of the autonomous agents, namely news articles, educational materials, movies, and popular culture, are postulated to be more influential on destination image

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formation because they have higher credibility and ability to reach mass crowds than does destination-originated information, especially when they depict a dramatic event, such as natural and 'humancaused' disasters (Crompton 1979; Gartner 1993; Gartner & Shen 1992; Alhemoud & Armstrong 1996; Sonmez, Apostolopoulos & Tarlow 1999).

It is also well accepted that induced and organic agents are not the only sources of destination image determinants. The third source of destination image determinants is purported to be the consumers (perceivers) who filter the information from these sources and form images about travel destinations (Bramwell & Rawding 1996; Dann 1996; Gartner 1993). As distinguished by Bramwell and Rawding (1996), a projected image is the combination of messages and impressions created about a destination, while a received image is consumers' unique mental construct or representation of the destination formed through their comprehension, understanding, and interpretation of these messages. Perceivers' sociodemographics, as well as past travel behavior, are assumed to play a role in this image formation process, and therefore, have been investigated in terms of their relationships with destination image, which will be discussed in detail later in this chapter.

Yet, another source of destination image determinants is postulated to be the researcher measuring the image held by the perceivers. Dadgostar and Isotalo (1992) postulate that researchers impact a destination's image by interpreting the data the way they want. This could be a valid statement since different researchers use different methods while measuring destination image, and they might interpret the same data in different ways due to differing backgrounds and personal characteristics.

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Thus, as depicted in Figure 3 in Chapter 1, there are 4 different sources of destination image determinants: (1) commercial information sourcing from the destination, (2) information sourcing from uncontrollable autonomous agents, (3) perceivers' characteristics, including sociodemographics and past travel behavior, and (4) methodological factors that play a role while measuring the image held by the perceivers. Since some sociodemographics, past travel behavior, and a methodological variable are investigated in terms of their influence on destination image in this study, the following section will provide a detailed review of studies dealing with these determinants.

Sociodemographics

Since different people demand and consume different products based on their sociodemographic characteristics, such as age, gender, income, and residence, these variables have been a focus of investigation in academic fields that deal with consumers. These variables have been used as basic segmentation variables in consumer behavior research as well as in tourism research. Several tourism researchers have included sociodemographic characteristics in their studies to explain tourist behavior. Distance (residence) and income have been found to be influential on the consumption of leisure and recreation products (Court & Lupton 1997; Dadgostar & Isotalo 1992). The importance of gender as another demographic variable has also been documented by some tourism researchers (Gentry & Doering 1979; McQueen & Miller 1985; Schul & Crompton 1983; Snepenger, Meged, Snelling, & Worrall 1990; Woodside & Pitts 1976). Travelers' age (Etzel & Woodside 1982; McQueen & Miller 1985; Schul & Crompton 1983), level of education (Schul & Crompton 1983), household size (Court and Lupton

1997), and family life cycle (Bojanic 1992; Dadgostar & Isotalo 1992) are other sociodemographic variables that have been found to explain tourist behavior.

Ashworth (1989) argues that there is a relationship between travelers' characteristics and the images they hold about a destination. Mayo and Jarvis state "no two people see a destination in exactly the same way" (1981, p. 42). Gartner (1993) suggests that choosing the appropriate image formation agents depends on not only destination related variables, but also travel behavior and characteristics of the target market, such as income, age, and education. Hunt (1975), on the other hand, while recognizing the possible effect of distance (residence) on destination image, discounts the importance of socio-economic factors. He accepts the possible systematic exclusion of certain groups in the data he analyzed, yet proposes "brand or product image to be independent of consumer socio economic class" (p. 2).

Some sociodemographic variables have been investigated for their influence on destination image. Results from some of these studies are summarized in Table 1. Some researchers have examined the relationships between the image of a destination and the respondents' distance from this destination, region or origin of residence, and home country. Ahmed examined the differences in image due to distance from a destination, recognizing that there might be "regional differences in taste preferences, value systems, norms, attitudes, states of mind, and sub-cultures" even though both study and sample destinations were within the US (1996, p. 42). Others realized the effect of distance in terms of overall familiarity and knowledge with the destination (Crompton 1979; Goodrich 1978b; Fakeye & Crompton 1991; Hunt 1975; Walmsley & Young 1998).

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Table 1. Results of studies investigating the influence of sociodemographics on destination image.

Researcher(s)	Study Destination(s)	Sample Destination(s)	Influential Variables	Area(s) of Difference(s)
Hunt (1975)	Rocky Mountain states-Colorado, Montana, Utah, Wyoming	US	Distance	Further respondents could not differentiate between areas within study regions as well as closer respondents
Crompton (1979)	Mexico	US	Distance	Further respondents had more favorable images of destination as a vacation destination
Fakeye & Crompton (1991)	Rio Grande Valley in Texas	US	Distance	Infrastructure, food, and friendly people
Ahmed (1996)	Utah	US	Region of residence	Outdoor recreation resources, outdoor recreation activities, culture, liquor laws and overall image
Alhemoud & Armstrong (1996)	Kuwait	Kuwait (residents and foreigners)	Age	Older chose shopping, younger chose nightlife
			Distance	Foreigners chose cultural attractions, local students chose manufactured attractions
			Religion	Foreigners were not aware of national Islamic Museum
Walmsley & Young (1998)	Local attractions in Sydney, US, UK, New Zealand, Bali, Hong Kong, Singapore, Fiji, Thailand	Sydney/ Australia	Residence/ Distance	Evaluative schema fit international destinations but not local
Chen & Kerstetter (1999)	Pennsylvania, US	US	Gender	Tourism infrastructure, natural amenity
			Household status	Tourism infrastructure, natural amenity
			Education	Natural amenity
			Home country	Tourism infrastructure, atmosphere, natural amenity, farm life
MacKay & Fesenmaier (2000)	Alberta, Canada.	US and Taiwan	Home country	Number and interpretation of dimensions
MacKay & Fesenmaier (1997)	Riding Mountain National Park, Manitoba/Canada	Canada	Age	No difference
			Marital status	No difference
			Gender	Holiday, atmosphere
			Income	Holiday and activity
Joppe, Martin, & Waalen (2001)	Toronto	Visitors	Home country	Attributes seen as important and levels of satisfaction
Smith and MacKay (2001)	Pictures of various destinations	Canada	Age	No difference in memory of visual stimuli

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Walmsley and Young predict that local images are based on personal experience and knowledge through "long-term assimilation of place-related information gleaned from a variety of everyday sources" while international images are more likely to develop through induced information agents (1998, p. 66). They found that their proposed common schema for evaluating places fit international destination evaluations but not local ones, implying that local level images are based on intimate factors rather than promotional materials.

Chen and Kerstetter (1999) and Joppe, Martin, and Waalen (2001) tested the influence of respondents' home countries on destination image and found significant differences among respondents from different countries. Alhemoud and Armstrong (1996) identified image differences between locals and foreigners. It should be noted, however, that the foreigner population resided in the study destination. MacKay and Fesenmaier (2000) also investigated the effect of home countries on destination image by using visual representation without the name of the destination; they found differences between the US and Taiwanese respondents in terms of the number of underlying dimensions they identified and their interpretations of these dimensions. Thus, they cautioned against using the same visuals consistently across different and culturally distinctive segments. Yong and Gartner (in press) studied the perceptions of Seoul, Korea held by Japanese, North American and European business and pleasure travelers by intercepting them at the international airport in Seoul between May and August 2000. They found significant differences across respondents' nationalities after controlling for gender, income, and prior visitation to the destination.

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Other sociodemographic variables studied in terms of their influence on destination image include, age, gender, household status, marital status, education, and income. Chen and Kerstetter (1999) found an influence of education on the 'natural amenity' image factor of Pennsylvania. Baloglu (2001) has suggested that age and education influence destination image by interacting with familiarity. He investigated both main and interaction effects of these variables for their influence not only on cognitive but also affective and overall images of Turkey. He found only the main effect of age on the 'attractions' dimension. Recognizing the limitations of his study in terms of demographic profiles of respondents, he recommended future research on the issue. Alhemoud and Armstrong (1996) also found differences between old and young respondents while MacKay and Fesenmaier (1997) did not find any influence of age on destination image.

Chen and Kerstetter (1999) and MacKay and Fesenmaier (1997) found differences between male and female respondents in terms of some image factors and dimensions. Another sociodemographic variable found to be influential by MacKay and Fesenmaier (1997) was income; depending on their income level, respondents had different perceptions of Riding Mountain National park in terms of 'holiday' and 'activity' image factors. Their findings were not significant for the marital status variable. Chen and Kerstetter (1999) found an influence of respondents' household status on destination image.

Past Travel Behavior

The effect of past travel behavior on destination image is one of the most discussed and tested aspects of destination image formation. The following section contains a discussion of previous studies of the influence of past travel behavior including: the amount of overall travel experience, prior visitation to the study destination, the amount of prior visitation to a destination, the length of stay at a destination, the number of activities participated in while at a destination, and the season of the visit.

Overall Travel Experience

The impact of the amount of overall travel experience has not been studied directly; however, implications of its role can be drawn from the existing destination image literature. While studying residents' image of North Dakota, Schroeder (1996) found a relationship between destination image and the extent of residents' travel experience within their state. Residents who reported more out-of-state trips had less positive images of North Dakota than those who reported more within-the-state trips. Schroeder (1996) interpreted this finding as an effect of image rather than as a determinant of image. In other words, he thought that those residents who had more out-of-state trips did not travel within their state because of their poor images of North Dakota. Therefore, recognizing that causality was not demonstrated, he suggests that improving residents' image would increase within-the-state travel of residents (p. 73). However, this finding could also be interpreted as evidence for overall travel experience being a possible determinant of destination image. Respondents with a narrow range of

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destination experiences might have a narrow point of reference, thus, comparing their state more positively, while respondents with more diverse destination experiences might have rated the state poorly, by comparing it with more popular tourist destinations they have visited. Tourists who travel widely are more aware of what is available; also, they could come to a point of saturation in terms of their perception of destinations as desirable as they get more experience.

Prior Visitation

The impact of actual visitation is also a widely discussed and studied aspect of destination image. Results from some of these studies are summarized in Table 2. However, studies of the influence of previous visitation have arrived at different results. Hunt (1975) and Chen and Kerstetter (1999) did not find significant differences between images of visitors and non-visitors. Crompton (1979), on the other hand, found that distant respondents rated Mexico more favorably as a vacation destination than did respondents living in border communities. In a different study, Fakeye and Crompton suggested that the reason for such differences to be due to "shallowness of much of the contact between tourists and local culture...that is 'pseudo-experience'" (1991, p.11). Fakeye and Crompton (1991) compared the images of first-time visitors, repeat visitors, and non-visitors, and found image differences between visitors and non-visitors; non-visitors had better images on two and worse images on three of five image factors of the Rio Grande Valley in Texas.

Table 2. Results of studies investigating the influence of prior visitation on destination image.

Researcher(s)	Study Destination(s)	Sample Destination(s)	Differences Between Visitors & Non-visitors
Crompton (1979)	Mexico	US	Different regions on different dimensions
Fakeye & Crompton (1991)	Rio Grande Valley in Texas	US	Social opportunities and attractions, natural and cultural amenities, accommodations and transportation, infrastructure foods and friendly people, bars and evening entertainment
Hu & Ritchie (1993)	Hawaii, Greece, Australia, France, China	Canada	Different dimensions for different countries in different contexts
Ahmed (1996)	Utah	US	Outdoor recreation resources, culture, nightlife and liquor laws, overall image
Milman & Pizam (1995)	Central Florida	US	Several product, and environment-related dimensions
Selby & Morgan (1996)	A seaside resort in Barry Island/ South Wales	Visitors to surrounding area	Prejudice in cleanliness
Baloglu & McCleary (1999)	Turkey, Egypt, Greece, Italy	US	Several dimensions, more differences in affective dimensions
Chen & Kerstetter (1999)	Pennsylvania, US	US	No difference
MacKay & Fesenmaier (1997)	Riding Mountain National Park, Manitoba/Canada	Canada	Activity, familiarity, holiday, atmosphere Familiars evaluated visuals affectively, unfamiliars cognitively

Some researchers have found the effect of visitation on different components of image. Both Baloglu (2001) and Baloglu and McCleary (1999) found differences between visitors and non-visitors in terms of cognitive and affective image components and overall image. Baloglu and McCleary (1999) compared the images of four

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Mediterranean countries and concluded that visitation altered all components of the image of these destinations although they did not test for the significance of the differences between visitors and non-visitors. Baloglu (2001) found that respondents who visited Turkey had more positive responses for all components of image than those who did not. Ahmed (1996) also found differences in overall images of visitors and non-visitors. Likewise, MacKay and Fesenmaier (1997) have found differences between the responses of the familiar and unfamiliar respondents among focus group participants. Familiar respondents, being able "to see and project beyond the visual stimuli (actual picture)..., provided more affective and emotional descriptions" (p. 558).

Most of the studies investigating the impact of visitation on destination image have used mixed samples including both visitors and non-visitors and have noted differences between the images of these two groups. A few other studies have used longitudinal data with pre-trip, during trip, and/or post-trip measurements of destination image on the same sample (Dann 1996; Pearce 1982; Phelps 1986; Vogt & Andereck, in press; Vogt & Stewart 1998). Pearce (1982) compared pre-trip and post-trip images of travelers to two Mediterranean countries and found image change for both countries. Phelps (1986) has also found variations between the pre and post-trip images of travelers.

Dann (1996) measured pre-trip and during-trip images of travelers to Barbados and found differences for both cognitive and affective components of image as well as overall image. Vogt and Andereck (in press) studied the pre-trip, during-trip, and post-trip images of motorist travelers to Arizona; they found increases in both the cognitive component (knowledge level) and the affective component (desirability level) of image as the trip progressed. The differences between these three level images (pre-trip, during

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and post-trip) were significant for the cognitive component but not for the affective component. They postulated that the affective component did not change much, maybe due to high destination desirability felt by the travelers at the onset of a trip. Vogt and Stewart (1998) also found similar results.

In spite of the variation across results of different studies, it is well-accepted among destination image researchers that visiting a destination results in more realistic images of it due to first hand experience. Some researchers have tried to distinguish between images prior to and after visitation by coining different terminology for them as can be seen in Table 3.

Table 3. Different terminology provided for images prior to and after actual visitation.

Researcher(s)	Image before visitation	Image after visitation
Gunn (1972) and Gartner (1993)	Induced	Organic
Goodrich (1978)	Secondary	Primary
Fakeye & Crompton (1991)	Organic & Induced	Complex
Ross (1993)	Ideal	Actual
Selby & Morgan (1996)	Naïve	Re-evaluated

Although Gunn (1972) and Gartner (1993) considered image through visitation as organic, many others considered image through visitation as a separate type of image since it includes perception of the actual product (Alhemoud & Armstrong 1996; Crompton 1979; Fakeye & Crompton 1991; MacKay & Fesenmaier 1997; Selby & Morgan 1996). Fakeye and Crompton (1991) separated this type of image from Gunn's organic image, and deemed it to be a third level, or 'complex' image. They assert that it is complex because it allows a more differentiated outlook and truer comprehension of the destination rather than simple stereotyping, especially if the visitor spends "enough time there to be exposed to the destination's varying dimensions through developing contacts and establishing relationships" (p. 11). Their assertion has also been widely accepted by

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other researchers (Chen & Hsu 2000; Chen & Kerstetter 1999; Lubbe 1998; MacKay & Fesenmaier 1997; Milman & Pizam 1995).

Realizing the impact of actual visitation on destination image, Milman and Pizam (1995) recommend the use of different promotional tactics to induce visitation, which would be beneficial especially for the destinations with unrealistically negative images. Fakeye and Crompton (1991) provide similar recommendations to induce visitation of segments with different previous experiences. Ahmed (1996) suggests segmentation based on visitors and non-visitors to develop appropriate positioning and promotion strategies.

Visitation-Related Variables

Not only visitation itself, but also some visitation-related variables have been investigated for their influence on destination image. The frequency of prior visitation (Baloglu 2001; Fakeye & Crompton 1991; Schroeder 1996; Vogt & Andereck, in press) and the length of stay (Fakeye & Crompton 1991; Vogt and Andereck, in press) exemplify some of the visitation-related variables that have been investigated. Although the number of activities and the season of visitation have not been studied directly by destination image researchers, there are implications about the impact of these variables on destination image within the existing destination image literature.

The Frequency of Prior Visitation

While comparing visitors' and non-visitors' images of four Mediterranean destinations, Baloglu and McCleary (1999) deleted multiple visit respondents from the

analysis since they believed that multiple visits would play an important role in evaluations of a destination. Baloglu (2001) found an effect of the amount of prior visitation on the affective component of image; respondents who had multiple visits to Turkey had different image ratings from the others, including both visitors and non-visitors. Multiple visit respondents gave higher ratings to 'the quality of experience' and 'relaxing' image dimensions as well as the overall image. Yong and Gartner (in press) compared the images of Seoul, Korea held by business and pleasure travelers from Japan, North America and Europe; they found that Japanese business travelers, who had the most experience with Seoul, were more interested in functional attributes of Seoul, attributes that made their trips routine, safe and productive rather than exciting and adventurous. They concluded that as the amount of experience increases, a strong organic image resistant to change forms; and, in this process, the features of the destination become more tangible.

While comparing the images of non-visitors, first-time visitors and repeat visitors of the Rio Grande Valley in Texas, Fakeye and Crompton (1991) did not find such differences between first time and repeat visitors and concluded that the majority of the change in destination image occurs during the first visit, leaving little alterations for the following visits. Their conclusion was supported by the results of Vogt and Andereck (in press), who studied during-trip image change of Arizona travelers, and found that the image change was larger for the first-time visitors than for repeat visitors. Schroeder (1996) also found that residents with more positive images reported more trips within North Dakota than those with less positive images who reported more trips outside their state.

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The Length of Stay

Another visitation-related variable studied by destination image researchers is the length of stay (Fakeye & Crompton 1991; Vogt and Andereck, in press). Fakeye and Crompton (1991) found that long stayers (over 8 weeks) rated the Rio Grande Valley better than short stayers (8 weeks or less) on two factors: 'social opportunities and attractions' and 'infrastructure, foods and friendly people'. They concluded that longer stay allows travelers to experience better social integration, thereby providing more realistic images void of stereotypes about these aspects of a destination. Vogt and Andereck (in press) found no significant relationship between the length of stay and the affective component of image; however, the relationship was significant for the cognitive component in an unexpected way. Repeat visitors who had short stays (1-3 days) had greater image change than those who stayed longer (4-7 days or 8-30 days).

The Number of Activities

Ashworth (1989) argues that there is a relationship between images travelers hold about a destination and activities they hope to engage in at the destination. There is a lack of studies investigating the relationship between the activities or the amount of activities visitors participate in at a destination and their images of the destination. However, the findings of Fakeye and Crompton (1991) have implications for such a relationship. They found that both first-time and repeat visitors who stayed longer (over 8 weeks) had better scores for 'social opportunities and attractions' and 'infrastructure, foods and friendly people' factors. It can be postulated that long-stayers must have participated in more activities encompassing the aspects of these factors, such as visiting attractions, attending

events, dining at restaurants, sightseeing, driving for pleasure, etc. In other words, the longer visitors stay, the more things they do, thus, the more differentiated images they have.

The Season of the Visit

As was mentioned before, there is a lack of focus on the relationship between image of a destination held by visitors and the season of their visit to the destination. However, there is an implication for the impact of this variable in Gartner's (1986) study, in which he investigates the temporal influences on destination image. He stresses that tourism is both seasonal and depends on the environment, and he contends that the seasons of participating in an activity at a destination might influence the image of this activity.

Methodological Factors

The methodology literature suggests that, based on their sociodemographic characteristics, research subjects' responsiveness and truthfulness are affected by methodological factors, such as research techniques, data collection modes, and forms of questions; such effects are reported to be more significant when trying to discover or describe attitudes, especially consumer attitudes or socially stigmatized behaviors, such as drug or alcohol use (Aquilino 1994; Churchill & Peter 1984; Ervin & Gilmore 1999; Gazel, Schwer, & Daneshvary 1998; Grube 1997; Herzog Rodgers, & Kulka 1983; Kaye & Johnson 1999; Krysan, Schuman, Scott, & Beatty 1994; McAuliffe, Geller, LaBrie, Paletz, & Fournier 1998; Rockwood, Sangster, & Dillman 1997; Sniderman & Grob

1996; Sudman & Bradburn 1973; Turner, Ku, & Rogers 1998; Wright, Aquilino, & Supple 1998).

Few destination image researchers have touched upon the impact of methodological factors on destination image. Dadgostar and Isotalo (1992) realized the impact of the researcher through subjective data interpretation. Recognizing the multicomponent nature of the destination image construct, Echtner and Ritchie (1993) recommended the use of a multimethod approach, in which a comprehensive list of structured and open-ended questions would be used not only in the scale development stage but also the data collection stage. Several researchers have followed their recommendations and incorporated qualitative techniques in their research (Bramwell & Rawding, 1996; Choi, Chan, & Wu, 1999; Dann, 1996; Joppe, Martin, & Waalen, 2001; Lubbe, 1998; MacKay & Fesenmaier, 1997; Milman & Pizam, 1995; Murphy, 1999; Selby & Morgan, 1996; Tapachai & Waryszak, 2000). Some researchers have also tested the applicability of new data analysis tools on destination image research, such as Multidimensional Scaling (Goodrich 1978b; Gartner 1989; MacKay and Fesenmaier 2000), Repertory Grid Analysis (Embacher and Buttle 1989), and Correspondence Analysis (Calantone, et al. 1989).

However, there is a lack of empirical studies testing the influence of such methodological factors on the findings of destination image research. Gartner (1986) attempted to investigate the impact of timing of the survey on destination image. He recognizes possible temporal fluctuations in the destination image construct due to the seasonality aspect of tourism, which, he cautions, could result in a bias in the product's positioning. He also realizes that this possibility is commonly ignored by researchers. He

surveyed a stratified random sample of US households about their impressions of activities and attractions in Colorado, Montana, Utah, and Wyoming; the same research was conducted twice within a four-month interval. Of the 52 comparative analyses between two time periods and four states, only two resulted in significance. In the second-wave survey, Utah was rated more impressive than others in the 'nightlife' attribute and Wyoming was rated more impressive than others on the 'boating' activity. He speculated that a strong brand image might be rendering temporal fluctuations unimportant while cautioning about the short time interval of the research design and recommending further investigation of this subject matter.

Computer Assisted Telephone Interviewing (CATI)

CATI has been used as a data collection mode since the early 1970s (Fink 1983). In this system, telephone numbers are stored in a computer and the computer is programmed to select and dial a number either randomly or in an order (Babbie 1998). The numbers are generated randomly to avoid the sampling bias due to unlisted numbers (Babbie 1998). The questions are usually programmed in such a way to account for the skip patterns in a questionnaire; that is, the appropriate questions are selected by the computer rather than the interviewer (Babbie 1998). Once the interview is completed, the data are stored in a data file, ready for cleaning and analysis; in other words, no data entry is involved (Babbie 1998).

Some CATI software programs have systems that enable much of the work to be done electronically, such as questionnaire writing, call management, quota controlling, call disposition monitoring, interviewer assistance, reporting, and analysis (Churchill

1999). Thus, CATI has advantages over traditional survey techniques, such as low cost, wide distribution, higher response rates, less-interviewer-related bias, fast and easier questionnaire completion, and easier follow up (Churchill 1999). However, it also has disadvantages, such as inability to use visual aids, difficulty in developing rapport with the respondents, difficulty in handling long questionnaires, and difficulty in respondent screening (Churchill 1999).

In spite of random digit dialing (RDD), sampling bias is purported to be possible in CATI surveys. McAuliffe, Geller, LaBrie, Paletz, and Fournier (1998) suggest that telephone surveys reveal more precise estimates (due to random digit dialing) than face-to-face surveys based on the same number of interviews. However, they also purport that telephone surveys reveal less accurate data than face-to-face interviewing due to the systematic exclusion of people who live in households without telephones, and lower response rates. Herzog, Rodgers, and Kulka (1983) found that telephone surveys have a tendency to underrepresent older adults who are less likely to participate in a telephone survey even though they are more likely to have a telephone than younger adults.

Aquilino and Lo Sciuto (1990) revealed that the telephone survey with RDD had high response rates but also exhibit a bias towards higher socioeconomic status with higher income, education, and likelihood to be married and employed especially among the black group; this effect of the survey mode was not this significant for whites. Sniderman and Grob (1996) also found that mode effects were stronger for minorities than whites, and the amount of mode effect was larger for blacks than for whites. Aquilino conducted a field experiment to measure "the impact of interview mode on respondents' willingness to reveal sensitive or socially undesirable information" (1994, p.

211). The researcher compared three interview modes: (1) self-administered questionnaires, (2) interviewer-administered in-person interviews, and (3) telephone interviews. The researcher found that since telephone interviewing provided the least amount of anonymity, it decreased respondents' willingness to reveal sensitive information.

Factor Analysis

Factor analysis facilitates the summarizing or reducing of many variables into fewer manageable factors by identifying the underlying structure among variables and grouping correlated variables together (Babbie 1998; Churchill 1990; Fraenkel & Wallen 1996; Hair, Anderson, Tatham, & Black 1998). In data summarization, factor analysis identifies relationships among a group of variables or respondents; while in data reduction, it identifies a few underlying factors to be substituted for a larger number of original variables and used as input variables in further multivariate analyses (Hair et al. 1998). It is different from regression analysis since it tries to provide the maximum explanation for the variables rather than predict a criterion variable (Hair et al. 1998). Thus, a high level of correlation between variables, greater than 0.30, is desired in factor analysis, while high correlation can cause unstable matrix inversion in regression analysis (Hair et al. 1998).

Factor analysis can be performed in an exploratory or a confirmatory approach. In the exploratory approach, the researcher explores the data without any preconceived theories about the underlying structure of the data; while in the confirmatory approach,

the researcher has preconceived hypotheses about the number and type of underlying factors in the data and tests for these hypotheses (Hair et al. 1998).

Factor analysis applies two types of analysis, common and component. Common factor analysis identifies the common features shared by the entire variable set while the component analysis (principal component analysis) summarizes the maximum amount of original information in the entire set of variables (measured as variance) through a minimum number of factors possible (Hair et al. 1998). In principal component analysis, the first factor extracted explains the largest amount of variance in the original variables and following factors explain smaller and smaller amounts of variance (Afifi 1984, Hair et al. 1998). Thus, the initial (unrotated) factor solution reveals the best linear combination of the variables; the first factor is the best summary of these relationships since it has the highest variance of the original variables (Hair et al. 1998). The second factor has to be orthogonal to the first factor, so it is extracted from the variance leftover after the first factor is extracted, and so on (Hair et al. 1998).

The initial unrotated solution achieves data reduction but may not enable adequate interpretation since the factor loadings it provides (the correlations between individual variables to their underlying factor) may not have a meaningful pattern (Hair et al. 1998). Therefore, the factors must be rotated (usually orthogonally, at 90 degrees) to retain more meaningful and simpler factor solutions; during this rotation, the variances are redistributed between the factors, thus reducing ambiguities of the initial factor solution (Hair et al. 1998). The Varimax rotation is commonly used since it restricts the factors to being uncorrelated by forcing the factor loadings to approach the limits of 0 and ± 1 as closely as possible (Hair et al. 1998). Variables with high loadings (i.e. close to $\pm$ 1)

indicate a good correlation, positive or negative, between an individual variable and the corresponding factor (Hair et al. 1998).

As a rule of thumb, variable loadings of $\pm$ 0.50 are considered as practically significant to be kept in a factor although it can be smaller depending on the sample size (Hair et al. 1998). The factors are interpreted by looking at the variables with the highest loadings since they have the highest correlation with the factor (Hair et al. 1998).

In deciding the number of factors, researchers most commonly use the 'latent root criterion' in which the factors with latent roots (Eigenvalues greater than 1) are kept since they explain the variance of at least one variable included in that factor (Aaker 1981; Bernstein 1988; Hair et al. 1998). The internal stability of each factor is determined by using the Cronbach's alpha; usually a Cronbach's alpha of 0.70 is considered as substantially stable (Hair et al. 1998).

Upon determining the number of factors to be retained, factor scores (a composite measure of all variables included in the factor) are calculated for each factor and for each case (Hair et al. 1998). The function of factor scoring is to mark the relative position of each individual on each factor (Rossi, Wright, & Anderson 1983). This is similar to score standardization in which the original scores are transformed into a new set of scores with a mean of 0 and variance of 1. (See Fakeye and Crompton (1991) and Court and Lupton (1997) for a discussion of this method.) Eventually, these factor scores are used as new input variables in further analyses (Hair et al. 1998).

Hair et al. (1998) recognize that factor stability depends on the sample size and the number of cases for each variable included in the factor; they recommend the use of the largest samples possible for developing parsimonious factor models. They also

recommend a check on the robustness of the factor solution by splitting the sample randomly into two subsets and applying factor analysis on each (Hair et al. 1998).

Factor analysis is criticized by some researchers for it can produce meaningless factors by putting disparate variables together, and it does not involve statistical tests, thus rendering the hypotheses useless (Babbie 1998).

Regression Analysis

Regression analysis is used to explain or predict human-related phenomena and their likely outcomes by identifying the existing relationships among certain variables (Fraenkel & Wallen 1996; Hair et al. 1998; Hamilton 1992). If a substantial relationship exists, it is then possible to predict the value of a dependent variable (criterion variable) when the value of the independent variable (predictor variable) is known, and vice versa (Babbie 1998; Fraenkel & Wallen 1996; Hair et al. 1998; Hamilton 1992; Pindyck & Rubinfeld 1981). The basic mathematical description of this relationship is:

$$Y = \beta X + \varepsilon$$

where, Y is a random variable (stochastic), β is the estimated coefficient, X is fixed (nonstochastic) variable, and ε is a random error term (Hair et al. 1998; Hamilton 1992; Pindyck & Rubinfeld 1981). Error terms (residuals or prediction error) are the differences between the predicted values and actual values of the dependent variable, which may arise from several factors in the research process; error terms are assumed to be uncorrelated, normally distributed with a zero expected value and constant variance (homoscedasticity) for all observations (Hair et al. 1998; Hamilton 1992; Pindyck & Rubinfeld 1981).

Ordinary Least Squares (OLS) is a widely used regression method of fitting linear models to data (Hamilton 1992; Pindyck & Rubinfeld 1981). It includes "a system of techniques for describing sample data and extending conclusions to a larger population" (Hamilton 1992, p. 30). The least squares criterion in regression creates a 'line of best fit' by minimizing the sum of squared distances between the actual data point and the estimated data point on the straight line hypothetically drawn among the actual data points (Hamilton 1992; Pindyck & Rubinfeld 1981). This criterion allows estimation of "regression parameters, which are best linear unbiased and (under some conditions) maximum likelihood"; however, it is sensitive to outliers in the data (Pindyck & Rubinfeld 1981, p. 4).

In social research, a criterion variable is usually influenced by several predictor variables (Babbie 1998). Inclusion of more variables in the prediction must cause smaller errors of prediction since more explanatory information is fed into the prediction (Fraenkel & Wallen 1996). When more than one predictor variable is included in the estimation, then it becomes multiple regression, in which the criterion variable is being predicted by using "the best combination of two or more predictor variables" (Fraenkel & Wallen 1996, p. 313).

Regression is different from correlation for several reasons. First, regression involves an assumption of causality between variables while correlation primarily measures the degree of linear association between two variables (Pindyck & Rubinfeld 1981). In regression, the dependent variable is assumed to be random (stochastic) with a probability distribution while independent variables are assumed to have fixed values (nonstochastic) if measured repeatedly (Pindyck & Rubinfeld 1981). There is no such

distinction in correlation, and both variables are assumed to be random (Pindyck & Rubinfeld 1981).

Regression analysis involves some assumptions, or more precisely requirements, namely, simple random sampling, no nonsampling errors, and continuous interval data. Since these requirements are rarely satisfied in social research, interpretation of the results of regression analysis should be done cautiously (Babbie 1998). More specifically, excluded variables, nonlinear relationships between dependent and independent variables, error terms with a nonconstant variance, correlated and nonnormal error terms, and outliers in the data are some regression assumptions and factors to which regression analysis is sensitive (Hair et al. 1998; Hamilton 1992; Pindyck & Rubinfeld 1981). Violation of these assumptions and/or overlooking the factors to which regression analysis is sensitive can render the results of a regression biased or invalid.

Normality is a fundamental assumption in multivariate analysis since it is required to use t and *f* statistics; violation of this assumption would render the results of statistical tests invalid (Hair et al. 1998). Therefore, visual checks, such as histograms and normal probability plots along with statistical tests, such as the Shapiro-Wilks test and Kolmogorov-Smirnov test are used to make sure this assumption is not violated in the data (Hair et al. 1998). Various data transformation methods, such as square root and logarithm are employed to remedy the problem of nonnormality in the data; these techniques also can remedy the problem of heteroscedasticity, in which the variance of the dependent variable concentrates in only a few independent variables (Hair et al. 1998).

The Central Limit Theorem is postulated to protect against the failure of normality in sampling distributions of large samples (Hamilton 1992; Pindyck & Rubinfeld 1981). According to this theorem,

> a. the sampling distribution of the mean becomes approximately normal, regardless of the shape of the variable's frequency distribution.
> b. the sampling distribution will be centered around the variable's population mean μ.
> c. the standard deviation of the sampling distribution, called its standard error, approaches $\sigma/\sqrt{n}$, the variable's population standard deviation divided by the square root of the sample size (Hamilton 1992, p. 27).

In other words, as sample size gets larger, the sample more closely resembles the study population, thus rendering the results of the statistical tests accurate or valid even if the normality assumption is violated (Hamilton 1992; Pindyck & Rubinfeld 1981). However, very large samples (1,000 or more observations) may result in statistical significance for any relationship test, thus researchers should use 'criterion of practical significance' in this case (Hair et al. 1998, p. 165).

The use of continuous variables is a requirement for regression analysis, but, in many cases, categorical variables, such as respondents' gender are relevant to the analysis; in these cases, the categorical variables are incorporated into analysis using replacement variables called dummy variables with the dichotomy of 0 and 1 (Hair et al. 1998). For a variable with n categories, n-1 dummy variables are created and incorporated in the regression model to avoid the singularity problem (Hair et al. 1998).

Hypothesis Test

Coefficients (b) are the estimates derived from the sample for the population parameters concerning the independent variables (Pindyck & Rubinfeld 1981). A positive

estimate indicates a positive relationship between the dependent and independent variables (Hamilton 1992).

Since independent variables are measured in different units, regression coefficients need to be standardized to make it possible to compare the degree of impact of independent variables on the dependent variable. Standardized coefficients (beta coefficients or β) indicate the change in the dependent variable for each unit change in one independent variable when all other independent variables are held constant (Hair et al. 1998; Hamilton 1992). Standardized coefficients (beta coefficients) can be used to make comparisons among independent variables in terms of the magnitude of their effect on the dependent variable (Hair et al. 1998; Hamilton 1992).

Since the predicted values of the dependent variable are different from the real values, researchers also calculate the standard error of estimate, an indicator of prediction error, which provides the likelihood of predicted value's being inaccurate, the bigger the standard error of estimate the more inaccurate the prediction (Fraenkel & Wallen 1996; Hair et al. 1998).

The t-statistic is calculated by dividing a coefficient by its associated standard error and is used to test if a coefficient is significantly different from zero for the whole population, taking the variation in the sample into consideration; in general, a t-test value bigger than two indicates statistical significance; and the greater the value, the more statistically significant the related estimated coefficient (Hamilton 1992; Pindyck & Rubinfeld 1981).

The p-value (α) provides the significance level for the two-way test of a coefficient being different from zero (Pindyck & Rubinfeld 1981). Specifically, it "equals

the estimated probability of obtaining these sample results, or results more favorable to H_1, if the sample were drawn randomly from a population where H_0 is true" (Hamilton 1992, p. 44)

Model fit statistics, namely, R^2, the *f* statistic, and α (p-value), are calculated as measures of the model fit to the data. These values are used to test the null hypothesis that there is no linear relationship between the dependent variable and the independent variables in the population (Hair et al. 1998; Hamilton 1992; Pindyck & Rubinfeld 1981). In other words, these values are used to test multiple equivalent null hypotheses that all of the population partial regression coefficients are 0, and the population value for multiple R^2 is 0.

The coefficient of determination (r^2 for simple regression and R^2 for multiple regression) is a measure of the goodness of the fit for the regression model; it indicates the percentage of variation in the dependent variable explained by independent variables (explained variance divided by total variance), in other words, the degree of predictability of the dependent variable on the basis of the independent variables (Babbie 1998; Fraenkel & Wallen 1996; Hair et al. 1998; Hamilton 1992; Pindyck & Rubinfeld 1981). The R^2 value ranges between the values of 0 and 1; the closer R^2 to the value of 1, the better the model fits the data (Babbie 1998; Fraenkel & Wallen 1996; Hair et al. 1998; Pindyck & Rubinfeld 1981).

There are some arguments about the use of R^2 as a criterion of goodness of fit. First, selected variables may not be good explanatory variables in the regression equation (Pindyck & Rubinfeld 1981). There might be other more important factors that explain the dependent variable. Second, it is argued in literature that a low R^2 is common in

models of consumer behavior (Court and Lupton, 1997; Bass 1975). Achen (1982) and Court and Lupton (1997) argue that in regression models, the R^2 is not a good indicator of causally strong relationships since the sample is the defining factor of the variances, not the underlying relationship between the variables (Court and Lupton 1997; Achen 1982). Pindyck and Rubinfeld assert that

> (i)n time series studies...one often obtains high values of R^2 simply because any variable growing over time is likely to do a good job of explaining the variation of any other variable growing over time. In cross-section studies, on the other hand, a lower R^2 may occur even if the model is a satisfactory one, because of the large variation across individual units of observation which is inherently present in the data (1981, p. 64).

The *f*-statistic is used to test hypotheses regarding groups of parameters (Hamilton 1992; Pindyck & Rubinfeld 1981). The *f*-statistic is the ratio of two mean squares, the regression mean square and the residual mean square (Hair et al. 1998). Both t and *f* procedures assume errors to be normally distributed (Hair et al. 1998; Hamilton 1992). The numerical distribution of the *f*-statistic is known, and if the calculated *f* is smaller than the critical *f* value, the null hypothesis is accepted (Hair et al. 1998; Pindyck & Rubinfeld 1981). The α (p-value) provides the significance level for the test of multiple regression equation, in other words, the significance level for the one-way test for the null hypothesis that the R^2 is equal to zero (Hair et al. 1998; Pindyck & Rubinfeld 1981).

For validation of the regression model, the split sample technique can be used since it is usually costly to draw a new sample from the population (Hair et al. 1998). In this technique, the original sample is divided into two subsamples, one for estimation of the regression model and one for testing the regression equation (Hair et al. 1998).

Multicollinearity and Singularity

Multicollinearity and singularity are two conditions that can occur in correlation matrices; both of these conditions can render parts of the correlation matrices unstable, which can lead to biased or invalid results (Hair et al. 1998; Pindyck & Rubinfeld 1981). Multicollinearity means a high correlation between two or more variables in a matrix (Hair et al. 1998; Pindyck & Rubinfeld 1981). Singularity occurs when the value of a variable is a linear combination of others (Hair et al. 1998). Despite the differences in the nature of multicollinearity and singularity conditions, they cause similar problems in multivariate analyses, by causing an unstable matrix inversion or termination of the analysis altogether (Hair et al. 1998).

Detection of these conditions is done through the examination of tolerance measures and correlation matrices (Hair et al. 1998). If the correlation matrix reveals high correlations (usually 0.90 and above) between three or more independent variables, it is a sign of multicollinearity (Hair et al. 1998). Tolerance is a statistic used to determine how much the independent variables are in linear relation with one another, that is, multicollinear; in other words, tolerance values are a measure of independence among independent variables (Hair et al. 1998). The tolerance of an independent variable is the proportion of its variability not explained through its linear relationships with one or more of the other independent variables included in the model (Hair et al. 1998). Similar to R^2, its values range between 0 and 1. If the tolerance value of a variable is small, it means it is linearly related to one or more of the other independent variables, thus rendering the data to be multicollinear (Hair et al. 1998). As a rule of thumb, the cutoff for tolerance values is 0.10; variables with tolerance values of less than 0.19 would have

a substantial correlation, a correlation equal to or above 0.90 (Hair et al. 1998). In case of multicollinearity, the researcher can either delete one or more of the correlated independent variables, or proceed with the model for prediction only, without interpreting the coefficients (Hair et al. 1998).

CHAPTER III

METHODS

The goal of this study was to identify the determinants of destination image and develop a parsimonious model of destination image and its determinants. Due to the costly nature of image studies in real life tourism settings, a secondary data set was utilized for the purposes of this study. This chapter delineates the methods used in collecting these data and the procedures followed in conducting the investigation of determinants to destination image formation. The chapter is divided into seven sections: (1) study design, (2) study destination and population, (3) the study instrument including operationalization of concepts, (4) data collection mode and procedures, (5) response rate, (6) data preparation, and (7) data analyses. The first five sections describe the data source, The Michigan Regional Travel Market Survey (MRTMS). Sections 6 and 7 detail the variables included in the image model and analysis procedures, statistics, and computer programs used to test the proposed hypotheses.

Study Design

This is an associational study in which secondary data are used to investigate the existing relationships between destination image and several possible determinant variables. More specifically, it is a causal-comparative study (also referred to as ex post facto); the causes of differences that already exist between or among groups of individuals are to be determined in this study (Fraenkel & Wallen 1996). There is no

attempt to manipulate any variables as in experimental studies; the differences already exist (measured) and the variables cannot be manipulated (such as gender and age).

For the relationship between destination image and respondents' sociodemographic variables, causal direction is clear per se. For example, the image differences between different gender groups must be caused by the gender membership since destination image cannot determine the gender of a person. However, the causal direction between visitation and destination image is not so obvious. Visitation might cause better images of a destination or better images might result in visitation to a destination. Determining this direction would require an experimental design in which subjects' pre and post visitation images are observed and compared.

Several variables, such as visitation itself and other visitation-related variables could have been manipulated to define the causal direction; however, since data from a cross-sectional survey of random samples across several years are used, such manipulation is not possible. Because of the lack of causal direction between destination image and several determinant variables involved in the analyses of this study, this study can also be considered as correlational study, which is also associational in nature (Fraenkel & Wallen 1996).

The data were collected through a quantitative survey design. Specifically, it is a longitudinal household survey conducted since 1996 by the Travel, Tourism & Recreation Resource Center at Michigan State University. The main objective of this survey is to provide Michigan tourism providers and decision makers with timely and accurate data on the status of tourism in Michigan. Initially, the study was funded through Travel Michigan, the state's major public tourism agency conducting tourism promotion

in and for Michigan, the Agricultural Experiment Station at Michigan State University (MSU), and the MSU Office of the Provost. During later years, various sponsors contributed to funding the survey, which was modified to address individual sponsors' data requirements.

Study Destination and Population

As stated before, the main goal of the Michigan Regional Travel Market Survey (MRTMS) has been to provide market intelligence for the tourism industry in Michigan; therefore, its questions pertain to various aspects of travel and tourism in Michigan. The study population is the resident households in Illinois, Indiana, Michigan, Ohio, Wisconsin, and Ontario, Canada (see Figure 6). This region is considered to be the primary market generating tourism in Michigan. The U.S. Census Bureau reported that, in 1995, the five states in this region generated almost 90 % of travelers in Michigan (U.S. Department of Transportation, Bureau of Transportation Statistics, 1995). Minnesota was included in the earlier years of MRTMS, but excluded from the sampling frame beginning in 1999; to achieve comparability across all years, Minnesota respondents were excluded from the dataset for the purposes of this study.

Telephone numbers were purchased from Survey Sampling Inc., which generated a random pool of phone numbers by employing random digit dialing (RDD). Some of these numbers were found to be disconnected, fax numbers or business numbers, and were removed from the sampling frame. Respondents were screened for age since only resident adults, 18 or older, were to be interviewed. To achieve a random sample, the

interviewers asked to speak to the "adult over 17 years old who will have the next birthday."

Figure 6. The study region (sampling frame).

Study Instrument

The questionnaire has been rather lengthy, and its length and content have varied depending on the sponsors and the nature of their interests. It was mainly designed to profile the respondents' most recent pleasure trip within the past 12 months. If this trip was taken to Michigan, this profile also represented the profile of the most recent

pleasure trip to Michigan. If not, the respondents were asked if they took any pleasure trips to Michigan within the past 12 months, and their most recent pleasure trip to Michigan was profiled using the same questions. Thus, if the respondents' most recent pleasure trip was to another destination and they also took a pleasure trip to Michigan within the past 12 months, these respondents were asked the same trip profiling questions twice, first in the "Most Recent Pleasure Trip Block" and then in the "General Michigan Pleasure Trip Block". See Figure 7 and 8 for the flowcharts of the instruments and Appendix A and B for the actual instruments.

Only *pleasure trips* were profiled, which were defined as "any overnight or day trip to a place at least 50 miles from home that was made for enjoyment, including vacations, weekend getaways, shopping trips, trips to a second home, and trips to visit friends or relatives."

The initial version of the survey included 164 questions focusing on promotion awareness of Michigan in comparison with neighboring and competitor states, advertising influence, pleasure trip profile and/or Michigan pleasure trip profile, Michigan image, travel intentions and sociodemographic questions (see Figure 7 and Appendix A).

Later versions comprised 140 individual questions on average, with a core set, including key variables pertaining to pleasure trips, Michigan pleasure trips and demographics, as well as a periodically rotated set of questions. With this rotation, the purpose was to capture trends, for example, trip intentions during major holidays, such as Thanksgiving, and Labor Day (see Figure 8 and Appendix B).

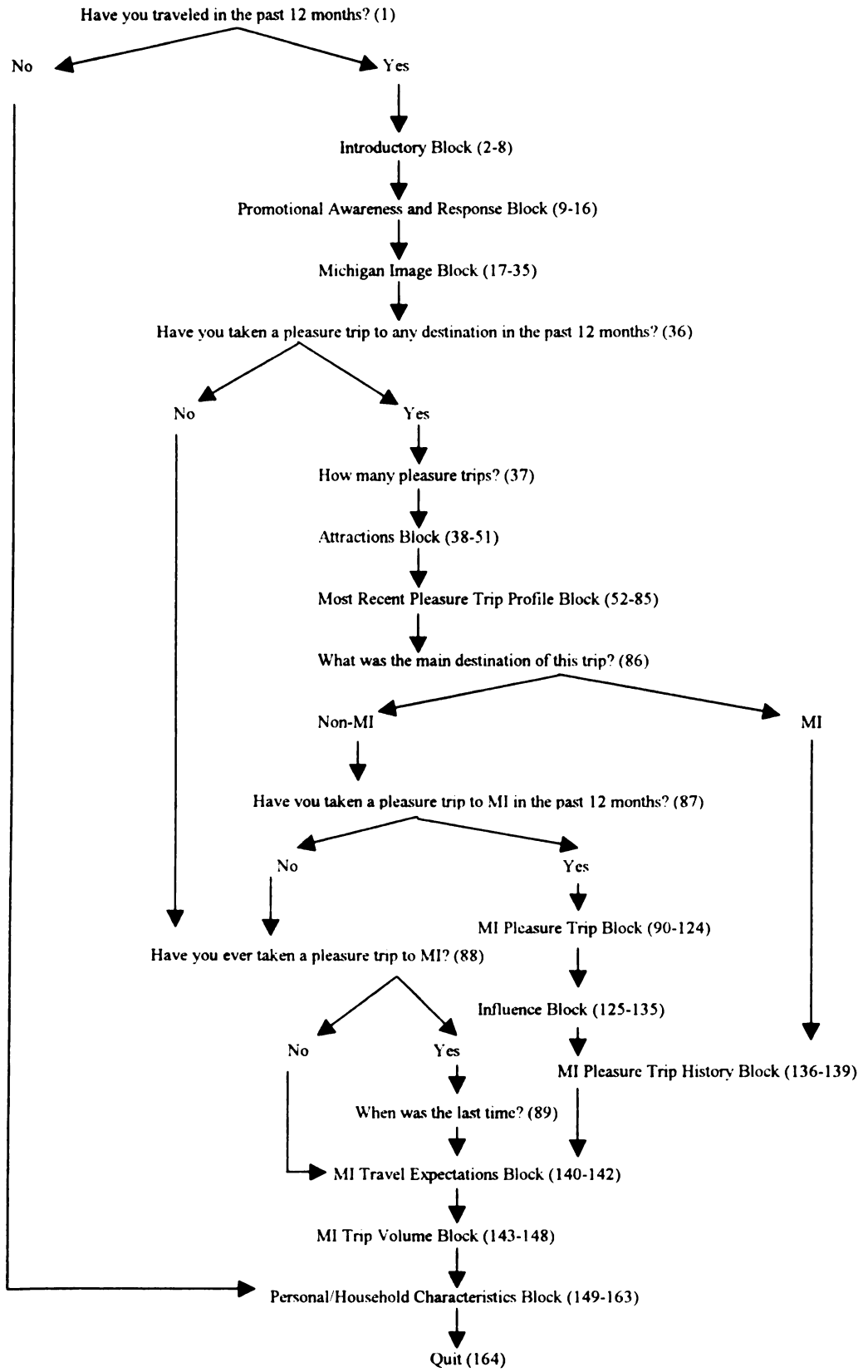


Figure 7. The flowchart of the 1996-1998 questionnaires.

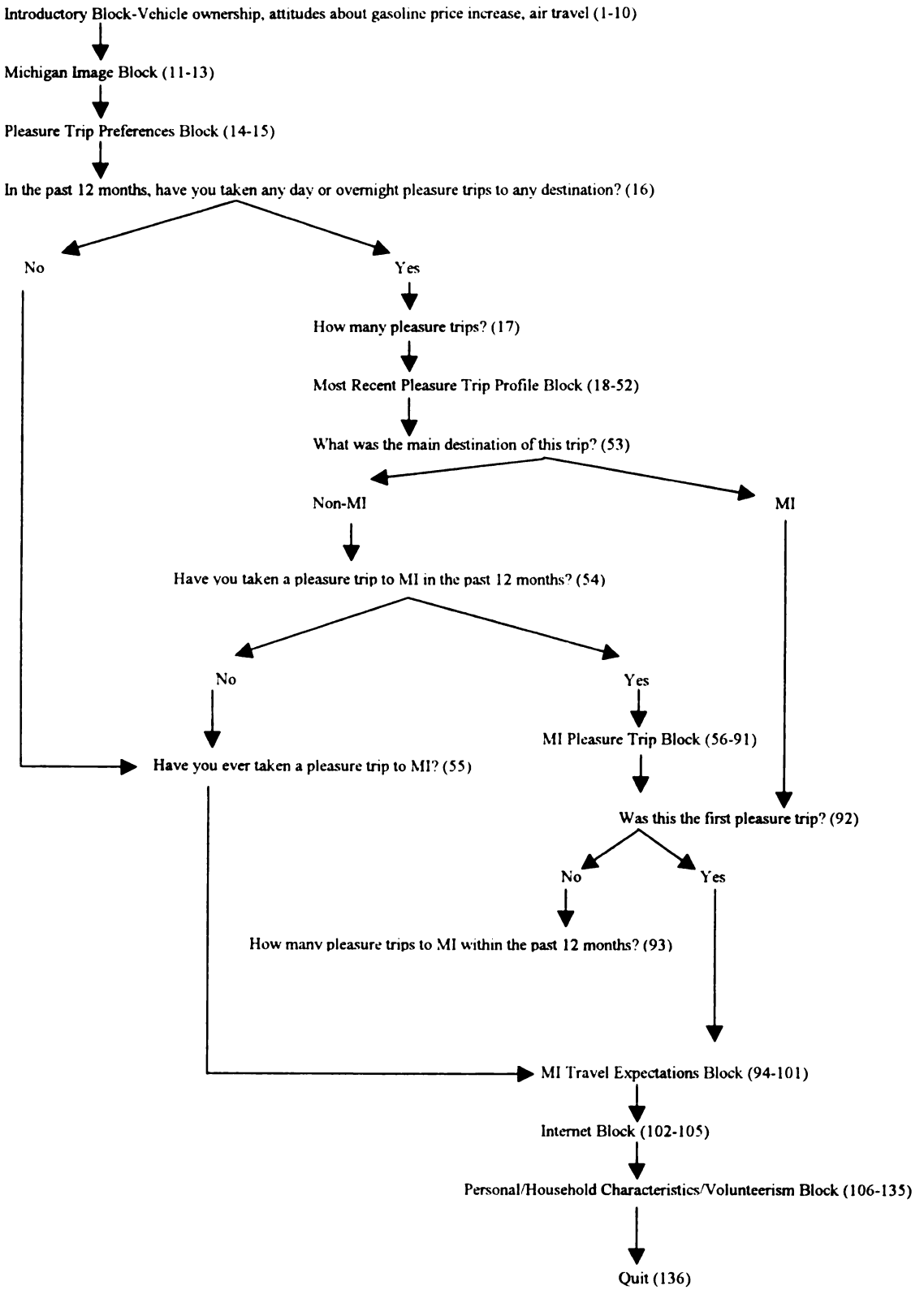


Figure 8. The flowchart of the 2001-2002 questionnaires.

Some items, including image measures were previously generated and tested for reliability and validity by Certec Inc., a private research and consulting company that was a research partner for the first three years that The Michigan Regional Travel Market Survey was conducted.

Although the questionnaire was a lengthy one, due to the skip pattern used throughout the questionnaire, respondents did not have to answer all the questions most of the time (see Figure 7 and 8). The length of interview varied depending on whether or not the interviewee took a pleasure trip to any destination during the past 12 months, whether or not this trip was to Michigan, and whether or not they took any pleasure trip to Michigan within the past 12 months if their most recent trip was not to Michigan.

Thus, if respondents did not take any pleasure trip to any destination within the past 12 months, the interview was completed in few minutes. But if their most recent pleasure trip was to another destination and they also took a pleasure trip to Michigan within the past 12 months, the interview took about twenty minutes or so depending on the speed of the conversation between the interviewer and the respondent. The average time required to complete the questionnaire is about 12 minutes.

Data Collection Mode and Procedures

A CATI-Lab (Computer Assisted Telephone Interviewing Laboratory) was utilized for this survey. The lab had six stations that were connected to the main server at the Travel, Tourism & Recreation Resource Center. The questionnaire was electronically programmed for each interviewing station with the StatPac software language (StatPac

1995). Every time an interview was completed, the data were transmitted to the main server.

Interviews were conducted on weekday evenings and weekend afternoons, between 6 and 10 pm on weekdays, 12 and 4 p.m. on Saturdays, and 2-6 p.m. on Sundays. No interviews were conducted on Fridays due to peoples' tendency to go out on this day of the week.

Phone numbers called were coded upon the first trial using the coding scheme presented in Table 4. If the status of a phone number changed during subsequent calls, codes were modified accordingly. If an interview was completed, at the end of the interview, the computer coded the phone number as (+) automatically and did not allow any subsequent callbacks. Those phone numbers coded as N, U, F, B, T, H, and Q also were not called again. The answering machine, no response, busy and those who asked to be called back were called up to three times (this was increased to five times starting in 2000). After 3/5 trials, the old numbers were discarded, and a brand new set of numbers was uploaded to the interview stations.

Table 4. The interview code scheme.

Codes	Terminology	Explanations
+	Completed	Interview is completed.
C	Call Back	The respondent asked to be called back.
M	Answering Machine	Answering machine picked up.
R	No Answer	There is no answer.
Z	Busy	The line is busy.
N	Not In Service	The line is disconnected.
U	Business	Business number.
F	Fax Machine	Fax machine number.
B	Language Barrier	The respondent cannot speak or understand English.
T	Terminated	The respondent terminated the interviewer by letting the interviewer know beforehand.
H	Hang Up	The respondent hung up without letting the interviewer know beforehand.
Q	Qualified But Refused	The respondent was eligible but refused to participate in the study.

Graduate students from the Department of Park, Recreation & Tourism Resources at Michigan State University were hired for supervision of the CATI-Lab; and at least one supervisor was always present when the interviews were conducted. Interviewers were usually undergraduate female students at Michigan State University.

Interviewers received both oral and practical training for up to four hours before conducting a real interview. They received detailed information about the sponsors and purpose of the study, definitions and concepts used in the survey, the code of conduct in the lab, and were oriented to effective interviewing techniques. They practiced interviewing with other trainees and subsequently observed experienced interviewers conduct real interviews. Their performance was monitored both in terms of work productivity and adherence to rules and procedures. They were given first oral then written warnings in case of unsatisfactory performance.

Interviewer turnover was high, especially towards the end of the school terms because of the interviewers tendency to go home during school breaks. This caused some reduction in number of interviews completed. However, data quality standards were maintained since the supervisors started hiring and training new interviewers before the end of each school semester and never allowed interviewers to conduct actual interviews before they were fully trained.

Response Rate

The average response rate was 44 % when the partially completed interviews were included. The formula of this response rate was: Response Rate = (Fully Completed Interviews + Partially Completed Interviews)/[Sample Size- (Not in Service + Businesses

+ Fax Machines)] x 100. In partially completed interviews, respondents did not answer all the questions due to either one of the following reasons: (1) they hung up without letting the interviewer know in advance, (2) they terminated upon telling the interviewer, (3) the phone line was disconnected due to technical problems.

The response rate was 35% when only fully completed interviews were included in the calculation. All refusals (about 29 % of the eligible respondents), answering machine, no answer, and busy numbers were considered to be nonresponses in calculating this response rate. Thus, the formula of this response rate was: Response Rate = (Fully Completed Interviews)/[Sample Size- (Not in Service + Businesses + Fax Machines)] x 100. This is the most conservative method of calculating the survey response rate (Dillman, 1978; Frey, 1989; Lavrakas, 1993).

During the first year of the study, the presence of nonresponse bias was investigated. Some of the eligible numbers (C, M, R, Z), which were not reached within the first three attempts, were selected and called up to three additional times. Q (qualified but refused), T (terminated), and H (hung up) categories were not included due to the ethical reasons. Those respondents reached on these additional call backs (six-attempt group) were assumed to have similar characteristics to overall non-respondents in the study (Court & Lupton 1997; Jain, Pinson, & Ratchford 1982). These respondents (N=173) were compared to a randomly selected subsample of the three-attempt respondents (N=173) to appraise nonrespondents' characteristics (Miller & Smith 1983).

By using t-tests and Chi-square tests, the two groups were compared on 84 key variables, including demographic characteristics, attitude items, and trip profile items, only three of which were found statistically significant at the .05 level. These included:

(1) on average, the six-attempt group rated the desirability of Ontario as a pleasure trip destination on a ten-point scale more highly than did the three-attempt group (6.7 vs. 5.2), (2) on average, the six-attempt group lived in households containing fewer persons than did the three-attempt group (2.6 vs. 3.1), and (3) the six-attempt group visited a state or national park on their most recent pleasure trip in Michigan at a higher rate than the three-attempt group did (43% vs. 28%).

Given that significant differences were found for only three of 84 items examined, non-response bias would not appear to be present in this data set. However, only 'non-contact' non-response bias was evaluated in this case leaving open the question of non-response bias among those who were contacted but refused to participate in the survey. As noted, it was not possible to contact those who refused since to do so could be considered harassment and unethical.

Data Preparation

The study's main focus was on the most recent pleasure trips taken to Michigan by the residents of Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin, and Ontario, Canada in the past 12 months. The study's purpose was to profile respondents' most recent pleasure trips taken within the past 12 months; if this trip was not to Michigan, then the purpose was to profile their most recent pleasure trips to Michigan within the past 12 months. This has been uniform in the survey across all study years. Also, Michigan image measurement items are located at the beginning of the questionnaire so that Michigan image held by both those who visited Michigan within past 12 months and those who did not can be measured.

However, there is a difference between the periods of 1996-1998 and 2001-2002 in terms of screening respondents (see Figure 7 and 8). In the 1996-1998 questionnaire, the first question asked if the respondents traveled in the past 12 months. If they said yes, then they were asked the Michigan image questions; if they said no, they were routed to the demographic questions located at the end of the questionnaire. Thus, for respondents to be asked Michigan image questions, they had to have taken at least one pleasure trip to any destination within the past 12 months. On the other hand, in the 2001-2002 period, respondents were not screened for a pleasure trip within the past 12 months before being asked the Michigan image questions. Therefore, image respondents in this period include all respondents, including recent travelers and non-travelers. Since the vast majority (80.8 %) of respondents in the initial years of the study reported taking a pleasure trip during the past 12 months, this screening difference is unlikely to be a source of bias in the analyses conducted for this study.

Since the questionnaire was a lengthy one, some respondents hung up or terminated the call before they answered all the questions on the survey. Others could not or would not respond to all items in the questionnaire. Therefore, although the total number of cases in the dataset is 21,111, the case number for each variable is different in the data set. For this reason, some respondents were not included in some analyses. Different analyses were performed on different numbers of cases as will be described and explained later in this chapter. The case numbers for different analyses are provided in Chapter 4.

First, some respondents were deleted during the factor analysis of image data since some respondents terminated the call or hung up before they reached the Michigan

image measures. In addition, some respondents failed to provide a legitimate rating for some image measures. Although "don't know" and "don't want to answer" response categories were accepted by interviewers, in the factor analysis conducted, an actual rating number was required across all image measures; otherwise, the case was dropped. Those cases having responses, such as –99 ("don't know") and –55 ("don't want to answer") were recoded as missing data and excluded in the exploratory factor analysis (n=5,485). A total of 5,485 complete cases were available for conducting factor analysis of image items. Since the use of as many cases as possible is recommended for stable results in factor analysis (Hair et al. 1998), all of these cases were included in the factor analysis of this study. Only about 25% of respondents actually rated the full set of image items. The profile of these respondents (image respondents) is provided next to the profile of all respondents in the sample profiles section of Chapter 4.

A similar dropout in the number of qualified respondents was also observed in the multiple regression analysis conducted since multiple regression analysis also requires listwise deletion. Some respondents terminated the call or hung up before they answered the questions or could not or would not answer specific questions included in the regression models developed for this study, including past travel behavior and demographic questions. The general population model was applied to both visitor and non-visitor respondents to identify the determinants of image for the general public. The recent visitor segment model was applied to recent visitor respondents to identify the determinants of image for the recent visitors to the destination. The profile of these respondents (model respondents) is provided next to the profile of all respondents and image respondents in the sample profiles section of Chapter 4.

The first model, the general population model, includes 15 variables. These variables are respondents' image of Michigan (image factors extracted by Exploratory Factor Analysis and the Overall image extracted by averaging the ratings of the 15 image items), age, gender, race, income, state of residence (Illinois, Michigan, Ohio, Wisconsin, Ontario), overall travel experience within the past 12 months, prior visitation to Michigan and the season of the survey (winter, spring and summer). See Appendix A and B for the specific questions operationalizing these variables.

Respondents' image of Michigan is the dependent variable in the multiple regression analyses throughout this study. The image battery consists of 15 selected image attributes as can be seen in Table 5. Respondents were asked to state the extent of their agreement with these image items on a 10-point Likert-type scale where 1 means "do not agree at all" and 10 means "agree completely". Although the image variable (dependent variable) comprises interval data, it is arbitrarily assumed to be continuous for the regression analysis purposes.

Table 5. Michigan image measures.

Michigan...
Is close enough for a weekend getaway
Has many interesting museums
Is great for summer outdoor recreation activities
Is an exciting place to visit
Has a lot of high quality lodging
Offers much scenic appeal
Is great for winter outdoor recreation activities
Is a good place to meet friendly people
Is a place everyone should visit at least once in their lifetime
Is a safe place to visit
Offers exciting nightlife and entertainment
Is a great place for a family vacation
Is a popular destination with vacationers
Has many interesting historic sites
Offers an excellent vacation value for the money

The independent variables of the general population model are age, gender, race, income, state of residence, overall travel experience within the past 12 months, prior visitation to Michigan, and the season of the survey. Most of these independent variables were measured at the nominal (categorical) level as can be seen in Table 6.

Table 6. The original measurement levels and codes of the variables included in the general population model.

Variables	Level of Measurement	Response Categories
Respondents' image of MI	Interval-1 to10	1="do not agree at all" 10="agree completely." -99=Don't know/No response
Respondents' age	Interval	Open-ended question Responses range between 18-99
Respondents' race	Nominal	Open-ended question grouped into 7 major groups. 1=American Indian/Native 2=Asian/Pacific 3=Black 4=Hispanic 5=White 6=Mix/Multiracial 7=Others
Respondents' gender	Nominal	1=Male 2=Female -99=Cannot determine
Respondents' total annual household income (the median income is defined as $31K for 1996-1997 and $42K for 2001-2002)	Ordinal	1=Above the median 2=Below the median -55=Refused -99=DK/NR
Respondents' state of residence	Nominal	1=Illinois 2=Indiana 3=Michigan *4=Minnesota (Excluded)* 5=Ohio 6=Wisconsin 7=Ontario -99=DK/NR
Overall travel experience within the past 12 months	Ratio	0-100 Measured in 2 variables, see explanation below.
Prior visitation to MI	Nominal	Measured in 3 variables, see explanation below.
The season of the survey	Nominal	1=Spring 2=Summer 3=Fall 4=Winter

To be included in the multiple regression analysis, nominal and ordinal variables were recoded as multiple dummy variables, with the values of 0 and 1. The modified response category codes of these variables and resulting multiple dummy variables used in the regression analysis are provided in Table 7.

Table 7. Modified codes for the nominal and ordinal variables and resulting multiple dummy variables included in the general population model.

Original Nominal Variables	New Dummy Variables	New Codes
Respondents' race	White	1=White 0=Other races
Respondents' gender	Female	1=Female 0=Male
Respondents' total annual household income	Above the median	1=Above the median 0=Below the median
Respondents' state of residence[a]	Illinois	1=Illinois residents 0=Other states' residents
	Michigan	1=Michigan residents 0=Other states' residents
	Ohio	1=Ohio residents 0=Other states' residents
	Wisconsin	1=Wisconsin residents 0=Other states' residents
	Ontario	1=Ontario residents 0=Other states' residents
Prior visitation to MI	Visitation	1=Visited Michigan 0=Did not visit Michigan
The season of the survey[b]	Winter	1=Measured in the Winter 0=Measured in other seasons
	Spring	1=Measured in the Spring 0=Measured in other seasons
	Summer	1=Measured in the Summer 0=Measured in other seasons

[a]: A dummy variable was not created for Indiana to avoid the singular matrix problem in the regression analysis.
[b]: A dummy variable was not created for the Fall season to avoid the singular matrix problem in the regression analysis.
No modification was necessary for continuous variables.

As can be seen in Table 7, each category in each variable was recoded into individual dummy variables with the values of 0 and 1. The number of dummy variables for each categorical variable is one less than the number of categories it has. For example, the season of the survey variable has four categories, but only three dummy variables with the values of 0 and 1 were created; similarly, the gender variable has two categories, but only one dummy variable was created. Creation of dummy variables, one

less than the number of categories a variable has, is performed to avoid the singular matrix problem in the multiple regression analysis (Hair et al. 1998). Destination image, age and general travel experience variables were not recoded since they are continuous variables in the regression analysis.

For each of these dummy variables, each case in the dataset was recoded as 0 and 1, 1 meaning the case represents a condition and 0 meaning it doesn't represent that condition. Let's take the spring dummy variable to explain this further. On the spring dummy variable, those cases that were measured in the spring were coded as 1 (measured in the Spring), and all others were recoded as 0 (not measured in the Spring). The same procedure was applied to other season dummy variables as well as all other dummy variables.

Some variation was lost for the respondents' race variable since all race categories were recoded into one dummy variable categorizing them as white and nonwhite. This was performed since the overwhelming majority of the respondents are white as will be discussed in Chapter 4.

Prior visitation to Michigan was established from responses to three different questions. As can be seen in Figures 7 and 8, the trip destination question appears at the end of the most recent pleasure travel block. If the destination of this trip was not Michigan, the respondents were asked if they took a pleasure trip to Michigan within the past 12 months. If they said no, then they were asked if they have ever taken a pleasure trip to Michigan. Thus, there were three types of visitor respondents: (1) visitors whose most recent trip within the past 12 months was to Michigan, (2) visitors who took a trip to Michigan within the past 12 months but not during their most recent trip, and (3) visitors

who visited Michigan but not within the past 12 months. The original visitation variables and their response categories are presented in Table 8.

Table 8. Original visitation variables and their response categories.

Visitation Variables	Response Categories
1-What was the main destination of this trip? City/Place State/Province/Country	Open ended, but recoded during the interview as: 1=Michigan destination 2=Non-Michigan destination
2-Was a place in Michigan the main destination of any of the pleasure trips you've taken in the past 12 months?	1=Yes 2=No -99=DK/NR
3-Have you ever taken a pleasure trip to a place in Michigan?	1=Yes 2=No -99=DK/NR

Note: Question numbers are not actual sequence numbers on the questionnaire.

These questions measuring prior visitation were also recoded into three individual dummy variables, and finally, all three dummy variables were recoded into one single dummy variable. The original variable values, recoded new dummy variables and ultimate visitation dummy variable are presented in Table 9.

Table 9. Original visitation variables, new dummy variables and the ultimate visitation dummy variable.

Original Visitation Variables	Response Categories	New Dummy Variables	Ultimate Visitation Dummy Variable
1-What was the main destination of this trip? City/Place State/Province/Country	1=Michigan destination 2=Non-Michigan destination	1=Visited Michigan 0=Did not visit Michigan	1=Visited Michigan at some point in their lives 0=Did not ever visit Michigan
2-Was a place in Michigan the main destination of any of the pleasure trips you've taken in the past 12 months?	1=Yes 2=No -99=DK/NR	1=Visited Michigan 0=Did not visit Michigan	
3-Have you ever taken a pleasure trip to a place in Michigan?	1=Yes 2=No -99=DK/NR	1=Visited Michigan 0=Did not visit Michigan	

Note: Question numbers are not actual sequence numbers on the questionnaire.

As can be seen in Table 9, each visitation variable was recoded into three individual dummy variables with the values of 0 and 1. Thus, those cases that had a

Michigan destination on the first visitation variable were coded as 1 and all others were coded as 0. Similarly, those cases that had yes on the second variable were coded as 1 and all others as 0. The same procedure was applied to the third visitation variable. Cases responding as –99 and –55 were recoded as system missing since they could not be included in the multiple regression analysis.

Finally, these three variables were recoded into one visitation dummy variable by using the count function of SPSS 10.0. With this function, the values of 1 in each of these three variables are counted, resulting in another dummy variable with the values of 0 and 1, 1 meaning visited Michigan at some point and 0 meaning did not visit Michigan at all. Since each respondent was supposed to be asked only one of these 3 questions, the resulting count should not be greater than 1. However, some cases ended up having the values of 2 and even 3, which meant that they were erroneously asked questions they were not supposed to be asked. This was assumed to be due to the interviewer error, and these values were replaced with 1.

The overall travel experience within the past 12 months variable was created by combining the responses to two questions: (1) Have you taken a pleasure trip to any destination in the past 12 months? and (2) How many pleasure trips? Since there is a skip pattern involved in this questionnaire, those respondents who said "no" to the first question were not asked the second question. To include these non-travelers into the overall travel experience within the past 12 months variable, these respondents were coded as 0 on the second question. Thus, both travelers and non-travelers were included in the overall travel experience within the past 12 months variable and related analyses; inclusion of non-travelers is relevant to the general population model but not to the recent

visitor segment model since the recent visitor segment model encompasses only recent visitors of Michigan. Since the general population model pertains to travelers and non-travelers, all respondents giving valid responses were included in this analysis (n=3,554).

On the other hand, the recent visitor segment model was applied to only respondents who took a pleasure trip in Michigan within the past 12 months. In this model, the dependent variable is the same, respondents' image of Michigan and the independent variables are the same as in the general population model with the exception of the prior visitation to Michigan. The prior visitation variable is excluded in the recent visitor segment model since only visitor respondents are included in the test of this model. However, additional visitation-related variables are included in this model. These additional variables are: the frequency of visitation to Michigan within the past 12 months, whether or not the last visit to Michigan is the most recent trip, the season of the last visit to Michigan (winter, spring & summer), the length of stay in Michigan during the last visit (# of nights spent), and the number of activities participated in during the last visit to Michigan.

Some of these additional variables were recoded as dummy variables by using the same procedure that was used for the general population model discussed previously. The original visitation-related variables, their levels of measurement and response categories are presented in Table 10, and applied modifications are presented in Table 11. The continuous variables, which include: the frequency of visitation to Michigan within the past 12 months, the length of stay during the last visit in Michigan (# of nights), and the number of activities participated in during the last visit in Michigan were not modified.

Table 10. Original visitation-related variables, their levels of measurement and response categories.

Original Variables	Level of Measurement	Original Response Categories
The frequency of visitation to Michigan within the past 12 months	Interval	Open-ended question Responses range between 1-12
Whether or not the last visit to Michigan is the most recent trip[a] 1-What was the main destination of this trip? City/Place State/Province/Country	Nominal	Open-ended, but recoded during the interview as: 1=Michigan destination 2=Non-Michigan destination
2-Was a place in Michigan the main destination of any of the pleasure trips you've taken in the past 12 months?	Nominal	1=Yes 2=No -99=DK/NR
The season of the last visit to Michigan	Nominal	Open-ended question with a numerical answer (1-12 months) Months recoded into 4 seasons 12 and 1-2=1=Winter;3-5=2=Spring; 6-8=3=Summer; 9-11=4=Fall
The length of stay during the last visit in Michigan (# of nights)	Ratio	Responses range between 0-199 Measured in two variables, see explanation below.
The number of activities participated in during the last visit in Michigan	Ratio	0-11 Recreated variable, see explanation below.

[a]: Those respondents who visited Michigan sometime but not within the past 12 months were not included since they didn't have responses for the trip-related variables.

Table 11. The original and recoded categories of the visitation-related variables.

Original Variables	Original Response Categories	New Dummy Variables
Whether or not the last visit to Michigan is the most recent trip 1-What was the main destination of this trip? City/Place State/Province/Country 2-Was a place in Michigan the main destination of any of the pleasure trips you've taken in the past 12 months?	Open ended, but recoded during the interview as: 1=Michigan destination 2=Non-Michigan destination 1=Yes 2=No -99=DK/NR	These two variables were recoded into one dummy variable 1=Visited MI most recently 0=Visited MI less recently
The season of the last visit to Michigan[a]	Winter	1=Visited MI in the Winter 0=Visited MI in other seasons
	Spring	1=Visited MI in the Spring 0=Visited MI in other seasons
	Summer	1=Visited MI in the Summer 0=Visited MI in other seasons

[a]: A dummy variable was not created for the Fall season to avoid the singular matrix problem in the regression analysis.
No modification was performed on continuous variables.

As was mentioned before, the MRTMS contained two pleasure trip blocks: most recent trip block and less recent trip block. If the respondents' most recent trip was to Michigan, they were not asked the less recent trip block questions. If their most recent trip was not to Michigan, then they were asked if they took a trip to Michigan within the past 12 month. Thus, Michigan visitors' trip data pertaining to their trip to Michigan within the past 12 months were stored in two data blocks in the same data set.

To apply the recent visitor segment model analysis, the data set was split into two sets of respondents: (1) those who visited Michigan on their most recent trip (1,723 cases) and (2) those who visited Michigan sometime within the past 12 months (1,415 cases). Then, two new data files were created: (1) a file containing the most recent Michigan travelers with their responses to the most recent trip block and (2) a file containing the less recent Michigan travelers with their responses to the less recent trip block. Since both blocks included the same questions regarding pleasure trip variables and both files had these blocks along with image battery and sociodemographic variables, these two files were merged into one file with a recent visitor sample including both most recent and the less recent Michigan visitors. Thereby, both segments could be included in the regression analysis, which was not possible with the original data format.

Once the most recent and the less recent blocks were combined, a few more modifications were needed. First, since there was a skip pattern involved in the questionnaire, those who did not travel to Michigan on their most recent trip seemed to have missing data on the variable of whether or not the last visit to Michigan is the most recent trip. To execute the regression analysis on all respondents, those less recent trip respondents were coded as zero on this trip recency variable. A similar modification was

done to the length of stay variable. If respondents said that their trip was a day trip, they were not asked how many nights they spent in Michigan. To include these day-tripper respondents in the regression analysis, they were coded as zero on the length of stay variable (# of nights). Thus, the number of cases included in the recent visitor segment model analysis is 1,269.

The number of activities is not an original variable; rather it was recreated from another set of variables containing activities pursued on respondents' trips. On the survey, respondents are asked to give yes/no responses on 11 types of activities to indicate whether or not they engaged in each of these activities during their last trips (see survey instrument in Appendix A and B for these activities). These activity variables were recoded into the number of activities variable by using the SPSS's count function, which counted the yes responses (1) in each of these variables, thereby revealing the total number of activities engaged in during the last trip. Similar to the procedure followed in the general population model data preparation, cases with –99 and –55 were recoded as system missing since they could not be included in the multiple regression analysis.

Data were weighted to adjust for the uneven sampling and participation rates across the states and Ontario that were included in the study region. This was necessary to achieve a sample proportionate to the actual population sizes across the study region. Household populations in these states were obtained from the 2000 Census data of the U.S. Census Bureau (2001). The weighting ratios for each state and Ontario are provided in Table 12. For example, cases from Ontario were multiplied by 1.06095056689478 to adjust the sample of households obtained to the population distribution of households in Ontario. When data were weighted, those cases that did not have a valid response for the

state variable were dropped from the further statistical procedures. The sample sizes for weighted and un-weighted datasets were also different as can be seen in Table 13.

Table 12. Weighting ratios used for each study region.

State	Weighting Ratio
Illinois	1.47893712427784
Indiana	0.823092081148211
Michigan	0.839421243061205
Ohio	1.183447641793
Wisconsin	0.657691714622163
Ontario	1.06095056689478

Table 13. Sample sizes for weighted and un-weighted datasets.

Un-weighted	Weighted
All respondents = 21,111	All respondents = 20,704
All visitors = 3,138	All visitor = 2,903

Data Analyses

The Michigan Regional Travel Market Survey is a longitudinal ongoing project; however, only data gathered in 1996, 1997, 1998, 2001 (November & December only) and 2002 were analyzed because image measures were included in the instrument only during these periods. On average, 400 interviews were completed each month during this period. A total of 21,111 completed interviews were available from this period; however, the number of interviews suitable for analysis was considerably less. As was explained before, some cases were not used in some analyses because of the fact that respondents either terminated the interview or did not answer all questions pertinent to these analyses. For example, in the all-years' data (1996, 1997, 1998, 2001-November & December-, and 2002), only 5,485 cases were included in the exploratory factor analysis, since only these cases contained responses for all of the 15 image measurement items.

As was mentioned in the literature review of factor analysis, it is recommended to use the largest sample possible for developing a parsimonious factor model (Hair et al. 1998). For this reason, all usable cases in the all-years' dataset (1996, 1997, 1998, 2001-November & December-, and 2002) were utilized in exploratory factor analysis in this study. Similarly, all usable cases in the all-years' dataset were also used in testing both the general population model and the recent visitor segment model. The purpose was to be as inclusive as possible while testing the fit of these models to the data. Subsequently, both exploratory factor analysis and multiple regression analysis are also applied to the data from two different time periods to validate the results obtained from the all-years' data. These two data periods are the beginning years of the survey (including 1996 and 1997) and later years of the survey (including 2001 and 2002). In other words, the data from 1998 are not included in the validation analyses. This was performed to differentiate between the data of initial tests and data of validation tests.

The data were analyzed in a four-step process. In Table 14, a summary of each of these steps, the variables included, variable types, and analysis tools used (including frequencies, descriptives, exploratory factor analysis, and multiple regression analysis) is provided. Analysis tools in the Statistical Package for Social Sciences (SPSS, Version 10.0) software were used.

In the first step, both all respondents and the recent visitor subgroup were examined in terms of demographic characteristics to gain a general understanding of the characteristics of the sample. Frequency distributions, and descriptives, such as valid case numbers, minimum and maximum values, means, and standard deviations were included as statistical descriptions where necessary. Since a considerable amount of respondents

Table 14. Steps of analyses used in the study.

Step 1 – Sample Description & Comparisons		
Variables	**Type**	**Analysis Tools**
Respondent sociodemographics (general population & recent visitor segment) Comparisons of different groups of respondents & different race groups	Continuous Categorical	Descriptives, t-test & One-way ANOVA Frequencies & Chi-square
Step 2 – Image Description, Comparisons & Data Reduction		
Destination image (15 items) Comparisons of image for different groups and different periods	Continuous	Descriptives, t-test & Exploratory Factor Analysis
Step 3 – General Population Model Test		
Dependent Variable: Destination image	Continuous	
Independent Variables		
Respondents' age	Continuous	
Respondents' race-White	Dummy	
Respondents' gender-Female	Dummy	
Respondents' total annual household income-Above the median	Dummy	
Respondents' state of residence-Illinois	Dummy	(OLS)
Respondents' state of residence-Michigan	Dummy	Multiple Regression Analysis
Respondents' state of residence-Ohio	Dummy	
Respondents' state of residence-Wisconsin	Dummy	
Respondents' state of residence-Ontario	Dummy	
Overall travel experience within the past 12 months	Continuous	
Prior visitation to Michigan	Dummy	
The season of the survey-Spring	Dummy	
The season of the survey-Summer	Dummy	
The season of the survey-Fall	Dummy	
Step 4 - Recent Visitor Segment Model Test		
Dependent Variable: Destination image	Continuous	
Independent Variables		
Respondents' age	Continuous	
Respondents' race-White	Dummy	
Respondents' gender-Female	Dummy	
Respondents' total annual household income-Above the median	Dummy	
Respondents' state of residence-Illinois	Dummy	
Respondents' state of residence-Michigan	Dummy	
Respondents' state of residence-Ohio	Dummy	(OLS)
Respondents' state of residence-Wisconsin	Dummy	Multiple Regression Analysis
Respondents' state of residence-Ontario	Dummy	
Overall travel experience within the past 12 months	Continuous	
Prior visitation to Michigan	Dummy	
The season of the survey-Winter	Dummy	
The season of the survey-Spring	Dummy	
The season of the survey-Summer	Dummy	
Frequency of visitation to MI	Continuous	
Whether or not the last visit to MI is the most recent trip	Dummy	
The season of the last trip-Winter	Dummy	
The season of the last trip -Spring	Dummy	
The season of the last trip -Summer	Dummy	
The length of stay in MI during the last trip (# of nights)	Continuous	
The # of activities participated in during the last trip in MI	Continuous	

were eliminated in factor and regression analyses, those respondents who were included in these analyses were compared to a group of respondents who provided partial responses to the 15 image items and model-related variables. This was performed to see if the respondents included in these analyses are different from those who were excluded and to check for the possibility of bias in results regarding the general population. Chi-square tests and t-tests were used to check for the significance of the differences among different groups of respondents.

Also, the white race is over-represented in some of the analyses regarding the general population; therefore, different race groups were compared on selected key variables to see if under-representation of non-white races might have caused a possible bias in the results of this study. Chi-square tests and One-way ANOVA tests were used to check for the significance of the differences among different races.

The Chi-square test provides the distribution of a categorical variable on another categorical variable and computes Chi-square statistics based on the differences between the observed and the expected frequencies, assuming these observed and expected frequencies to be equal for the null hypothesis to be true. The t-test provides the mean values of a continuous variable on the categories of a dichotomous variable and computes a t-statistic based on the differences between the mean values and variances for the two groups, assuming the mean values to be equal for the null hypothesis to be true. The One-way ANOVA provides the mean values of a continuous variable on the categories (more than two) of a nominal variable and computes an *f*-ratio based on the differences between the mean values and variances for the different categories, assuming the mean values to be equal for the null hypothesis to be true.

In the second step, the 15 image items are examined using descriptive statistics. The t-test was used to compare mean ratings of each image item between earlier (1996-1997) and later (2001-2002) years of the MRTMS to assess the change in the perception of Michigan. A similar comparison was conducted between ratings of visitors and non-visitors. Also, the raw image items were subjected to factor analysis to reduce the image data to few manageable and meaningful image factors. Exploratory factor analysis of SPSS 10.0 was employed as a data reduction tool to derive meaningful and uncorrelated factors to be used in subsequent analyses.

The items were factor analyzed using the principal component analysis as the initial factor extraction method. Initially, the Eigenvalue-exceeding-one criterion was used to decide on the number of factors to be extracted. Subsequently, these factors were rotated using the Varimax rotation method to obtain uncorrelated factors to be used in subsequent analyses. Image items with loadings 0.5 and higher were considered as substantial loadings and used to represent the factors. Eventually, the internal stability of the factors was tested by using Cronbach's alpha. For additional analysis, factor scores were computed for each case using the regression factor scores function of SPSS 10.0. With this procedure, the regression scores can be saved automatically as soon as the factors are extracted.

In the third step, the general population model was tested. The calculated scores for the two image factors along with the overall image (mean image score), and independent variables, namely, age, race, gender, income, the state of residence (Illinois, Michigan, Ohio, Wisconsin and Ontario), overall travel experience within the past 12 months, prior visitation to Michigan, and the season of the survey (winter, spring and

summer) were used as inputs for the multiple regression analysis. Ordinary least square regression was employed to investigate the relationship between the dependent variable and the set of independent variables and to determine statistical significance and relative influence of each independent variable as an determinant to destination image held by the general public. Independent variable coefficients were estimated and tested for significance and relative influence as delineated in the hypotheses discussed in Chapter 1.

In the fourth step, the recent visitor segment model was tested. The calculated scores for the two image factors along with the overall image (mean image score), and independent variables, namely, age, race, gender, income, state of residence (Illinois, Michigan, Ohio, Wisconsin and Ontario), overall travel experience within the past 12 months, the season of the survey (winter, spring and summer), the frequency of visitation to Michigan within the past 12 months, whether or not the last visit to Michigan is the most recent trip, the season of the last visit to Michigan (winter, spring and summer), the length of stay (# of nights) in Michigan during the last visit and the number of activities participated in during the last visit to Michigan were used as inputs for the multiple regression analysis. Ordinary least square regression procedures were applied.

The basic model of the study is:

$$Y = \beta X + \varepsilon$$

where, Y is the column of Y values (random or stochastic), X is a matrix of X values (fixed or nonstochastic), β is a column of coefficients, and ε is a column of random error terms (homoscedastic).

Multiple regression was used to test the multiple hypotheses that the coefficients of the selected independent variables are not zero in explaining Michigan's image. The

multiple regression model defined in the first chapter was estimated by using the ordinary least square (OLS) regression model, assuming the dependent variable is continuous and normally distributed, and there is constant variance and lack of multicollinearity and singularity. SPSS version 10.0 was used to run the OLS regression. Coefficients, standard errors, t-statistics, p-values and means of the independent variables were used to test the hypotheses. Standardized or beta coefficients were also calculated to compare the magnitude of the impact of each independent variable on Michigan's image. Model fit statistics, namely, R^2, the *f*-statistic, and α (p-value) were calculated and used to evaluate the significance of linear relationships between the dependent variable and the independent variables in the population.

Because of the progressive dropout in the sample throughout different steps of analyses, the sample size gets smaller in each step of analyses. However, since the MRTMS database is rather extensive, the number of cases involved in each analysis of this study is above 300. Within the frame of Central Limit Theorem, which was provided in Chapter 2, the data will be assumed to represent the study population even if the normality assumption was violated. Therefore, no test of normality was performed. Multicollinearity and singularity were evaluated by the use of tolerance values and correlation matrices calculated during the regression analyses.

CHAPTER IV

RESULTS AND DISCUSSION

The primary objective of this dissertation was to expand knowledge and understanding of the relationships between destination image and selected variables thought to influence destination image formation including: age, race, gender, income, the state of residence, overall travel experience within the past 12 months, prior visitation to the study destination, the frequency of visitation to the study destination within the past 12 months, whether or not the last visit to the study destination is the most recent trip, the season of the last visit to the study destination, the length of stay in the study destination during the last visit, the number of activities participated in during the last visit to the study destination and the season of the survey. Secondary data gathered by computer-assisted telephone-interviewing laboratory (CATI-Lab) were used in the analyses conducted. The variables used to test the study hypotheses can be categorized into four groups: Destination image measures, respondents' demographics, respondents' past travel behavior, and a methodological variable.

Before executing the main analysis techniques of this study, which are exploratory factor analysis and multiple regression analysis, numerical summary measures of the data, descriptive statistics and frequency distributions, were developed for all related variables to assess the central tendency, variability, and frequency of these variables. The results of the analyses are presented in three sections.

The first section contains the demographic profiles of all respondents and recent visitor respondents for different survey periods. Throughout this chapter, all respondents

(including visitors and non-visitors) will be dubbed as the 'mixed sample'. The profiles of the mixed sample and the recent visitor group are provided in three segments: (1) all respondents, all cases with demographic information whether or not they have complete information on image or model related variables (2) image respondents, cases with demographic information and complete information on all 15 image items, and (3) model respondents, cases with demographic information and complete information on all 15 image items and model related variables. This profile segmentation was performed to see if these groups grossly differ from one another. The same profiling was performed separately on the all-years' data (1996,1997, 1998, 2001, and 2002) as well as the 1996-1997 and 2001-2002 subsamples since factor analysis and regression model test analyses were applied on all-years' data as well as these subsamples for validation of the results. Given that the data were found to be robust, it was expected that analyses on these different subsamples would lead to very similar overall findings. This section also contains comparisons of different groups of respondents, including: (1) comparison of respondents who completed all 15 image items with those who responded image items partially (at least one item but not all), (2) comparison of respondents who completed all general population model-related variables, including the 15 image items, with those who responded image items partially (at least one item but not all), (3) comparison of respondents who completed all general population model-related variables, including the 15 image items, with those who completed all 15 image items but not all general model-related variables, (4) comparison of different races. These comparisons were performed on few selected key variables to check for possible bias due to systematic exclusion of

respondents with partial non-response and/or due to overrepresentation of the white race group in the results of the image analysis and the general population model test.

The second section deals with image measurement item analyses. First, descriptive statistics including means and standard deviations of each image measurement item are provided for different time periods and different groups, namely, visitors (all three types of visitors) and non-visitors along with the t-tests on differences between different periods and groups. Also provided is the correlation matrix of the image measurement items. Then, results of the exploratory factor analysis on 15 image items are provided for different subsamples, along with the schematic depiction of the resulting two-factor model.

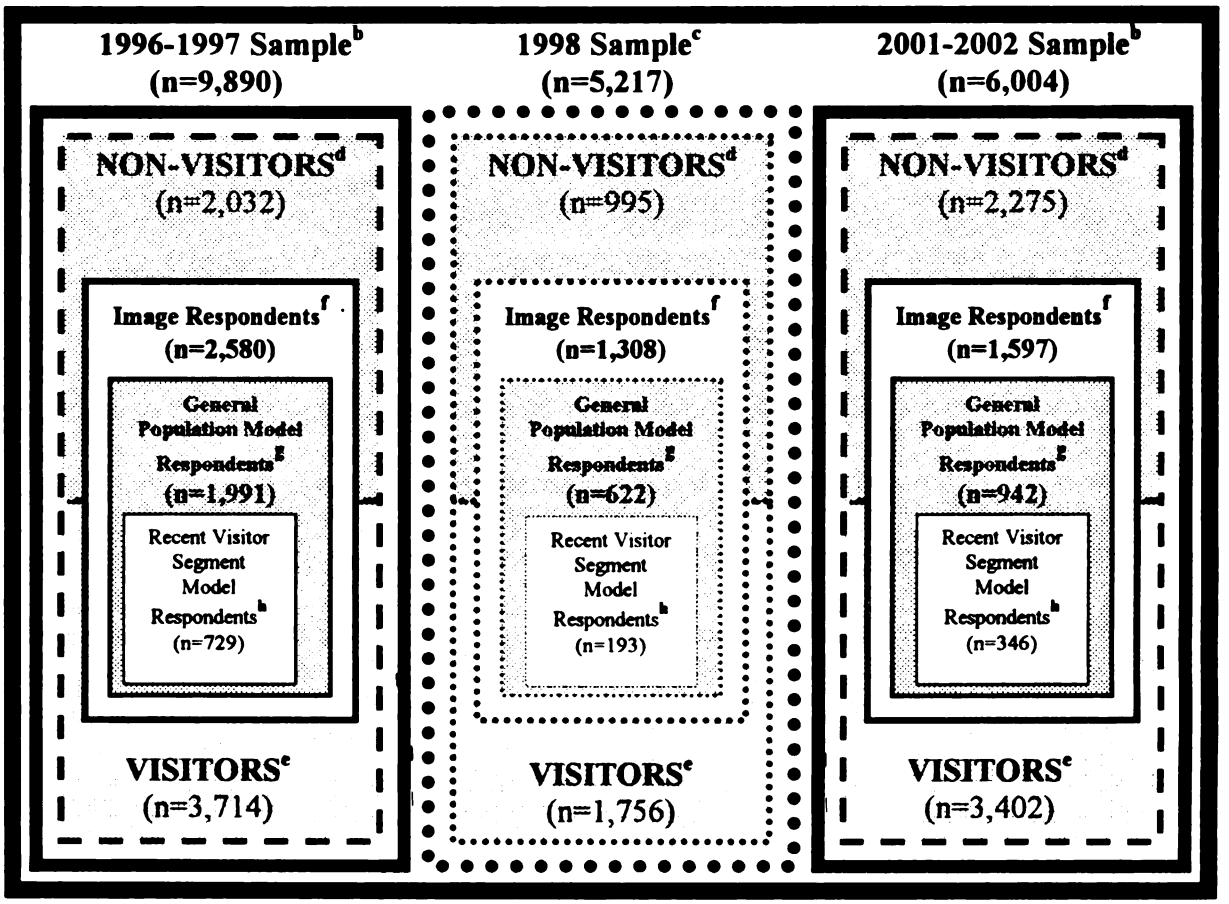
The third section contains the analyses pertaining to the regression models that were developed. First, all model variables, both dependent and independent, that were used to test study hypotheses are described. Sample means are presented for all variables, and frequency distributions are also provided for dummy variables. The results of the hypotheses tests for both the general population model and the recent visitor segment model are presented in the remainder of this section. General population model results include the relationships between destination image and proposed determinant variables, including respondents' sociodemographics, overall travel experience within the past 12 months, prior visitation to Michigan, and the season of the survey. Recent visitor segment model results contain the relationships between destination image and proposed determinant variables, including respondents' sociodemographics, overall travel experience within the past 12 months, the frequency of visitation to Michigan within the past 12 months, selected last visit related variables and the season of the survey.

Sample Profiles

Since both factor analysis and model test analyses were applied to data from different time periods for validation purposes, sample profiles were also analyzed for these different time periods to check for discrepancies between these different subsamples. The three different time periods are: (1) all-years (1996, 1997, 1998, 2001 and 2002), (2) the initial-years (1996-1997), and (3) the later-years (2001-2002). Within each time period, different groups were analyzed separately in terms of descriptives and frequencies: (1) all respondents, (2) image-respondents, those who answered all image items with valid answers, and (3) model-respondents, those who provided valid responses for all variables that are included in the regression models.

Cases with missing values or invalid responses for the image measurement items were deleted listwise in the exploratory factor analyses; that is, only those respondents giving a valid answer for all image items were included in the analysis. In addition, those cases that did not have a valid data point for the variables included in the models (highlighted variables in Table 15 and Table 21) were deleted in the regression model test analyses. The profiles of image respondents and model respondents for each data period are also provided for the purpose of comparisons.

The same procedure was applied for both the mixed sample and the recent visitor segment. See Figure 9 for a visual depiction of these samples and subgroups. The model respondents in the mixed sample refer to the general population model respondents; the model respondents in the recent visitor segment refer to the recent visitor segment model respondents.



[a]: All usable cases in this sample are used to test the study hypotheses.

[b]: All usable cases in these samples are used for validation of the hypothesis test results.

[c]: This sample is excluded in the validation tests for the differentiation purpose.

[d]: Those who never visited Michigan.

[e]: All three types of Michigan visitors (most recent within the past 12 months, less recent within the past 12 months, and visited sometime before the past 12 months).

[f]: Those respondents who provided valid responses for all 15 image items.

[g]: Those respondents who provided valid responses for all 15 image items and variables included in the general population model.

[h]: Recent visitor respondents who provided valid responses for all 15 image items and variables included in the recent visitor segment model.

Figure 9. Samples, subsamples and subgroups utilized in different analyses.

In comparing these subgroups, a subjective assessment was used instead of inferential statistics since these groups are not mutually exclusive. So, if the percentages in image and model respondents subgroups are higher, it means this demographic group (e.g., black race group) is more likely to complete the survey with valid responses; if it is

lower, it means this demographic group is less likely to complete the survey with valid responses.

The Mixed Sample Profile

The frequency distributions and descriptive statistics for the mixed sample across different time periods and different subsamples are presented in Table 15. The total sample size for all respondents for the all-years' data is 21,111; however, if a state code was not assigned for a case, it was discarded since it could not be used in the weighting scheme used to balance the sample by respondent origin. Deleting these, reduced the full sample size to 20,704. Some cases have missing values on some demographic variables; therefore, sample sizes for different demographic variables vary in Table 15.

As can be seen in Table 15, in the all-years' sample, Illinois and Ohio have the highest percentages (21.3% and 20.9%, respectively) and Indiana and Wisconsin have the lowest percentages (11.1% and 10.1%, respectively). With slight differences in percentages, the same pattern exists in the 1996-1997 data. However, in the 2001-2002 data, the highest percentage belongs to Ontario (20.8%) while the second highest is still Ohio (20.3%). The lowest percentages again belong to Indiana and Wisconsin (10.5% and 9.8%, respectively).

When it comes to the image-respondent and model-respondent subgroups, the percentages of all states decrease except for Michigan, which is more than double as much as that of the all-respondents group across all time periods. This results from the tendency of Michigan resident respondents to fully complete the survey while other respondents were more likely not to complete the survey and provide valid responses to

Table 15. The descriptives and frequencies of all respondents' demographics for different time frames and subgroups.

Demographic Variables	All-years[a] (n=10,748-20,704)[b]			1996-1997 (n=4,900-9,925)[b]			2001-2002 (n=2,909-5,565)[b]		
	All	Image resp.[c] (n≤5,485)[b]	Model resp.[d] (n≤3,554)[b]	All	Image resp.[c] (n≤2,579)[b]	Model resp.[d] (n≤1,990)[b]	All	Image resp.[c] (n≤1,597)[b]	Model resp.[d] (n≤942)[b]
State of Residence (%)[e]									
Illinois	21.3	17.1	17.9	23.0	19.1	19.5	18.7	13.2	13.2
Indiana	11.1	9.0	9.5	11.3	9.2	9.6	10.5	7.9	9.1
Michigan	18.5	36.6	35.6	17.8	33.1	32.3	19.9	47.1	45.0
Ohio	20.9	18.2	18.3	21.0	18.7	18.9	20.3	15.7	16.2
Wisconsin	10.1	8.7	9.3	10.4	9.7	10.1	9.8	6.2	6.8
Ontario	18.1	10.4	9.4	16.5	10.2	9.6	20.8	9.9	9.7
Race Group (%)[e]									
Native American	0.5	0.6	0.7	0.4	0.4	0.4	0.8	1.0	1.3
Asian Pacific	1.5	1.3	1.3	1.2	1.2	1.3	1.6	0.9	0.9
Black	5.9	5.6	4.8	6.0	5.7	5.4	5.9	5.9	3.8
Hispanic	1.6	1.2	1.0	1.9	1.3	1.0	1.4	1.3	1.0
White	84.1	87.5	88.8	85.4	88.5	89.6	82.2	85.3	87.5
Other	6.4	3.9	3.4	5.2	2.9	2.3	8.2	5.5	5.5
Employment (%)									
Full-Time	57.9	66.0	68.4	56.3	66.6	68.9	60.5	66.4	68.8
Part-Time	9.2	9.5	9.7	9.8	10.3	10.3	7.6	7.3	7.4
Retired	18.1	11.5	9.3	17.8	9.1	7.7	18.3	15.0	12.8
Unemployed	3.2	2.1	1.8	3.2	1.4	1.3	3.1	2.4	1.9
Homemaker	5.5	4.9	5.1	6.4	5.8	5.7	4.5	4.2	4.8
Student	3.9	4.3	3.9	4.2	5.3	4.4	4.0	3.0	2.8
Other	2.2	1.6	1.4	2.4	1.6	1.5	2.0	1.7	1.4
Gender (%)[e]									
Male	38.6	44.1	44.2	38.0	43.9	44.5	39.1	44.0	43.6
Female	61.4	55.9	55.8	62.0	56.1	55.5	60.9	56.0	56.4
Annual income (%)[e]									
Above median *($31K for '96-'97 / $42K for '01-'02)*	66.8	77.4	80.7	66.8	80.6	81.9	65.0	70.2	76.0
Below median *($31K for '96-'97 / $42K for '01-'02)*	33.2	22.6	19.3	33.2	19.4	18.1	35.0	29.8	24.0
More than *$50K for '96-'97 / $65K for '01-'02* (%)	59.1	64.6	50.8	58.0	64.4	51.3	59.9	63.2	47.5
Age (Mean Years)[e]	43.1	41.8	41.4	42.3	40.8	40.6	44.6	44.6	43.9
Full Time Wage-earners (Mean #)	1.37	1.50	1.53	1.35	1.54	1.56	1.40	1.47	1.48
Number of persons in the household (Mean #)	2.86	2.97	2.99	2.87	3.03	3.02	2.89	2.92	2.94
Pre-school child in the household (Yes %)	14.1	15.2	15.7	15.4	16.4	16.3	13.5	14.0	15.0
School-age child under age 18 in the household (Yes %)	34.1	37.9	38.5	34.5	39.0	38.9	34.6	37.5	38.4
Senior citizen in the household (Yes %)	24.8	17.8	15.4	25.0	15.9	14.5	24.3	21.2	17.9
Handicapped person in the household (Yes %)	6.9	5.3	4.6	6.7	4.2	4.0	7.5	6.8	5.7
Visited Michigan (%)[e]	61.1	75.9	79.0	63.1	75.3	77.8	58.5	79.3	84.5

[a]: The full sample including 1996, 1997, 1998, 2001 and 2002.

[b]: N values differ for different variables due to cases with missing values.

[c]: Those who provided valid responses for all 15 image items.

[d]: Those who provided valid responses for all variables included in the general population model.

[e]: The variable is included as a predictor variable in the multiple regression model.

all survey items. Michigan residents' tendency to complete the survey might come from their intimate familiarity with Michigan, their own state, or from the felt responsibility to comply due to patriotic feelings.

The white race group comprises the majority of the sample across all data periods; compared to the percentage in the all-years' data (84.1%), the percentage is slightly higher for the 1996-1997 and slightly lower for the 2001-2002 data (85.4% and 82.2%, respectively). The percentages of white respondents in the image-respondent and model-respondent subgroups are higher than that of the all-respondent groups across all data periods, which means white respondents were more likely to complete the interview with valid responses to all questionnaire items. This complies with findings in the methodology literature about white peoples' higher tendency to provide information about themselves over the phone as was discussed in Chapter 2.

With only slight differences across periods, the second highest race represented in the samples is black (about 6% for all periods). In general, percentages of Asian pacific, black, Hispanic and 'other' race groups decreased slightly in the image-respondent and model-respondent subgroups while the percentages of native American race group had slight increases in the image-respondent and model-respondent subgroups. This means that Asian Pacific, black, Hispanic and 'other' race groups were less likely to complete the survey with valid answers.

In terms of the employment status, the biggest group is the employed full-time group (about 60%), followed by the retired group (about 18%) across all periods. In the image-respondent and model-respondent subgroups, the percentages of full-time employed respondents have considerable increases while the percentages of retired

respondents have noticeable decreases. In other words, full-time employed respondents were more likely to complete the survey with valid responses while retired respondents were more likely to either quit or not give valid responses for all survey questions. Similarly, slight increases are observed in part-time employed respondents in the image-respondent and model-respondent subgroups across all data periods with some anomalies in the 2001-2002 data. In general, slight decreases are observed in the percentages of all other employment groups, except for the student group, across all data periods.

The percentages of female and male respondents are almost identical across all data periods (about 60% and 40%, respectively). Also, across all data periods, similar increases (about 6%) in male groups and similar decreases (about 6%) in female groups are observed in the image-respondent and model-respondent subgroups. This means that male respondents were more likely to complete the survey with valid responses for all survey questions.

Respondents who had above the median income ($31K for the initial years, $42K for the later years) comprise the majority of the sample across all data periods (about 66%). Their percentages in the image-respondent and model-respondent subgroups have considerable increases (between 5%-13%) across all data periods, meaning, they were more likely to complete the survey with valid responses to all questions. In contrast, comprising about 34% of the sample across all data periods, respondents who had income below the median were less likely to complete the questionnaire with valid responses to all questions since their percentages decrease about 10% in the image-respondent and model-respondent subgroups. Respondents who earned more than $50K/$65K ($50K for the initial years, $65K for the later years) annually comprise approximately 59% of the

sample across all data periods. Their percentage increases 3%-5% in the image-respondent group while it decreases 7%-13% in the model-respondent group across all data periods. These respondents were a little more likely to complete all 15 image items with valid responses but far less likely to stay until the end of the survey and provide valid responses for the variables included in the general population model.

On average, respondents are in their early 40s across all data periods, and the mean ages for the image-respondent and model-respondent subgroups are a little younger than that of the all-respondent group in each period except for the 2001-2002 period.

The average number of full-time wage earners in respondents' households is about 1.35 across all data periods; the number is slightly higher in the image-respondent and model-respondent subgroups across all periods. This coincides with the pattern in the employment and income variables. The more full-time wage earners and the higher the income (except for those who earn more than $50K during the initial years of the study and $65K during the later years of the study), the more likely they were to complete the survey with valid responses to all questions. This also complies with findings in the methodology literature about full-time employed and higher income people's tendency to cooperate in telephone surveys as was discussed in Chapter 2.

The average number of persons in respondents' households is about 2.86 across all data periods; it is a little higher in the image-respondent and model-respondent subgroups. In line with this is the pattern observed in respondents having pre-school children and/or school age children under age 18 in their households. Respondents having preschool children in their households are about 14% of the samples, and those having school age children under age 18 in their households is about 34% across all data periods.

The percentages of both of these types of respondents increase slightly in the image-respondent and model-respondent subgroups. Thus, the more people in the household and/or the more children in the household, the more they were likely to complete the survey with valid responses to all questions. This is also in line with the likelihood of the image-respondent and model-respondent subgroups' being younger than the all-respondent group across all data periods except for 2001-2002.

Those respondents who had a senior citizen in the household comprise about 25% of the sample across all periods with moderate decreases (3%-9%) in the percentages in the image-respondent and model-respondent subgroups. This is commensurate with the lower average age for the image-respondent and model-respondent subgroups across all data periods. It is commonly assumed that senior citizens are more likely to comply with surveyors due to their loneliness. This might be true in this study too since the average age of all respondents is a little higher than that of the model-respondents across all data periods. However, older respondents were more likely to comprise the cases with invalid responses, which were deleted listwise in the image-respondent and model-respondent subgroups. Similar percentage decreases in the image-respondent and model-respondent subgroups exist in the group of respondents who had a handicapped person in the household, which is about 7%.

Although it is not a demographic variable, the visitation variable is also included in this table since it is a key variable for the purposes of this study. This variable comprises those respondents who visited Michigan at some point in their life, for the most recent or less recent trip within the past 12 months, or before the past 12 months. Visitors comprised 61% of the respondents in the all-years' data, while this percentage

was 2% higher for the 1996-1997 data and 2.5% lower for the 2001-2002 data. The percentage of visitors is 12%-20% higher in the image-respondent group and 15%-25% higher in the model-respondent group across all data periods, meaning, respondents who have visited Michigan were far more likely to complete the survey with valid responses to all questions. As was proposed as an explanation for Michigan resident respondents' higher tendency to complete the survey with valid responses, visitors' tendency to complete the survey with valid responses could be due to their familiarity with Michigan. Non-visitors comprise about 25% of the image-respondent subgroup and about 20% of the model-respondent subgroup across all data periods.

As can be seen in the profiles of different respondent groups in Table 15, although it was necessary to perform the image and model analyses, the progressive elimination process in the image-respondent and general population model-respondent groups might have rendered these groups substantially different from the originally targeted random population of the study region. As was mentioned before, the all-respondents, image-respondent and model-respondent groups in Table 15 are not mutually exclusive; therefore, statistical tests could not be run on the differences between these groups. To gain a general understanding of the differences between these groups and potential bias in the image and model test results, the image-respondent and general population model-respondent groups were compared with two different groups of respondents: (1) respondents who provided partial response to the 15 image items (at least 1 but not all), thus, were deleted from the image analyses, and (2) respondents who provided full response to the 15 image items but partial response to the general population model-related variables, thus, were deleted from the model test analyses.

Comparison of Partial Image-Respondents with Full Image-Respondents and General Population Model-Respondents

About 5,500 respondents were excluded from the image analyses, thus, from the subsequent model test analyses because they did not provide a valid response to one or more of the 15 image items. To see if these respondents were different from the retained full image-respondent and general population model-respondent groups, comparative tests were applied for these groups in terms of selected sociodemographic characteristics and past travel behavior. Sociodemographics include: the state of residence, race, gender, age, employment status, household income, the type and number of people living in the household, and the number of full-time wage earners in the household. Past travel behavior variables include: the number of trips taken to any destination within the past 12 months, prior visitation to Michigan, and the number of trips to MI within the past 12 months. Their image of Michigan could not be compared since the partial image-respondent group does not have complete information on this item. The Chi-square test was used to compare different groups on nominal variables, and the t-test was used to compare different groups on continuous variables. The results of these comparisons are presented in Tables 16 and 17.

As can be seen in Tables 16 and 17, the partial image-respondent group is significantly different from both the full image-respondent and general population model-respondent groups for almost all variables. The differences between the partial image-respondent and full image-respondent groups are almost identical to those between the partial image-respondent and general population model-respondent groups, except for the differences in the presence of a handicapped person in the household. The partial image-

Table 16. Comparison of full image-respondents (n=5,485) and partial image-respondents (n=5,502).

Selected Variables	Full image respondents[a]	Partial image respondents[b]	Test statistics	α 2-Tailed
State of Residence (%)	n=5,485	n=5,502	χ^2=1050.688	0.000[c]
Illinois	17.1%	23.0%		
Indiana	9.0%	12.5%		
Michigan	36.6%	10.8%		
Ohio	18.2%	22.3%		
Wisconsin	8.7%	12.1%		
Ontario	10.4%	19.2%		
Race (%)	n=4,628	n=4,600	χ^2=45.638	0.000[c]
Native American	0.6%	0.5%		
Asian or Pacific	1.3%	1.2%		
Black	5.6%	4.1%		
Hispanic	1.2%	0.9%		
White	87.4%	86.6%		
Other	3.9%	6.7%		
Gender (%)	n=5,473	n=5,492	χ^2=67.479	0.000[c]
Male	44.0%	36.5%		
Female	55.9%	63.5%		
	n=4,375	n=4,003	t=-8.714	0.000[c]
Age	41.78	44.53		
Employment (%)	n=5,167	n=5,120	χ^2=121.106	0.000[c]
Employed full-time	66.0%	58.9%		
Employed part-time	9.4%	8.9%		
Retired	11.5%	18.7%		
Not employed	2.1%	2.3%		
Homemaker	4.9%	5.5%		
Student	4.3%	3.4%		
In some other employment situation	1.6%	2.2%		
	n=3,685	n=3,297	χ^2=31.776	0.000[c]
Total household income above the median income - $31K for '96-'97, $42K for '01-'02 (Yes%)	77.4%	72.3%		
	n=2,270	n=1,893	χ^2=8.925	0.012[d]
Total household income above $50K for '96-'97, $65K for '01-'02 (Yes%)	64.6%	61.2%		
	n=789	n=639	χ^2=17.578	0.000[c]
Pre-school child in the household (Yes%)	15.2%	12.4%		
	n=1,969	n=1,649	χ^2=41.891	0.000[c]
School-age child under age 18 in the household (Yes%)	37.9%	32.0%		
	n=923	n=1,301	χ^2=84.855	0.000[c]
Senior citizen in the household (Yes%)	17.8%	25.2%		
	n=273	n=320	χ^2=5.300	0.071
Handicapped person in the household (Yes%)	5.3%	6.2%		
	n=5,174	n=5,137	t=4.473	0.000[c]
Number of people in the household (Mean #)	2.97	2.83		
	n=5,152	n=5,076	t=5.086	0.000[c]
Number of full-time wage earners in the household (Mean #)	1.50	1.39		
	n=5,406	n=5,346	t=2.171	0.030[d]
Number of trips taken in the past 12 months (Mean #)	4.49	4.25		
	n=3,968	n=3,244	χ^2=219.149	0.000[c]
Visited Michigan (Yes%)	75.9%	62.5%		
	n=1,578	n=706	t=7.401	0.000[c]
Number of trips taken in MI in the past 12 months (Mean #)	3.26	2.52		

[a]: Responded to all 15 image items.

[b]: Responded to at least one image item but not all.

[c]: Statistically significant at 99% level ($p<0.01$).

[d]: Statistically significant at 95% level ($p<0.05$).

Table 17. Comparison of general population model-respondents (n=3,554) and partial image-respondents (n=5,502).

Selected Variables	Model respondents[a]	Partial image respondents[b]	Test statistics	α 2-Tailed
State of Residence (%)	n=3,554	n=5,502	χ^2=861.493	0.000[c]
Illinois	17.9%	23.0%		
Indiana	9.4%	12.5%		
Michigan	35.6%	10.8%		
Ohio	18.3%	22.3%		
Wisconsin	9.3%	12.1%		
Ontario	9.4%	19.2%		
Race (%)	n=3,554	n=4,600	χ^2=43.843	0.000[c]
Native American	0.7%	0.5%		
Asian or Pacific	1.3%	1.2%		
Black	4.8%	4.1%		
Hispanic	1.0%	0.9%		
White	88.8%	86.6%		
Other	3.4%	6.7%		
Gender (%)	n=3,554	n=5,492	χ^2=54.241	0.000[c]
Male	44.2%	36.5%		
Female	55.8%	63.5%		
	n=3,554	n=4,003	t=-9.524	0.000[c]
Age	41.40	44.53		
Employment (%)	n=3,544	n=5,120	χ^2=166.189	0.000[c]
Employed full-time	68.6%	58.9%		
Employed part-time	9.8%	8.9%		
Retired	9.4%	18.7%		
Not employed	1.8%	2.3%		
Homemaker	5.2%	5.5%		
Student	4.0%	3.4%		
In some other employment situation	1.4%	2.2%		
	n=2,868	n=3,297	χ^2=77.131	0.000[c]
Total household income above the median income - $31K for '96-'97, $42K for '01-'02 (Yes%)	80.7%	72.3%		
	n=1,805	n=1,893	χ^2=15.683	0.000[c]
Total household income above $50K for '96-'97, $65K for '01-'02 (Yes%)	66.0%	61.2%		
	n=559	n=639	χ^2=20.130	0.000[c]
Pre-school child in the household (Yes%)	15.7%	12.4%		
	n=1,367	n=1,649	χ^2=40.937	0.000[c]
School-age child under age 18 in the household (Yes%)	38.5%	32.0%		
	n=546	n=1,301	χ^2=122.479	0.000[c]
Senior citizen in the household (Yes%)	15.4%	25.2%		
	n=165	n=320	χ^2=11.294	0.004[c]
Handicapped person in the household (Yes%)	4.6%	6.2%		
	n=3,552	n=5,137	t=4.504	0.000[c]
Number of people in the household (Mean #)	2.99	2.83		
	n=3,543	n=5,076	t=6.255	0.000[c]
Number of full-time wage earners in the household (Mean #)	1.53	1.39		
	n=3,554	n=5,346	t=7.931	0.000[c]
Number of trips taken in the past 12 months (Mean #)	5.24	4.25		
	n=2,808	n=3,244	χ^2=269.706	0.000[c]
Visited Michigan (Yes%)	79.0%	62.5%		
	n=1,302	n=706	t=6.969	0.000[c]
Number of trips taken in MI in the past 12 months (Mean #)	3.23	2.52		

[a]: Responded to all general population variables including 15 image items.

[b]: Responded to at least one image item but not all.

[c]: Statistically significant at 99% level ($p<0.01$).

respondents were less likely to be Michigan residents, but more likely to be Ontario residents. They were more likely to identify themselves as 'other' race groups, which is usually how Ontario residents reply in this study. Also, partial image-respondents were more likely to be female, retired, older on average, with fewer number of people living in the household, and less household income. In addition, partial image-respondents had fewer trips on average not only to any destination but also to Michigan within the past 12 months, being less likely to have visited Michigan before. In other words, both full image-respondent and general population model-respondent groups were more likely to be younger, residents of Michigan, with above-the-median incomes, and more experienced and more familiar with Michigan due to previous visitation to Michigan. However, these differences in the profiles of excluded and retained groups of respondents do not assure bias in the results of image analyses and model test analyses of this study since it is not known if the excluded respondents' image of Michigan was significantly different from that of the retained respondents.

Comparison of Full Image but not Model-Respondents with General Population Model-Respondents

To search for evidence of differences in Michigan's image between the excluded and the retained respondents, another comparison was conducted between the general population model-respondent group and respondents who provided full response to the 15 image items but not to the general population model-related variables (n=1,930). The results of these comparisons are presented in Table 18.

Table 18. Comparison of general population model-respondents (n=3,554) and full image but not model-respondents (n=1,930).

Selected Variables	Model respondents[a]	Full image but not model resp.[b]	Test statistics	α 2-Tailed
State of Residence (%)	n=3,554	n=1,930	χ^2=21,091	0.001[c]
Illinois	17.9%	15.5%		
Indiana	9.4%	8.3%		
Michigan	35.6%	38.4%		
Ohio	18.3%	18.0%		
Wisconsin	9.3%	7.6%		
Ontario	9.4%	12.1%		
Race (%)	n=3,554	n=1,073	χ^2=32,414	0.000[c]
Native American	0.7%	0.6%		
Asian or Pacific	1.3%	1.3%		
Black	4.8%	8.0%		
Hispanic	1.0%	1.9%		
White	88.8%	82.9%		
Other	3.4%	5.4%		
Gender (%)	n=3,554	n=1,920	χ^2=3.810	0.149
Male	44.2%	43.7%		
Female	55.8%	56.2%		
	n=3,554	n=821	t=-3.808	0.000[c]
Age	41.40	43.45		
Employment (%)	n=3,544	n=1,621	χ^2=71.145	0.000[c]
Employed full-time	68.6%	60.6%		
Employed part-time	9.8%	8.8%		
Retired	9.4%	16.2%		
Not employed	1.8%	2.8%		
Homemaker	5.2%	4.4%		
Student	4.0%	5.2%		
In some other employment situation	1.4%	2.0%		
	n=2,868	n=817	χ^2=88.700	0.000[c]
Total household income above the median income - $31K for '96-'97, $42K for '01-'02 (Yes%)	80.7%	67.6%		
	n=1,805	n=465	χ^2=11.258	0.004[c]
Total household income above $50K for '96-'97. $65K for '01-'02 (Yes%)	66.0%	59.6%		
	n=559	n=230	χ^2=2.384	0.123
Pre-school child in the household (Yes%)	15.7%	14.1%		
	n=1,367	n=601	χ^2=1.823	0.402
School-age child under age 18 in the household (Yes%)	38.5%	36.8%		
	n=546	n=378	χ^2=45.905	0.000[c]
Senior citizen in the household (Yes%)	15.4%	23.1%		
	n=165	n=108	χ^2=9.166	0.010[c]
Handicapped person in the household (Yes%)	4.6%	6.6%		
	n=3,552	n=1,622	t=1.131	0.258
Number of people in the household (Mean #)	2.99	2.93		
	n=3,543	n=1,609	t=2.552	0.011[d]
Number of full-time wage earners in the household (Mean #)	1.53	1.45		
	n=3,554	n=1,852	t=13.923	0.000[c]
Number of trips taken in the past 12 months (Mean #)	5.24	3.05		
	n=2,808	n=1,160	χ^2=59.422	0.000[c]
Visited Michigan (Yes%)	79.0%	69.2%		
	n=1,302	n=277	t=-0.953	0.341
Number of trips taken in MI in the past 12 months (Mean #)	3.23	3.37		
	n=3,554	n=1,930	t=1.405	0.160
Mean image score	7.50	7.43		

[a]: Responded to all general population variables including 15 image items.

[b]: Responded to all 15 image items but not all of the general population-related variables.

[c]: Statistically significant at 99% level ($p<0.01$).

[d]: Statistically significant at 95% level ($p<0.05$).

The same sociodemographic variables, past travel behavior variables as well as the Michigan image were used in comparing these groups. The Chi-square test was used to compare these groups on nominal variables, and t-test was used to compare these groups on continuous variables.

As can be seen in Table 18, full image but not model-respondents are significantly different from the general population model-respondents in most of the selected criteria (11 out of 17 variables). Similar to the partial image-respondents, these respondents were older on average, more likely to be retired with fewer people living in the household and less likely to have above the median or above $50K/$65K household income. However, surprisingly, these residents were more likely to be Michigan and Ontario residents. Since the difference between the images of these two groups of respondents is not statistically significant, there isn't enough evidence for the hypothesis of whether or not the excluded and retained respondents had different images of Michigan. The results are inconclusive and this hypothesis cannot be resolved with the available information.

Comparison of Different Races

As can be seen in Table 15, the white race group comprises the majority of the respondents in the image-respondents and general population model-respondents groups. The Census Bureau's (2001) data for the Census 2000 was checked for the distribution of different races in the US states in the study region (Ontario was excluded due to unavailable census data). Racial distributions in the US Census data along with different groups utilized in the analyses of this study are provided in Table 19. As can be seen from the table, Asian Pacific and black race groups are slightly under-represented and the

Table 19. Racial distribution in the study region in the US Census 2000 data and racial distribution in different groups utilized in the analyses of the study.

	Native American				Asian or Pacific				Black				White				Other[a]			
	Census	All[b]	Image[c]	Model[d]	Census	All[b]	Image[c]	Model[d]	Census	All[b]	Image[c]	Model[d]	Census	All[b]	Image[c]	Model[d]	Census	All[b]	Image[c]	Model[d]
Illinois	**0.6**	0.1	-	-	**3.9**	2.1	2.4	2.5	**15.6**	8.3	6.8	5.5	**75.1**	83.4	85.9	88.3	6.8	6.1	5.0	3.6
Indiana	**0.6**	0.7	0.5	0.6	**1.3**	0.4	0.5	0.3	**8.8**	4.2	4.3	3.6	**88.6**	90.3	90.9	92.8	2.0	4.5	3.9	2.7
Michigan	**1.3**	0.6	0.6	0.7	**2.2**	1.0	1.0	1.0	**14.8**	8.5	7.4	6.4	**81.8**	85.0	86.5	87.9	2.0	4.9	4.5	4.0
Ohio	**0.7**	0.2	0.2	0.3	**1.5**	0.6	0.6	0.6	**12.1**	7.1	5.5	5.2	**86.1**	87.4	90.8	91.4	1.1	4.7	2.9	2.4
Wisconsin	**1.3**	0.9	1.5	1.5	**2.0**	0.6	0.2	0.3	**6.1**	2.4	2.2	1.8	**90.0**	91.9	92.8	93.7	2.0	4.1	2.3	2.7
Ontario[e]	-	1.1	2.3	1.5	-	3.5	3.2	3.3	-	2.0	0.5	0.6	-	71.2	79.2	79.7	-	22.3	14.9	14.9
Total		0.5	0.6	0.7		1.5	1.3	1.3		5.9	5.6	4.8		84.1	87.5	88.8		8.0	5.1	4.5

[a]: Hispanic race group is added to the 'other' in the study data since Census data doesn't treat Hispanic origin as a race group

[b]: The full sample including 1996, 1997, 1998, 2001, and 2002 with which the study hypotheses are tested.

[c]: Those respondents in the full sample who provided valid responses for all 15 image items.

[d]: Those respondents in the full sample who provided valid responses for all variables included in the general population model.

[e]: Census data on Ontario's racial distribution is not available.

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white race group is over-represented, especially in the image-respondent and model-respondent subgroups compared to their proportion in the Census data in each state. The 'other' race group in the study data also includes the Hispanic race group; this modification was conducted since Census data did not treat Hispanic origin as a racial category. The 'other' race group in each state is also slightly over-represented in the study except for Illinois.

These other race groups might be different from the white group in terms of other sociodemographic characteristics, such as employment status, education and income level, which can influence their travel behavior and ultimately the nature of their responses to the Michigan image questions. Therefore, comparative tests were applied for different race groups in terms of other selected sociodemographic characteristics, past travel behavior, and their image of Michigan. The Chi-square test was used to compare different race groups on nominal variables. One-way ANOVA test was used to compare different race groups on continuous variables. The results of these comparisons are presented in Table 20.

As can be seen in Table 20, respondents were grouped into five major races and the "other" category, which embodied minority race groups. These race groups were compared on nine selected sociodemographic variables, namely employment status, household income, the type and number of people living in the household, and the number of full-time wage earners in the household. Different races were found to be significantly different from one another in terms of all of these sociodemographic characteristics at the 99% confidence level.

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Table 20. Comparison of different races on selected variables.

Selected Variables	Native American	Asian or Pacific	Black	Hispanic	White	Other	Test statistics	α 2-Tailed
Employment	n=89	n=241	n=940	n=256	n=13,583	n=1,034	χ^2=406.825	0.000*
Employed full-time	60.7%	55.6%	61.4%	67.2%	58.8%	48.6%		
Employed part-time	13.5%	10.4%	7.6%	9.0%	9.3%	9.1%		
Retired	7.9%	2.5%	12.7%	2.3%	17.8%	26.0%		
Not employed	2.2%	4.1%	6.0%	6.6%	2.9%	3.5%		
Homemaker	4.5%	3.7%	3.2%	4.3%	5.7%	5.8%		
Student	6.7%	20.3%	6.8%	7.0%	3.5%	4.2%		
In some other emp. situation	4.5%	3.3%	2.4%	3.5%	2.0%	2.8%		
Total household income above the median income (Yes%)	n=43 51.2%	n=146 69.9%	n=478 56.8%	n=132 59.7%	n=8,490 69.2%	n=481 57.1%	χ^2=118.720	0.000*
Total household income above $50,000 (Yes%)	n=23 57.5%	n=86 61.9%	n=257 56.2%	n=64 49.6%	n=4,773 59.4%	n=261 59.5%	χ^2=26.210	0.003*
Pre-school child in the household (Yes%)	n=17 19.1%	n=48 19.9%	n=180 18.9%	n=62 24.2%	n=1,882 13.8%	n=144 13.8%	χ^2=47.532	0.000*
School-age child under age 18 in the household (Yes%)	n=33 37.1%	n=110 45.6%	n=445 46.7%	n=124 48.2%	n=4,573 33.5%	n=354 34.1%	χ^2=119.025	0.000*
Senior citizen in the household (Yes%)	n=18 20.2%	n=46 19.1%	n=231 24.3%	n=33 12.8%	n=3,245 23.8%	n=352 33.9%	χ^2=76.488	0.000*
Handicapped person in the household (Yes%)	n=15 17.0%	n=16 4.2%	n=107 11.2%	n=19 7.5%	n=860 6.3%	n=96 9.3%	χ^2=77.682	0.000*
Number of people in the household (Mean #)	n=89 3.07	n=242 3.64	n=952 3.07	n=257 3.56	n=13,609 2.85	n=1,032 2.87	f=24.786	0.000*
Number of full-time wage earners in the household (Mean #)	n=86 1.55	n=237 1.68	n=929 1.48	n=255 1.62	n=13,512 1.38	n=1,016 1.21	f=13.501	0.000*
Number of trips taken in the past 12 months (Mean #)	n=70 4.21	n=173 3.40	n=650 2.70	n=152 2.88	n=10,625 4.21	n=736 3.29	f=14.402	0.000*
Visited Michigan (Yes%)	n=37 52.9%	n=67 38.7%	n=339 52.2%	n=65 42.8%	n=6,817 64.0%	n=351 47.8%	χ^2=173.935	0.000*
Number of trips taken in MI in the past 12 months (Mean #)	n=13 3.07	n=14 3.24	n=95 2.28	n=16 2.91	n=2,070 3.03	n=87 2.90	f=2.203	0.052
Mean image score	n=30 7.40	n=59 6.62	n=257 7.10	n=55 6.91	n=4,047 7.57	n=180 7.13	f=11.224	0.000*

* : The difference is significant at 99% level ($p < .01$).

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Three past travel behavior variables, which were assumed to be key variables in terms of their influence on destination image were also included in comparing different race groups: the number of pleasure trips in the past 12 months, prior visitation to Michigan, and the number of pleasure trips taken in Michigan in the past 12 months. Different race groups were compared on these variables and found to be significantly different on two of these variables: the number of pleasure trips in the past 12 months, and whether or not they visited Michigan at all. These race groups were equally likely to have visited Michigan sometime in their lifetime. Different race groups were also compared in terms of their images of Michigan and found to have significantly different images of Michigan. These findings introduce the possibility of bias towards the white race group in the results of the general population model of this study.

The Recent Visitor Group Profile

As was explained in Chapter 3, respondents who visited Michigan during their most recent trip within the past 12 months (1,723) and respondents who visited Michigan during another trip within the past 12 months (1,415) were combined in a different file; thus, the size of this sample is 3,138. However, as was mentioned before, if a state code was not assigned for a case, it was discarded due to the weighting by state process that was used. This resulted in a sample size of 2,903 for all recent visitor respondents in the all-years' data. In Table 21, sample sizes for different demographic variables vary due to cases with missing values for some demographic variables. The visitation variable is not included since all respondents in this group are recent Michigan visitors.

Table 21. The descriptives and frequencies of recent visitor respondents' demographics for different time frames and subgroups

Demographic Variables	All-years[a] (n=1,949-2,903)[b]			1996-1997 (n=972-1,407)[b]			2001-2002 (n=596-933)[b]		
	All	Image resp.[c] (n=1,770)[b]	Model resp.[d] (n=1,271)[b]	All	Image resp.[c] (n=890)[b]	Model resp.[d] (n=510)[b]	All	Image resp.[c]	Model resp.[d]

Table 21. The descriptives and frequencies of recent visitor respondents' demographics for different time frames and subgroups.

Demographic Variables	All-years[a] (n=1,949-2,903)[b]			1996-1997 (n=972-1,407)[b]			2001-2002 (n=596-933)[b]		
	All	Image resp.[c] (n≤1,770)[b]	Model resp.[d] (n≤1,271)[b]	All	Image resp.[c] (n≤890)[b]	Model resp.[d] (n≤730)[b]	All	Image resp.[c] (n≤527)[b]	Model resp.[d] (n≤347)[b]
State of Residence (%)[e]									
Illinois	13.8	10.1	9.9	13.8	9.6	9.9	13.0	8.4	6.0
Indiana	9.3	7.4	7.9	9.4	8.0	8.9	9.3	7.2	7.1
Michigan	48.0	60.8	61.4	47.1	58.5	58.0	50.0	67.8	71.3
Ohio	14.2	11.0	10.6	14.1	11.8	12.0	14.1	9.4	7.8
Wisconsin	7.2	5.8	5.4	8.3	6.7	6.3	5.6	3.4	3.2
Ontario	7.5	4.9	4.8	7.3	5.4	4.9	8.0	3.8	4.6
Race Group (%)[e]									
Native American	0.6	0.7	0.7	0.5	0.6	0.7	0.8	1.0	1.0
Asian Pacific	0.6	0.7	0.7	0.6	0.7	0.8	0.6	0.7	0.2
Black	4.3	4.3	4.0	5.2	5.4	5.2	3.0	3.0	2.2
Hispanic	0.7	0.8	0.7	0.8	0.9	0.8	0.8	1.0	1.0
White	90.0	90.3	91.2	90.5	90.4	90.8	89.6	89.5	91.3
Other	3.8	3.1	2.7	2.4	2.0	1.7	5.3	4.8	4.3
Employment (%)									
Full-Time	63.9	66.6	67.8	65.0	67.4	68.1	61.3	64.1	65.4
Part-Time	8.8	9.2	9.2	9.6	9.7	10.0	7.8	7.8	8.0
Retired	14.3	11.5	10.6	12.3	9.7	9.0	18.5	16.9	16.1
Unemployed	2.2	1.7	2.0	1.7	1.2	1.3	2.1	1.3	1.7
Homemaker	5.5	5.3	5.3	6.0	5.5	5.4	4.9	5.0	5.8
Student	3.4	3.9	3.4	3.9	5.0	4.6	3.0	2.5	1.2
Other	1.9	1.8	1.5	1.7	1.5	1.5	2.4	2.4	1.6
Gender (%)[e]									
Male	39.6	41.5	42.4	41.2	43.4	44.3	37.8	40.3	40.9
Female	60.4	58.5	57.6	58.8	56.6	55.7	62.2	59.7	59.1
Annual Income (%)[e]									
Above median (\$31K for '96-'97 / \$42K for '01-'02)	77.7	79.2	80.5	78.7	79.9	80.8	74.1	75.4	75.6
Below median *(\$31K for '96-'97 / \$42K for '01-'02)*	22.3	20.8	19.5	21.3	20.1	19.2	25.9	24.6	24.4
More than *\$50K for '96-'97 / \$65K for '01-'02* (%)	65.0	65.5	50.9	64.9	64.5	50.7	62.3	65.2	47.1
Age (Mean Years)[e]	43.1	42.1	42.0	41.9	40.6	40.5	45.8	45.7	45.8
Full Time Wage-earners (Mean #)	1.48	1.52	1.51	1.50	1.54	1.52	1.44	1.44	1.44
Number of persons in the household (Mean #)	2.90	2.97	2.97	2.91	2.98	2.95	2.88	2.96	3.01
Pre-school child in the household (Yes %)	13.5	14.6	14.3	14.1	15.1	14.4	12.4	13.8	14.3
School-age child under age 18 in the household (Yes %)	34.7	37.6	38.0	34.9	37.5	37.4	34.7	37.8	40.3
Senior citizen in the household (Yes %)	20.2	16.7	15.6	18.1	15.6	14.9	24.0	21.1	19.0
Handicapped person in the household (Yes %)	5.1	4.4	4.5	4.2	3.0	3.1	6.1	5.9	6.8

[a]: The full sample including 1996, 1997, 1998, 2001 and 2002.

[b]: N values differ for different variables due to cases with missing values.

[c]: Those who provided valid responses for all 15 image items.

[d]: Those who provided valid responses for all variables included in the recent visitor segment model.

[e]: The variable is included as a predictor variable in the multiple regression.

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As can be seen in Table 21, in the recent visitor group, Michigan respondents make up about half of the sample across all data periods (48.0% for all-years, 47.1% for 1996-1997, and 50.0% for 2001-2002). Ohio and Illinois, which had the highest percentages in the mixed sample, come in as the second and third biggest recent visitor groups, having almost identical percentages across all data periods (14.2% and 13.8%, respectively). Indiana, which has one of the lowest percentages in the mixed sample, has higher percentage of visitors than both Wisconsin and Ontario across all data periods (about 9%). Having similar percentages across all data periods, Wisconsin and Ontario respondents comprise the smallest groups in the recent visitor group with a moderate decrease in the percentage of Wisconsin respondents in the 2001-2002 data.

As in the mixed sample, in the image-respondent and model-respondent subgroups of the recent visitor group, the percentages of all states decrease about 2-5% except for Michigan's, which increases over 10% across all data periods. Recent visitor respondents from other states were more likely not to complete the survey with valid answers to all questions, while recent visitor respondents from Michigan were more likely to complete the questionnaire with valid responses to all questions.

As in the mixed sample, the white race group comprises the majority (about 90%) in the recent visitor group across all data periods. The percentages of white recent visitors across all data periods are a little over 5% higher than those of the mixed sample while the percentages of all other race groups are smaller than those of the mixed sample, which means white people were more likely to be recent visitors Michigan. The percentages of white recent visitor respondents in the image-respondent and model-respondent subgroups are about the same, which means that almost all white recent

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visitor respondents provided valid responses for all image and model variables. As in the mixed sample, the second highest race group represented in the recent visitor group across all periods is black (between 3%-5%). Percentages of other race groups more or less remained the same in the image-respondent and model-respondent subgroups except for the 'other' race group, which incurred slight decreases. The distribution of races in the recent visitor group is more or less similar to that of the Michigan visitors from the Midwestern states reported by the U.S. Department of Transportation, Bureau of Transportation Statistics (1995), which is: White=95.5%, Black=3.7%, Native American=0.3%, Asian or Pacific=0.3% and Other=0.2%.

As in the mixed sample, full-time employed respondents comprise the biggest group in the recent visitor group (a little over 60%); its percentages are slightly higher than those of the mixed sample across all data periods. Thus, full-time employed respondents were more likely to be recent visitors to Michigan. The second biggest group is retired respondents (14.3% for the all-years' data, 12.3% for the 1996-1997 data, and 18.5% for the 2001-2002 data). However, the percentages of retired recent visitors are a little smaller than those of the mixed sample except for that of the 2001-2002 data, which is about the same. This means retired respondents were less likely to be recent Michigan visitors until 2001-2002. As in the mixed sample, retired recent visitor respondents' percentages drop about 2%-3% in the image-respondent and model-respondent subgroups across all data periods. Slight increases are observed in the percentages of part-time employed and student recent visitor respondents in the image-respondent and model-respondent subgroups across all data periods except for a little drop in student respondents in the 2001-2002 data. Slight decreases in other employment groups are

observed in the image-respondent and model-respondent subgroups, except for the homemaker recent visitor respondents in the 2001-2002 data, which remains about the same in the image-respondent subgroup and increases a little in the model-respondent subgroup.

The pattern in the gender variable for the recent visitor group is the same as that of the mixed sample: a 40/60 male to female ratio, with male respondents' being more likely to complete the survey with valid responses to all questions across all data periods. Similar to the mixed sample, recent visitor respondents who had above the median income ($31K for the initial years, $42K for the later years) comprise the majority of the sample across all data periods (77.7% for the all-years' data, 78.7% for the 1996-1997 data, and 74.1% for the 2001-2002 data). These percentages are about 10% more than those of the mixed sample across all data periods. Similarly, the percentages of recent visitor respondents who had more than $50K/$65K annual income are about 3% higher than those of the mixed sample while the percentages of recent visitor respondents who had below the median income are about 10% less than those of the mixed sample. Not surprisingly, respondents with above the median income were more likely to be recent visitors to Michigan. As was observed in the mixed sample, there are slight decreases in the percentages of the lower income recent visitor respondents and slight increases in the percentages of higher income recent visitor respondents in the image-respondent and model-respondent subgroups, with the exception of those who earn more than $50K/$65K which remain the same in the image-respondent subgroup but decrease about 15% in the model-respondent subgroup. Except for those recent visitors with more than $50K/$65K annual income, recent visitors were more likely to complete the survey with

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valid responses to all questions regardless of their income level since differences between different subgroups can be ignored.

The average age of recent visitor respondents is close to that of the mixed sample across all time periods: early 40s. There is a slight decrease in the mean age of the image-respondent and model-respondent subgroups in the all-years' and 1996-1997 data, but there is a slight increase in the 2001-2002 data. This means that until 2001-2002, recent visitor respondents who completed the survey with valid responses tended to be slightly younger than those who terminated the survey or gave invalid responses to some questions, while the opposite case existed in 2001-2002.

The average number of full-time wage earners in the recent visitor respondents' households is a little higher than those of the mixed sample across all data periods (about 1.45), with the difference being smaller in the 2001-2002 data. A similar pattern exists in the average number of persons in the households of recent visitor respondents (about 2.90). As in the mixed sample, the average number of persons in the households of recent visitor respondents is slightly higher in the image-respondent and model-respondent subgroups (about 2.97); the same pattern exists in the average number of full-time wage earners in the households of recent visitor respondents except for the 2001-2002 data period, which is identical across all groups.

The percentages of recent visitor respondents having pre-school children in their households are similar to those of the mixed sample across all data periods (about 13%). The percentage of recent visitor respondents having school age children under age 18 in their households is almost identical to those of the mixed sample (about 34%) across all data periods. There are slight increases in the percentages of recent visitor respondents

who had pre-school children in their households in the image-respondent and model-respondent subgroups; however, increases in the percentage of recent visitor respondents having school age children under age 18 in their households in the image-respondent and model-respondent subgroups are moderately high, meaning, these types of recent visitor respondents were more likely to complete the survey with valid responses.

The percentage of recent visitor respondents who had a senior citizen in their households in 2001-2002 is almost identical to that of the mixed sample (about 24%), but the percentages for other periods are about 4% smaller than those of the mixed sample. The percentages of recent visitor respondents who had a handicapped person in their households are about 1.5% smaller than those of the mixed sample across all data periods. In general, these types of respondents were less likely to be recent visitors to Michigan and less likely to complete the survey with valid responses since their percentages are slightly smaller in the image-respondent and model-respondent subgroups.

EFA Two-Factor Model

In this section, image items are described for different groups and sampling periods, and possible explanations for observed differences and similarities are presented. Finally, image item correlations are provided followed by the results of exploratory factor analysis.

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Image Item Descriptions

Since each image item is a relatively long sentence, each was converted to a single word or a couple of words as a convenience. The conversions used for each item are presented in Table 22. The 15 image items along with their corresponding means and standard deviations are presented in Table 23. Since validation analyses were conducted for the initial (1996-1997) and later (2001-2002) study periods, means and standard deviations for each data period are also provided.

Table 22. Image items and corresponding notations.

Image Item	Notation
Is close enough for a weekend getaway	getaway
Has many interesting museums	museums
Is great for summer outdoor recreation activities	summer rec.
Is an exciting place to visit	exciting
Has a lot of high quality lodging	lodging
Offers much scenic appeal	scenic
Is great for winter outdoor recreation activities	winter rec.
Is a good place to meet friendly people	friendly
Is a place everyone should visit at least once in their lifetime	must visit
Is a safe place to visit	safe
Offers exciting nightlife and entertainment	nightlife
Is a great place for a family vacation	family place
Is a popular destination with vacationers	popular place
Has many interesting historic sites	historic
Offers an excellent vacation value for the money	value

Table 23. Image item descriptive statistics for different sampling periods.

	All-years* (n=5,485)		1996-1997 (n=2,579)		2001-2002 (n=1,597)	
Item	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
getaway	8.12	2.63	8.24	2.62	7.89	2.52
museums	6.49	2.62	6.14	2.63	7.32	2.46
summer rec.	8.09	2.16	8.13	2.17	8.04	2.14
exciting	7.15	2.33	7.09	2.39	7.34	2.20
lodging	7.36	2.21	7.22	2.26	7.76	2.06
scenic	8.19	2.08	8.17	2.10	8.27	2.04
winter rec.	7.89	2.27	7.91	2.31	7.99	2.15
friendly	7.58	2.25	7.42	2.28	8.02	2.13
must visit	8.06	2.40	8.06	2.46	8.10	2.23
safe	7.34	2.26	7.27	2.30	7.38	2.18
nightlife	6.62	2.33	6.38	2.31	7.17	2.27
family place	7.82	2.22	7.88	2.23	7.73	2.17
popular place	7.03	2.36	6.99	2.40	7.15	2.24
historic	7.05	2.27	6.96	2.32	7.29	2.13
value	7.32	2.20	7.32	2.20	7.38	2.13

* : The full sample including 1996, 1997, 1998, 2001 and 2002, with which the study hypotheses are tested.

The independent samples t-test was conducted to test for the differences between the Michigan images for the initial (1996-1997) and later (2001-2002) study periods. The results of these analyses are presented in Table 24. The cases involved in these analyses comprise the image-respondent group, which includes those respondents who provided valid responses for all the 15 image items.

Table 24. Results of the independent samples t-test on the differences between the initial (1996-1997) and later (2001-2002) years of the study.

	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
getaway	.084	.772	4.217	4174	.000[a]	-0.35	0.0822
museums	8.522	.004[a]	-14.437	4174	.000[a]	1.18	0.0817
summer rec.	.004	.950	1.294	4174	.196	-0.089	0.0688
exciting	17.349	.000[a]	-3.289	4174	.001[a]	0.24	0.0738
lodging	25.206	.000[a]	-7.821	4174	.000[a]	0.54	0.0695
scenic	2.784	.095	-1.468	4174	.142	0.0972	0.0662
winter rec.	17.646	.000[a]	-1.217	4174	.224	0.0872	0.0716
friendly	24.664	.000[a]	-8.428	4174	.000[a]	0.60	0.0709
must visit	25.497	.000[a]	-.578	4174	.563	0.0437	0.0757
safe	2.909	.088	-1.590	4174	.112	0.11	0.0718
nightlife	2.417	.120	-10.776	4174	.000[a]	0.79	0.0730
family place	.597	.440	2.027	4174	.043[b]	-0.14	0.0703
popular place	8.450	.004[a]	-2.191	4174	.029[b]	0.16	0.0746
historic	17.703	.000[a]	-4.615	4174	.000[a]	0.33	0.0716
value	2.377	.123	-.884	4174	.377	0.0611	0.0691

[a]: Statistically significant at 99% level ($p<0.01$).
[b]: Statistically significant at 95% level ($p<0.05$).

As can be seen from Table 23, Michigan holds a positive image across all data periods, having mean scores above six for all image attributes on a 10-point scale. For the all-years' data (1996, 1997, 1998, 2001, 2002), the lowest mean score is on the 'museums' attribute (6.49), and the highest mean score is on the 'scenic' attribute (8.19). The attribute with the highest variation in scores is the 'getaway' attribute with a standard deviation of 2.63, closely followed by the 'museums' attribute (2.62). The lowest standard deviation (2.08) is associated with the 'scenic' attribute.

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Examining mean ratings and standard deviations in ratings of each attribute for the initial (1996-1997) and later data periods (2001-2002) reveals some similarities and differences as can be seen in Table 23. In the 1996-1997 data, the strongest attribute is 'getaway' (8.24) and the weakest attribute is 'museums' (6.14). The highest standard deviation belongs to the 'museums' attribute (2.63), closely followed by the 'getaway' attribute (2.62). The lowest variation is still in the 'scenic' attribute with the lowest standard deviation (2.10).

There is a slight change in the most popular and the least popular image attributes of Michigan in the 2001-2002 data. The most popular image attribute is still the 'scenic' attribute with the highest mean score of them all (8.27); however, the least popular image item is the 'popular place' attribute with a mean score of 7.15. The image attributes with the highest and lowest score variation are the same as those for the all-year data: the highest standard deviation belongs to the 'getaway' attribute (2.52) closely followed by the 'museums' attribute (2.46), and the lowest standard deviation belongs to the 'scenic' attribute (2.04).

In general, Michigan has been perceived strong in terms of scenic appeal; however, perceptions of its weaknesses have changed. The weakest image attribute was 'museums' in the initial period of the study, while the 'popular place' attribute ranks last during the later period. As can be seen in Table 24, when the mean image scores are compared between the initial (1996-1997) and later (2001-2002) periods, it seems that Michigan's image has generally improved over the 5-year period. An increase is observed in the majority of the image attributes in 2001-2002 data except for the 'getaway', 'summer rec.', and 'family place' attributes. The difference between initial

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and later study periods is statistically significant for nine out of 15 attributes; namely, 'getaway'(-), 'museums', 'exciting', 'lodging', 'friendly', 'nightlife', 'family place'(-), 'popular place', and 'historic'. Also, statistically significant decreases are observed in the standard deviation of eight attributes: 'museums', 'exciting', 'lodging', 'winter rec.', 'friendly', 'must visit', 'popular place', and 'historic'. This is an indicator that Michigan's image of these attributes is stabilizing and crystallizing in the minds of respondents.

Comparison of Visitors'[1] and Non-visitors'[2] Images

It was suspected that the improvement in Michigan's image could be due to the increasing portion of visitors in the image-respondent subgroup of the sample over the 5-year period. As was presented in Table 15, the portion of visitors in the image-respondent subgroup is 75.3% in the 1996-1997 data, while it increased to 79.3% in the 2001-2002 data. To see if the improvement in image could be due to the increase in the visitor representation in the image-respondent group, visitors and non-visitors were also compared by using the independent samples t-test. This was performed to see if there is a statistically significant difference between their perceptions of Michigan. Mean scores and standard deviations for these two groups are presented in Table 25. The results of the independent samples t-test are presented in Table 26.

As can be seen in Table 25, the most popular and least popular image attributes of Michigan are the same for both groups, 'scenic' being the most popular (8.54 for visitors, 7.15 for non-visitors) and 'museums' being the least popular (6.82 for visitors, 5.55 for

[1]: All three types of visitors who provided valid responses for all 15 image items.
[2]: Those who never visited Michigan before and provided valid responses for all 15 image items.

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Table 25

Item
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non-visitors). However, there are noticeable differences in terms of mean image scores and standard deviations in scores between these groups.

Table 25. Image item descriptive statistics for visitors and non-visitors.

	Visitors (n=3,968)		Non-visitors (n=1,262)	
Item	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
getaway	8.50	2.35	6.92	3.04
museums	6.82	2.55	5.55	2.56
summer rec.	8.45	1.95	6.98	2.40
exciting	7.51	2.16	6.04	2.44
lodging	7.69	2.05	6.38	2.39
scenic	8.54	1.83	7.15	2.41
winter rec.	8.19	2.10	7.01	2.50
friendly	7.92	2.05	6.63	2.50
must visit	8.43	2.16	7.01	2.71
safe	7.66	2.07	6.38	2.49
nightlife	6.83	2.28	6.00	2.37
family place	8.21	1.97	6.59	2.47
popular place	7.39	2.20	5.92	2.50
historic	7.37	2.15	6.10	2.33
value	7.67	2.02	6.26	2.37

Table 26. The results of the independent samples t-test on the differences between visitors and non-visitors.

	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**	**Mean Difference**	**Std. Error Difference**
getaway	273.671	.000[a]	19.332	5228	.000[a]	1.58	0.0819
museums	5.866	.015[b]	15.332	5228	.000[a]	1.27	0.0826
summer rec.	92.159	.000[a]	22.028	5228	.000[a]	1.47	0.0667
exciting	25.067	.000[a]	20.507	5228	.000[a]	1.48	0.0722
lodging	64.414	.000[a]	19.051	5228	.000[a]	1.31	0.0689
scenic	154.039	.000[a]	21.616	5228	.000[a]	1.39	0.0642
winter rec.	72.624	.000[a]	16.483	5228	.000[a]	1.18	0.0713
friendly	114.077	.000[a]	18.446	5228	.000[a]	1.29	0.0700
must visit	158.495	.000[a]	18.983	5228	.000[a]	1.41	0.0745
safe	95.840	.000[a]	18.135	5228	.000[a]	1.28	0.0705
nightlife	1.132	.287	11.057	5228	.000[a]	0.82	0.0742
family place	131.221	.000[a]	23.786	5228	.000[a]	1.62	0.0680
popular place	39.023	.000[a]	20.103	5228	.000[a]	1.48	0.0734
historic	7.216	.007[a]	17.895	5228	.000[a]	1.27	0.0710
value	69.148	.000[a]	20.724	5228	.000[a]	1.41	0.0682

[a]: Statistically significant at 99% level ($p < 0.01$).

[b]: Statistically significant at 95% level ($p < 0.05$).

As can be seen in Table 26, visitors' mean image scores for all attributes are over one point higher than those of non-visitors except for the 'nightlife' attribute and

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differences in all attributes are statistically significant. The differences between visitors' and non-visitors' ratings of the set of image attributes could be interpreted in two ways: (1) the perception of these attributes by non-visitors is inaccurate because they are unfamiliar with Michigan (2) visitors come to Michigan because they already have a better image of it as a desirable pleasure trip destination.

Also, visitors' image score standard deviations are significantly smaller than non-visitors' image score standard deviations for all image attributes except for the 'nightlife' attribute, possibly because their image of Michigan is derived from personal experience rather than secondary information sources. The differences in standard deviations are biggest for the 'getaway' and 'scenic' attributes and smallest and not statistically significant for the 'nightlife' attribute; meaning, visitation crystallized the 'getaway' and 'scenic' attributes more than the other attributes while this stabilization did not occur in the 'nightlife' attribute since the difference between the variances is not big or statistically significant.

In Table 27, the differences between the images of all visitors and all non-visitors, including those who gave invalid responses for some image measurement items are provided. These all visitors' and all non-visitors' responses are not too different from those of visitors and non-visitors who provided valid responses for all image items. A closer look at the number of respondents who provided valid responses for each item reveals that the number of respondents drops dramatically on the 'museums' and 'nightlife' attributes in both groups. This shows that there is a lack of knowledge and perception on these aspects of Michigan among non-visitors as well as visitors.

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Table 27. Image item descriptives for all visitors and all non-visitors.

	Visitors (n=5,550-6,971)			Non-visitors (n=1,936-2,951)		
Item	**n**	**Mean**	**Std. Dev.**	**n**	**Mean**	**Std. Dev.**
getaway	6946	8.33	2.51	2951	6.79	3.16
museums	5613	6.96	2.52	1936	5.80	2.66
summer rec.	6872	8.39	1.96	2645	7.13	2.37
exciting	6787	7.42	2.20	2448	6.08	2.47
lodging	6035	7.76	2.02	2027	6.69	2.35
scenic	6884	8.46	1.86	2579	7.37	2.29
winter rec.	6313	8.17	2.12	2426	7.22	2.44
friendly	6678	7.91	2.07	2359	6.94	2.44
must visit	6971	8.35	2.22	2732	7.22	2.67
safe	6596	7.65	2.11	2371	6.60	2.45
nightlife	5550	6.88	2.30	1976	6.19	2.38
family place	6848	8.15	2.02	2531	6.82	2.39
popular place	6315	7.37	2.23	2310	5.99	2.53
historic	6086	7.37	2.16	2062	6.27	2.34
value	6303	7.65	2.04	2078	6.41	2.37

Since visitors' image of Michigan is significantly better than that of non-visitors in all attributes, it can be concluded that the improvement in Michigan's image could be due to the increasing portion of visitors in the image-respondent subgroup of the sample over the 5-year period.

Image Item Correlations

The correlation matrix for image items is provided in Table 28. As can be seen in the table, there are moderately high correlations (between 0.20-0.70) between image items. High correlations are desired since the few factors extracted through factor analysis should be providing maximum explanation of the original variables.

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Table 28. Image item correlation matrix.

Pearson Corr.	1														
1-getaway	1.000	2													
2-museums	.287	1.000	3												
3-summer rec.	.475	.388	1.000	4											
4-exciting	.364	.508	.649	1.000	5										
5-lodging	.323	.534	.560	.664	1.000	6									
6-scenic	.388	.395	.661	.609	.606	1.000	7								
7-winter rec.	.342	.337	.525	.480	.470	.560	1.000	8							
8-friendly	.303	.436	.516	.579	.580	.554	.526	1.000	9						
9-must visit	.325	.369	.520	.580	.496	.537	.456	.549	1.000	10					
10-safe	.342	.307	.522	.548	.477	.528	.451	.574	.551	1.000	11				
11-nightlife	.214	.516	.404	.568	.583	.416	.391	.509	.460	.402	1.000	12			
12-family place	.403	.400	.679	.672	.591	.674	.557	.610	.618	.641	.473	1.000	13		
13-popular place	.336	.442	.568	.656	.590	.583	.493	.551	.548	.533	.493	.705	1.000	14	
14-historic	.305	.588	.510	.624	.601	.559	.473	.534	.529	.466	.548	.601	.623	1.000	15
15-value	.383	.435	.601	.640	.581	.596	.495	.582	.546	.587	.500	.666	.621	.641	1.000

Listwise deleted n=5,485

Results of Exploratory Factor Analyses

Exploratory factor analysis was applied on 15 image items to derive fewer meaningful and uncorrelated image factors to be used as the dependent variables (Michigan's image) in the multiple regression analyses. Principal component analysis was used as the initial factor extraction method to extract uncorrelated factors organized in order of decreasing variances. Factors with Eigenvalues-exceeding-one were kept since those factors represent the variance equal or greater than that of the average original variable. Then, these factors were rotated using the Varimax rotation method. Factors extracted with this method are more meaningful since items are rotated orthogonally, forcing them to approach the limits of 0 and ± 1; variables with loadings closer to 1 have good correlation to the factor on which they loaded. Eventually, variables with substantial loadings, equal to or greater than 0.5, were used to represent the factors.

The procedure explained above was applied to the all-years' data first. Initial factor extraction with the Eigenvalues-exceeding-one criterion resulted in the extraction

of two factors. These two factors were rotated using the Varimax method. To validate the results of the all-years' data factor analysis, the same procedures were applied to the two different data periods, 1996-1997 and 2001-2002. The results of these factor analyses are presented in Table 29.

Table 29. Factor analysis results for different data periods.

All-years* (n=5,485)			1996-1997 (n=2,580)		2001-2002 (n=1,597)		
Dimensions	**Factor Loadings**		**Dimensions**	**Factor Loadings**	**Dimensions**	**Factor Loadings**	
	F1	**F2**		**F1**		**F1**	**F2**
summer rec.	**0.764**	0.306	family place	0.870	summer rec.	**0.767**	0.258
family place	**0.761**	0.415	exciting	0.841	getaway	**0.756**	-0.129
scenic	**0.716**	0.376	value	0.807	family place	**0.723**	0.384
safe	**0.696**	0.294	scenic	0.804	safe	**0.715**	0.233
getaway	**0.657**	0.011	lodging	0.801	scenic	**0.607**	0.387
winter rec.	**0.636**	0.304	popular place	0.794	winter rec.	**0.601**	0.317
value	**0.629**	0.504	summer rec.	0.789	popular place	**0.554**	0.543
must visit	**0.603**	0.421	historic	0.788	must visit	**0.551**	0.437
popular place	**0.586**	0.537	friendly	0.784	value	**0.596**	0.475
friendly	**0.551**	0.525	must visit	0.740			
			safe	0.706	nightlife	0.100	**0.803**
nightlife	0.196	**0.793**	winter rec.	0.689	museums	0.065	**0.791**
museums	0.124	**0.791**	nightlife	0.687	lodging	0.313	**0.722**
historic	0.402	**0.722**	museums	0.629	historic	0.383	**0.673**
lodging	0.439	**0.687**	getaway	0.519	exciting	0.537	**0.579**
exciting	0.567	**0.613**			friendly	0.402	**0.547**
Rotation converged in 3 iterations			Only 1 component was extracted.		Rotation converged in 3 iterations.		
Cumulative % of Variance Explained: 62.23			The solution cannot be rotated. Cumulative % of Variance Explained: 57.00		Cumulative % of Variance Explained: 58.15		

* : The full sample including 1996, 1997, 1998, 2001 and 2002, with which the study hypotheses are tested.
Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Items ordered by the size of factor loadings.

As can be seen in Table 29, the factor analysis results of the all-years' data and the 2001-2002 data revealed two factors while factor analysis of the 1996-1997 data revealed only one factor with all dimensions loading onto one factor with substantial loadings (greater than 0.50). The cumulative variance explained by the factors extracted is the smallest for the 1996-1997 data period (57.00%) while that of the all-years' data is the highest (62.23%).

The results of the all-years' data are similar to those of the 2001-2002 data with slight differences in dimensions' factor loading sizes and directions. In the all-years' data, there are 4 floater (cross-loader) dimensions, loading highly, with loadings greater than 0.50, onto both factors: 'value', 'popular place', 'friendly', and 'exciting' dimensions. However, factor loadings of 'value', 'popular place', and 'friendly' dimensions are higher on Factor I while the factor loading of 'exciting' dimension is higher on Factor II. Two of these dimensions, 'popular place' and 'exciting', are also floaters in the 2001-2002 data. The 'popular place' dimension loads higher onto Factor I while 'friendly' dimension loads higher onto Factor II in this period.

The differences in the number of factors can be explained by the fact that the percentage of visitors in the sample was higher in the later-years of the study. Since visitors were found to have a differentiated image of the destination, their increasing representation in the image measurement during later-years might have caused the results of the all-years' data to be differentiated too. To check if this explanation holds true, the same factor analysis procedures were applied to visitors (all three types of visitors who provided valid responses for all 15 image items) and non-visitors (who never visited Michigan and provided valid responses for all 15 image items) separately. The results of these analyses are presented in Table 30.

As can be seen in Table 30, factor analysis results of the non-visitor group are similar to those of the 1996-1997 data, one factor with all dimensions loading onto one factor with substantial loadings (greater than 0.50) except for the 'getaway' dimension (0.40). Likewise, factor analysis results of the visitor group are similar to those of the all-years' data and especially to the 2001-2002 data, two factors with substantial dimension

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loadings (bigger than 0.50). The cumulative variance explained by the factors extracted for the visitor group is larger than that of the non-visitor group (58.02 and 56.78%, respectively). The 'popular place', 'exciting', and 'friendly' dimensions are also cross-loaders in the visitor group factor analysis results, the first loading higher onto Factor I, while the latter two loading higher onto Factor II. Thus, it can be concluded that the above explanation is highly likely to be true.

Table 30. Factor analysis results for visitor and non-visitor groups.

Visitors (n=3,968)			Non-visitors (n=1,262)	
Dimensions	**Factor Loadings**		**Dimensions**	**Factor Loadings**
	F1	**F2**		**F1**
family place	**0.771**	0.360	family place	0.842
summer rec.	**0.757**	0.242	exciting	0.830
safe	**0.700**	0.207	value	0.812
scenic	**0.697**	0.333	historic	0.806
value	**0.630**	0.447	lodging	0.805
getaway	**0.622**	-0.018	scenic	0.788
popular place	**0.590**	0.501	popular place	0.787
must visit	**0.589**	0.382	summer rec.	0.782
winter rec.	**0.582**	0.287	friendly	0.771
			nightlife	0.753
nightlife	0.150	**0.792**	safe	0.745
museums	0.081	**0.789**	must visit	0.725
historic	0.381	**0.700**	winter rec.	0.697
lodging	0.395	**0.684**	museums	0.646
exciting	0.567	**0.580**	getaway	0.408
friendly	0.511	**0.512**		
Rotation converged in 3 iterations.			Only 1 component was extracted.	
Cumulative % of Variance Explained: 58.02			The solution cannot be rotated.	
			Cumulative % of Variance Explained: 56.78	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Items ordered by the size of loadings.

Since the later-years' data represent the current situation in terms of Michigan's image and since the factor analysis results for the later-years' data resemble those of the all-years' data, the factor analysis results for the all-years' data were adapted for the further analyses in this study. The final factor results are presented in Table 31 and a visual representation of the resulting 2-Factor Model is presented in Figure 10.

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As can be seen in Table 31, two factors were extracted with substantial loadings of all 15 image dimensions, 10 dimensions loaded onto Factor I, and 5 dimensions loaded onto Factor II. The factors explain 62.23% of the original variables. The computation of the internal stability Cronbach alpha coefficient indicates that both factors are stable with substantially high internal consistencies, α=0.91 for Factor I and α=0.87 for Factor II.

Table 31. Summary of factor analysis results.

Image Factors & Dimensions	Factor Loadings	% of Variance Explained	Cumulative % of Variance Explained	Factor Grand Mean	Factor Alpha Value
Factor I: The Setting/Sense of Place		34.19	34.19	7.75	0.91
summer rec.	0.764				
family place	0.761				
scenic	0.716				
safe	0.696				
getaway	0.657				
winter rec.	0.636				
value	0.629				
must visit	0.603				
popular place	0.586				
friendly	0.551				
Factor II: Activities/Things to do		28.04	62.23	6.93	0.87
nightlife	0.793				
museums	0.791				
historic	0.722				
lodging	0.687				
exciting	0.613				

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 3 iterations.
Items ordered by the size of loadings.

Although individual image dimensions have good correlation with these factors, they are not readily interpretable, especially Factor I. A close examination of the dimensions included in Factor I reveals that this factor is a collection of conceptually different image attributes.

Some dimensions, namely, 'summer rec.', 'winter rec.', and 'scenic' are cognitive attributes of image that deal with the factual knowledge of a destination, usually about the physical appearance. On the other hand, other dimensions, such as 'family place',

EFA 2-Factor Model

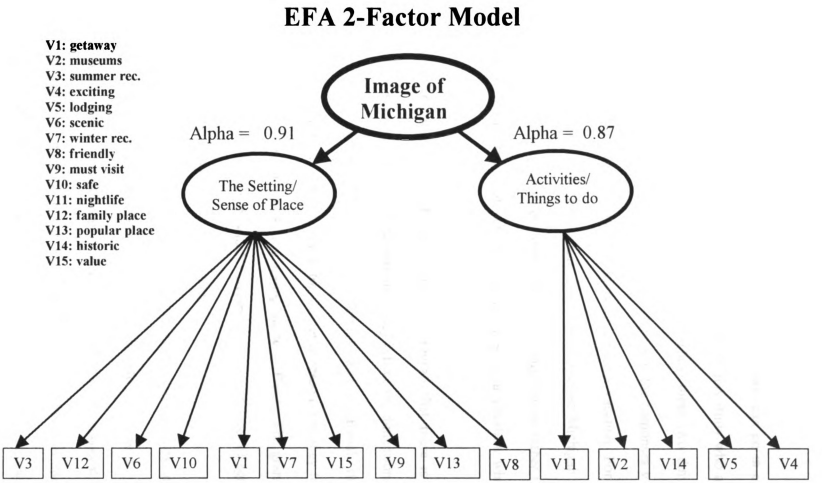

Figure 10. Two-Factor Michigan image model.

'safe', 'must visit', 'popular place', and 'friendly' are affective attributes of image that deal with the feelings and attitudes towards a destination.

The remaining two dimensions, 'value' and 'getaway' can go in either category. Michigan is a close by destination for the respondents in this study who are residents of the surrounding states and a province of Canada. Thus, these two dimensions would normally be counted as a cognitive component. However, the responses would be highly dependent on a particular respondent's ability to afford a vacation. For a low-income respondent who cannot afford a vacation, no matter how close Michigan actually is, the response to this dimension conveys one's financial circumstances rather than the actual knowledge of the physical distance or monetary cost of a vacation while considering Michigan.

A holistic look at all of these dimensions reveals that there is a relationship between these seemingly unrelated dimensions. They reflect the dimensions of a vacation destination that is available, affordable, comfortable and functional; the respondents know it, they visit it every now and then, for whatever reason, and they feel good about it. Thus, this factor was named as 'The setting/Sense of Place'. The grand mean of this factor is 7.75, a rather high score, which corresponds to a high level of agreement on the 10-point scale, where 10 means "agree completely".

The same mixed pattern exists in Factor II; nevertheless, its interpretation is easier than it is for Factor I. Four dimensions, 'nightlife', 'museums', 'historic', and 'lodging' are cognitive components of image that deal with the physical attributes of a destination while the 'exciting' dimension is an affective component of image comprising the feelings or attitudes towards a destination. Again, a holistic perspective on these

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dimensions reveals that these dimensions relate to what people do on pleasure trips. Therefore, this factor was dubbed as 'Activities/Things to do'. The grand mean of this factor is 6.93, an above the average score, which corresponds to a relatively high level of agreement, but not as high as that of Factor I, on the 10-point scale, where 10 means "agree completely". Michigan is perceived as a close by destination good for different travel purposes; however, its touristic activity amenities are perceived as good, but not as good as the setting itself.

These findings appear to be commensurate with the reality of Michigan as a tourist destination; it is a destination with ample natural resources for outdoor recreation both in summer and winter, but it lacks big touristic attractions, such as Cedar Point of Ohio or the Amish Community in Pennsylvania. Thus, it can be concluded that the data on Michigan's image are robust and represent a realistic measure of the image of Michigan.

The Regression Models

Since the two image factors extracted by exploratory factor analysis represent the image of Michigan, these two factors as well as the Overall Image (mean image score) are used as the dependent variables in the two multiple regression models of this study. For this purpose, factor scores of each factor were computed for respondents by using the regression factor scoring function of SPSS 10.0. With this function, as soon as factors are extracted, the scores for the respondents are also calculated and saved as new variables for the corresponding factors. The Overall Image was extracted by computing the mean of the ratings of 15 image items. Thus, these new variables contain the calculated factor

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scores and averaged image scores for the image-respondent subgroup. The calculated responses of the two factors as well as the averaged image scores and the independent variables were used as input in the multiple regression analyses for testing the general population model and the recent visitor segment model of this study.

General Population Model Variables

The descriptive statistics and the correlation matrix of all the variables included in the general respondents model are presented in Tables 32 and 33, respectively. Except for age, overall travel experience, two image factors, and the Overall Image, all variables included in the model are dummy variables with the values of 0 and 1. In Table 32, frequencies are also provided for these dummy variables. As can be seen in the table, with slight decimal differences (due to rounding in mean scores), frequencies are the same as the mean values for these dummy variables since the mean is the middle point between 0 and 1, which equates to the weight of the value of 1, thus the percentage of the value of 1.

The general population model respondents are considerably different from all respondents in the all-years' data in terms of some demographic variables. The mean age for the general population model group is 41.40; this is slightly younger than that of all respondents as was discussed in the sample profiles section of this chapter. The majority of the model respondents are white (88.8%); this is about 5% higher than the percentage of white respondents in the all respondents group. Female respondents represent about 56% of the general population model respondents, which is about a 5% lower representation than that of all respondents. Respondents with above-the-median income

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Table 32. Ge
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make up the majority of the model respondents (80.7%), which is about a 14% higher representation than that of all respondents.

Table 32. General population model variables' descriptives and frequencies for the all-years' data (n=3,554).

Name	Description	Mean	Std. Dev.	Frequency (% of code 1)
Independent Variables				
Age	Age of the respondents	41.40	13.52	-
Race-White[a]	White respondents	0.89	0.31	88.8
Gender-Female[b]	Female respondents	0.56	0.50	55.8
Income-Above-the-median[c]	Respondents with above-the-median income	0.81	0.39	80.7
State-Illinois[d]	Respondents from Illinois	0.18	0.38	17.9
State-Michigan[e]	Respondents from Michigan	0.36	0.48	35.6
State-Ohio[f]	Respondents from Ohio	0.18	0.39	18.3
State-Wisconsin[g]	Respondents from Wisconsin	0.09	0.29	9.3
State-Ontario[h]	Respondents from Ontario	0.09	0.29	9.4
Overall travel experience	Number of pleasure trips to any destination in the past 12 Ms	5.24	5.70	-
Visitation-Visitor[i]	Respondents who visited Michigan at any time	0.79	0.41	79.0
Survey season-Winter[j]	Survey conducted in winter	0.23	0.42	23.4
Survey season-Spring[k]	Survey conducted in spring	0.22	0.42	22.4
Survey season-Summer[l]	Survey conducted in summer	0.24	0.43	23.7
Dependent Variables				
The Setting/Sense of Place	Factor score for Factor 1	0.038	0.977	-
Activities/Things to do	Factor score for Factor 2	-0.021	0.985	-
Overall Image	Mean image score	7.498	1.615	-

- : The variable is continuous, frequency of each value is not given.
[a]: Coded white respondents = 1; all others = 0.
[b]: Coded female respondents = 1; all others = 0.
[c]: Coded above-median income respondents = 1; all others = 0.
[d]: Coded Illinois respondents = 1; all others = 0.
[e]: Coded Michigan respondents = 1; all others = 0.
[f]: Coded Ohio respondents = 1; all others = 0.
[g]: Coded Wisconsin respondents = 1; all others = 0.
[h]: Coded Ontario respondents = 1; all others = 0.
[i]: Coded visitor respondents = 1; all others = 0.
[j]: Coded winter surveys = 1; all others = 0.
[k]: Coded spring surveys = 1; all others = 0.
[l]: Coded summer surveys = 1; all others = 0.

Michigan respondents represent the biggest percentage of all states (35.6%), followed by Ohio and Illinois respondents (18.3% and 17.9%, respectively). The percentages of Wisconsin and Ontario respondents are almost equal (9.3% and 9.4%, respectively). These percentages are quite different from those of all respondents as was summarized in Table 15, Michigan being about double as much as that of all respondents, thus, reducing the representation of other states' residents in the general population model group.

The mean for the overall travel experience variable, meaning the mean number of trips taken within the past 12 moths, is 5.24. Respondents who visited Michigan at some point in their lives constitute the majority of the general model respondents, with a percentage of 79.0, which is about 30% higher than that of all respondents described in Table 15. As was mentioned before, visitors are more likely to finish the survey with valid responses for all questions. Finally, the percentage of respondents surveyed in winter, spring, and summer (included in the model as dummy variables) are 23, 22, and 24, respectively, an almost equal distribution between the four seasons.

As can be seen in the correlation matrix presented in Table 33, there is no substantial correlation among the independent variables, which means that multicollinearity is not likely a problem in the multiple regression analysis.

Table 33. General population model variables' correlations.

Pearson Correlation																		
Independent Variables	**1**																	
1-Age	1.000	**2**																
2-Race-White	.092	1.000	**3**															
3-Gender-Female	.042	.003	1.000	**4**														
4-Income-Above-the-median	-.035	.031	-.068	1.000	**5**													
5-State-Illinois	-.009	-.010	.011	.038	1.000	**6**												
6-State-Michigan	.046	-.021	.083	-.050	-.347	1.000	**7**											
7-State-Ohio	.012	.040	-.018	.007	-.221	-.353	1.000	**8**										
8-State-Wisconsin	-.016	.049	-.034	-.019	-.150	-.238	-.152	1.000	**9**									
9-State-Ontario	-.063	-.093	-.054	.039	-.151	-.240	-.153	-.103	1.000	**10**								
10-Overall travel experience	-.010	.034	-.038	.034	-.013	-.039	-.058	.103	.010	1.000	**11**							
11-Visitation-Visitor	.104	.085	-.001	.033	-.092	.294	-.062	-.058	-.182	.075	1.000	**12**						
12-Survey season-Winter	-.053	.014	.007	-.006	-.004	.047	-.026	-.033	-.014	.029	.025	1.000	**13**					
13-Survey season-Spring	-.023	-.016	.010	-.002	-.035	.024	-.001	.019	-.032	-.016	.022	-.297	1.000	**14**				
14-Survey Season-Summer	.007	-.012	.026	.027	.000	-.020	.033	.009	.019	-.006	-.039	-.308	-.300	1.000				
Dependent Variables															**15**			
15-The Setting/Sense of Place	.049	.135	.055	.023	-.027	.248	-.098	-.029	-.212	.053	.336	.041	.059	.066	1.000	**16**		
16-Activities/Things to do	.184	.006	.058	-.070	-.107	.130	-.032	-.037	-.004	.004	.158	-.027	-.050	-.073	-.056	1.000	**17**	
17- Overall Image	.164	.104	.082	-.031	-.102	.288	-.095	-.053	-.165	.043	.369	.013	.012	.000	.729	.641	1.000	

Listwise deleted n=3,554.

Since the same multiple regression analysis was applied to the 1996-1997 and 2001-2002 data, the descriptives of all variables for these periods are also provided in Table 34.

Table 34. General population model variables' descriptive statistics for different data periods.

		All-years* (n=3,554)		1996-1997 (n=1,990)		2001-2002 (n=942)	
Notation	**Variable**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
	Independent Variables						
A	Age	41.40	13.52	40.60	13.09	43.94	13.94
R	Race-White	0.89	0.31	0.90	0.31	0.87	0.33
G	Gender-Female	0.56	0.50	0.55	0.50	0.56	0.50
I	Income-Above-the-median	0.81	0.39	0.82	0.38	0.76	0.43
S-IL	State-Illinois	0.18	0.38	0.19	0.40	0.13	0.34
S-MI	State-Michigan	0.36	0.48	0.32	0.47	0.45	0.50
S-OH	State-Ohio	0.18	0.39	0.19	0.39	0.16	0.37
S-WI	State-Wisconsin	0.09	0.29	0.10	0.30	0.07	0.25
S-ON	State-Ontario	0.09	0.29	0.10	0.30	0.10	0.30
OTE	Overall travel experience	5.24	5.70	5.31	5.51	5.28	5.45
V	Visitation-Visitor	0.79	0.41	0.78	0.42	0.85	0.36
SS-WI	Survey season-Winter	0.23	0.42	0.27	0.44	0.19	0.39
SS-SP	Survey season-Spring	0.22	0.42	0.25	0.43	0.15	0.36
SS-SU	Survey Season-Summer	0.24	0.43	0.22	0.41	0.18	0.39
	Dependent Variables						
F I	The Setting/Sense of Place	0.038	0.977	0.106	0.963	-0.169	1.004
F II	Activities/Things to do	-0.021	0.985	-0.146	0.947	0.367	0.982
OI	Overall Image	7.498	1.615	7.446	1.677	7.679	1.440

* : The full sample including 1996, 1997, 1998, 2001 and 2002, with which the study hypotheses are tested.

Means (frequencies for dummy variables) for the 1996-1997 data are more or less similar to those of the all-years' data. In the 2001-2002 data, however, there are some noticeable differences, the biggest of which is in the respondents' residence states. The percentage of Michigan residents is 9% higher in the 2001-2002 data than that in the all-years' data. Consequently, the percentages of other states are 1% to 5% lower than those of the all-years' data. Also, the percentage of visitors is 6% higher than that of the all-years' data; and the percentages of survey seasons are 4% to 7% lower than those of the all-years' data. Finally, another difference in the 2001-2002 data is the means of the scores of two image factors. In the all-years' and the 1996-1997 data, mean of Factor I is positive while that of Factor II is negative; the exact opposite case exists in the 2001-2002 data. The Overall Image (mean image score) is highest for the 2001-2002 data and

lowest for the 1996-1997 data while the opposite is true for the standard deviation of the Overall Image.

General Population Model Test Results

The multiple regression model defined to investigate the relationship between destination image, selected demographic variables, overall travel experience, prior visitation and the season of the survey is as follows:

$$\text{Image}_i = \beta_0 + \beta_1 A_i + \beta_2 R_i + \beta_3 G_i + \beta_4 I_i + \beta_5 \text{S-IL}_i + \beta_6 \text{S-MI}_i + \beta_7 \text{S-OH}_i + \beta_8 \text{S-WI}_i + \beta_9 \text{S-ON}_i + \beta_{10} \text{OTE}_i + \beta_{11} V_i + \beta_{12} \text{SS-WI}_i + \beta_{13} \text{SS\_SP}_i + \beta_{14} \text{SS\_SU}_i + \varepsilon_i$$

where,

Image_i = the image held by individual $_i$,

$\beta_{1\text{-}14}$ = coefficients of independent variables 1-14, and

ε_i = the error term for individual $_i$

Since two image factors were extracted with the Exploratory Factor Analysis, these two factors were used as the dependent variables in the multiple regression models as well as the Overall Image (mean image score). Thus, the three regression models are:

$$\text{FI}_i = \beta_0 + \beta_1 A_i + \beta_2 R_i + \beta_3 G_i + \beta_4 I_i + \beta_5 \text{S-IL}_i + \beta_6 \text{S-MI}_i + \beta_7 \text{S-OH}_i + \beta_8 \text{S-WI}_i + \beta_9 \text{S-ON}_i + \beta_{10} \text{OTE}_i + \beta_{11} V_i + \beta_{12} \text{SS-WI}_i + \beta_{13} \text{SS\_SP}_i + \beta_{14} \text{SS\_SU}_i + \varepsilon_i$$

$$\text{FII}_i = \beta_0 + \beta_1 A_i + \beta_2 R_i + \beta_3 G_i + \beta_4 I_i + \beta_5 \text{S-IL}_i + \beta_6 \text{S-MI}_i + \beta_7 \text{S-OH}_i + \beta_8 \text{S-WI}_i + \beta_9 \text{S-ON}_i + \beta_{10} \text{OTE}_i + \beta_{11} V_i + \beta_{12} \text{SS-WI}_i + \beta_{13} \text{SS\_SP}_i + \beta_{14} \text{SS\_SU}_i + \varepsilon_i$$

$$\text{OI}_i = \beta_0 + \beta_1 A_i + \beta_2 R_i + \beta_3 G_i + \beta_4 I_i + \beta_5 \text{S-IL}_i + \beta_6 \text{S-MI}_i + \beta_7 \text{S-OH}_i + \beta_8 \text{S-WI}_i + \beta_9 \text{S-ON}_i + \beta_{10} \text{OTE}_i + \beta_{11} V_i + \beta_{12} \text{SS-WI}_i + \beta_{13} \text{SS\_SP}_i + \beta_{14} \text{SS\_SU}_i + \varepsilon_i$$

Ordinary least square regression was employed to determine the influence of these selected variables on destination image. These multiple regression models were estimated for both image factors and the Overall Image using the survey data of all-years

(1996,1997,1998,2001,2002); then, to validate the results, the same models were estimated using the survey data for two different periods: 1996-1997 (initial two years of the study) and 2001-2002 (later two years of the study). The data of 1998 are excluded from the validation tests to differentiate the results from those of the all-years' data as much as possible. Estimation results for different data periods for Factor I (The Setting/ Sense of Place), Factor II (Activities/Things to do) and the Overall Image are provided in Tables 35, 36 and 37, respectively.

In these tables, the "b" column provides the unstandardized coefficients, otherwise called estimates of the parameters for independent variables. A positive estimate indicates a positive relationship between the Michigan image factor and each independent variable. The "β' column provides the standardized (beta) coefficients, which are used to make comparisons among independent variables in terms of the magnitude of the effect on the dependent variable. Since the results of the all-years' data are inclusive, β values of the all-years' data will be discussed in the text unless the sign of the β values is different for different periods or the size of the β values are markedly different for different data periods.

The "t" column provides the t-statistic, which is used to determine if a coefficient is significantly different from zero in the statistical sense. The "α" column provides the significance level (p-value) for the two-way test of a coefficient being different from zero. Finally, the "T" column presents the tolerance statistic for each variable, a statistic that is used to check the extent of linear relationships among the independent variables (multicollinearity).

Table 35. General population model test results for Factor I (The Setting/Sense of Place).

$$F\ I_i = \beta_0 + \beta_1 A_i + \beta_2 R_i + \beta_3 G_i + \beta_4 I_i + \beta_5 S\text{-}IL_i + \beta_6 S\text{-}MI_i + \beta_7 S\text{-}OH_i + \beta_8 S\text{-}WI_i + \beta_9 S\text{-}ON_i + \beta_{10} OTE_i + \beta_{11} V_i + \beta_{12} SS\text{-}WI_i + \beta_{13} SS\_SP_i + \beta_{14} SS\_SU_i + \varepsilon_i$$

Time Frame	All-years*						1996-1997						2001-2002					
Model Fit	R^2=0.192			f=59.982	α=0.000		R^2=0.217			f=39.007	α=0.000		R^2=0.246			f=21.638	α=0.000	
Variables	**b**	**S.E.**	**ß**	**t**	**α**	**T.**	**b**	**S.E.**	**ß**	**t**	**α**	**T.**	**b**	**S.E.**	**ß**	**t**	**α**	**T.**
(Constant)	-1.058	.091		-11.628	.000		-.779	.123		-6.358	.000		-1.385	.170		-8.168	.000	
Age (A)	.000	.001	.006	.409	.683	.971	.001	.001	.013	.629	.530	.963	.002	.002	.027	.940	.347	.968
Race-White (R)	.326	.048	.105	6.860	**.000[a]**	.971	.319	.064	.101	4.991	**.000[a]**	.966	.285	.089	.094	3.190	**.001[a]**	.935
Gender-Female (G)	.065	.030	.033	2.161	**.031[b]**	.982	.081	.039	.042	2.082	**.037[b]**	.979	.047	.059	.023	.804	.421	.963
Income-Above-the-median (I)	.048	.038	.019	1.271	.204	.984	.058	.050	.023	1.145	.252	.984	-.012	.068	-.005	-.184	.854	.981
State-Illinois (S-IL)	-.019	.060	-.007	-.313	.755	.416	-.100	.076	-.041	-1.314	.189	.404	.003	.124	.001	.028	.978	.465
State-Michigan (S-MI)	.194	.055	.095	3.517	**.000[a]**	.313	.274	.072	.133	3.824	**.000[a]**	.327	.095	.106	.047	.896	.371	.295
State-Ohio (S-OH)	-.202	.059	-.080	-3.395	**.001[a]**	.411	-.254	.076	-.103	-3.328	**.001[a]**	.411	-.125	.119	-.046	-1.052	.293	.424
State-Wisconsin (S-WI)	-.089	.068	-.026	-1.295	.195	.551	-.128	.087	-.040	-1.471	.141	.538	-.043	.145	-.011	-.295	.768	.608
State-Ontario (S-ON)	-.481	.069	-.144	-6.998	**.000[a]**	.539	-.569	.089	-.175	-6.413	**.000[a]**	.535	-.145	.134	-.043	-1.082	.279	.521
Overall travel experience (OTE)	.006	.003	.033	2.144	**.032[b]**	.973	.006	.004	.036	1.794	.073	.966	.004	.005	.024	.820	.412	.968
Visitation-Visitor (V)	.629	.039	.262	16.248	**.000[a]**	.876	.634	.049	.274	12.821	**.000[a]**	.870	.538	.084	.194	6.438	**.000[a]**	.895
Survey season-Winter (SS-WI)	.251	.041	.109	6.156	**.000[a]**	.730	-.020	.053	-.009	-.376	.707	.671	.539	.079	.209	6.818	**.000[a]**	.863
Survey season-Spring (SS-SP)	.300	.041	.128	7.274	**.000[a]**	.736	-.035	.054	-.016	-.651	.515	.680	.862	.086	.306	9.990	**.000[a]**	.864
Survey Season-Summer (SS-SU)	.358	.041	.156	8.819	**.000[a]**	.732	.015	.056	.006	.271	.786	.696	.828	.080	.318	10.354	**.000[a]**	.864

*: The full sample including 1996, 1997, 1998, 2001 and 2002, with which the study hypotheses are tested.

[a]: Statistically significant at 99% level ($p<0.01$).

[b]: Statistically significant at 95% level ($p<0.05$).

Table 36. General population model test results for Factor II (Activities/Things to do).

$$F\ II_i = \beta_0 + \beta_1 A_i + \beta_2 R_i + \beta_3 G_i + \beta_4 I_i + \beta_5 S\text{-}IL_i + \beta_6 S\text{-}MI_i + \beta_7 S\text{-}OH_i + \beta_8 S\text{-}WI_i + \beta_9 S\text{-}ON_i + \beta_{10} OTE_i + \beta_{11} V_i + \beta_{12} SS\text{-}WI_i + \beta_{13} SS\_SP_i + \beta_{14} SS\_SU_i + \varepsilon_i$$

Time Frame	All-years						1996-1997						2001-2002					
Model Fit	R^2=0.092		f=25.688		α =0.000		R^2=0.089		f=13.783		α=0.000		R^2=0.149		f=11.615		α=0.000	
Variables	**b**	**S.E.**	**ß**	**t**	**α**	**T.**	**b**	**S.E.**	**ß**	**t**	**α**	**T.**	**b**	**S.E.**	**ß**	**t**	**α**	**T.**
(Constant)	-.389	.097		-3.997	.000		-.539	.130		-4.145	.000		-.026	.176		-.150	.881	
Age (A)	.012	.001	.159	9.788	**.000**[a]	.971	.009	.002	.130	5.922	**.000**[a]	.963	.011	.002	.152	4.943	**.000**[a]	.968
Race-White (R)	-.048	.051	-.015	-.935	.350	.971	-.187	.068	-.060	-2.760	**.006**[a]	.966	.258	.093	.087	2.780	**.006**[a]	.935
Gender-Female (G)	.101	.032	.051	3.149	**.002**[a]	.982	.142	.041	.074	3.426	**.001**[a]	.979	.074	.061	.037	1.210	.226	.963
Income-Above-the-median (I)	-.143	.040	-.057	-3.558	**.000**[a]	.984	-.117	.053	-.047	-2.187	**.029**[b]	.984	-.049	.070	-.021	-.701	.484	.981
State-Illinois (S-IL)	-.253	.064	-.098	-3.961	**.000**[a]	.416	-.302	.081	-.126	-3.733	**.000**[a]	.404	-.128	.129	-.044	-.991	.322	.465
State-Michigan (S-MI)	.065	.059	.032	1.107	.268	.313	.137	.076	.068	1.798	.072	.327	-.154	.110	-.078	-1.396	.163	.295
State-Ohio (S-OH)	-.093	.064	-.037	-1.470	.142	.411	-.083	.081	-.034	-1.029	.303	.411	-.114	.124	-.043	-.920	.358	.424
State-Wisconsin (S-WI)	-.129	.073	-.038	-1.758	.079	.551	-.102	.092	-.032	-1.106	.269	.538	-.080	.151	-.021	-.530	.596	.608
State-Ontario (S-ON)	.042	.074	.013	.574	.566	.539	.110	.094	.034	1.174	.241	.535	-.118	.139	-.036	-.848	.397	.521
Overall travel experience (OTE)	.000	.003	.003	.175	.861	.973	.000	.004	.001	.034	.973	.966	-.003	.006	-.018	-.577	.564	.968
Visitation-Visitor (V)	.298	.041	.123	7.207	**.000**[a]	.876	.299	.052	.131	5.704	**.000**[a]	.870	.161	.087	.059	1.858	.064	.895
Survey season-Winter (SS-WI)	-.249	.044	-.107	-5.704	**.000**[a]	.730	-.040	.056	-.019	-.719	.472	.671	-.396	.082	-.157	-4.821	**.000**[a]	.863
Survey season-Spring (SS-SP)	-.299	.044	-.127	-6.791	**.000**[a]	.736	-.029	.057	-.013	-.502	.616	.680	-.620	.090	-.225	-6.918	**.000**[a]	.864
Survey Season-Summer (SS-SU)	-.321	.043	-.139	-7.407	**.000**[a]	.732	.056	.059	.024	.941	.347	.696	-.768	.083	-.301	-9.240	**.000**[a]	.864

* : The full sample including 1996, 1997, 1998, 2001 and 2002, with which the study hypotheses are tested.

[a]: Statistically significant at 99% level ($p<0.01$).

[b]: Statistically significant at 95% level ($p<0.05$).

Table 37. General population model test results for the Overall Image (mean image score).

$$OI_i = \beta_0 + \beta_1 A_i + \beta_2 R_i + \beta_3 G_i + \beta_4 I_i + \beta_5 S\text{-}IL_i + \beta_6 S\text{-}MI_i + \beta_7 S\text{-}OH_i + \beta_8 S\text{-}WI_i + \beta_9 S\text{-}ON_i + \beta_{10} OTE_i + \beta_{11} V_i + \beta_{12} SS\text{-}WI_i + \beta_{13} SS\_SP_i + \beta_{14} SS\_SU_i + \varepsilon_i$$

Time Frame	All-years*						1996-1997						2001-2002					
Model Fit	R^2=0.203		f=64.427		α =0.000		R^2=0.228		f=41.708		α=0.000		R^2=0.147		f=11.450		α=0.000	
Variables	**b**	**S.E.**	**ß**	**t**	**α**	**T.**	**b**	**S.E.**	**ß**	**t**	**α**	**T.**	**b**	**S.E.**	**ß**	**t**	**α**	**T.**
(Constant)	5.705	.149		38.196	.000		5.910	.212		27.888	.000		5.667	.259		21.904	.000	
Age (A)	.014	.002	.113	7.447	**.000**[a]	.971	.012	.003	.091	4.507	**.000**[a]	.963	.014	.003	.140	4.542	**.000**[a]	.968
Race-White (R)	.345	.078	.067	4.413	**.000**[a]	.971	.178	.111	.032	1.611	.107	.966	.642	.136	.148	4.706	**.000**[a]	.935
Gender-Female (G)	.195	.049	.060	3.951	**.000**[a]	.982	.256	.067	.076	3.795	**.000**[a]	.979	.148	.090	.051	1.647	.100	.963
Income-Above-the-median (I)	-.102	.062	-.025	-1.651	.099	.984	-.062	.087	-.014	-.712	.477	.984	-.074	.103	-.022	-.715	.475	.981
State-Illinois (S-IL)	-.335	.098	-.080	-3.419	**.001**[a]	.416	-.497	.132	-.118	-3.776	**.000**[a]	.404	-.167	.189	-.039	-.880	.379	.465
State-Michigan (S-MI)	.338	.090	.100	3.734	**.000**[a]	.313	.515	.124	.144	4.161	**.000**[a]	.327	-.041	.162	-.014	-.253	.800	.295
State-Ohio (S-OH)	-.350	.098	-.084	-3.591	**.000**[a]	.411	-.410	.132	-.096	-3.108	**.002**[a]	.411	-.273	.182	-.070	-1.502	.134	.424
State-Wisconsin (S-WI)	-.279	.112	-.050	-2.488	**.013**[b]	.551	-.311	.150	-.056	-2.070	**.039**[b]	.538	-.157	.222	-.028	-.708	.479	.608
State-Ontario (S-ON)	-.557	.113	-.101	-4.934	**.000**[a]	.539	-.600	.153	-.106	-3.911	**.000**[a]	.535	-.304	.204	-.062	-1.486	.138	.521
Overall travel experience (OTE)	.008	.004	.028	1.819	.069	.973	.008	.006	.028	1.378	.168	.966	.003	.008	.011	.359	.720	.968
Visitation-Visitor (V)	1.140	.064	.288	17.938	**.000**[a]	.876	1.142	.085	.283	13.362	**.000**[a]	.870	.892	.128	.224	6.993	**.000**[a]	.895
Survey season-Winter (SS-WI)	.037	.067	.010	.557	.577	.730	-.082	.091	-.022	-.897	.370	.671	.245	.121	.066	2.032	**.042**[b]	.863
Survey season-Spring (SS-SP)	.044	.068	.011	.651	.515	.736	-.084	.093	-.022	-.904	.366	.680	.419	.132	.104	3.184	**.002**[a]	.864
Survey Season-Summer (SS-SU)	.091	.067	.024	1.372	.170	.732	.076	.096	.019	.785	.433	.696	.194	.122	.052	1.593	.111	.864

* : The full sample including 1996, 1997, 1998, 2001 and 2002, with which the study hypotheses are tested.

[a] : Statistically significant at 99% level ($p<0.01$).

[b] : Statistically significant at 95% level ($p<0.05$).

Also, model fit statistics, namely R^2, f statistic, and α (p-value), are provided in these tables as measures of the model fit for the data for each data period. These values are used to test the null hypothesis that there is no linear relationship in the population between the dependent variable and the independent variables. In other words, these values are used to test multiple equivalent null hypotheses that all of the population partial regression coefficients are 0, and the population value for the multiple R^2 is 0. The R^2 reflects the percentage of the variance in the dependent variable explained by the independent variables. The f-statistic, which is the ratio of the regression mean square to the residual mean square, provides the basis for testing the null hypotheses that all of the population partial regression coefficients are 0, and the population value for the multiple R^2 is 0. The α serves as the significance indicator of the one-way test for the null hypothesis that the R^2 is equal to zero.

Tolerance values of independent variables provided in Tables 35, 36, and 37 are investigated to detect if there is a multicollinearity and/or singularity problem in the regression analyses of this study. As was mentioned before, multicollinearity happens when two or more variables in the regression model are highly correlated; and singularity occurs when one score in the regression model is a linear combination of others. Both of these conditions jeopardize the results of the multiple regression models by causing instability in the matrix inversion. A variable with tolerance values below 0.19 is assumed to be a linear combination of other independent variables (Hair et al.1998), thus, dependent highly on other independent variables.

As can be seen in Tables 35, 36 and 37, all tolerance values are above the cutoff point. The tolerance values of Illinois, Michigan, and Ohio are smaller than 0.5 for the

general population model across all data periods. Michigan has the lowest tolerance values across all data periods (about 0.3). This might be the result of overrepresentation of Michigan respondents in the sample.

As can be seen in Table 35, when estimated for the all-years' survey data using the two-tailed t-test, most of the independent variables, ten out of 14 independent variables were found to be significantly influential on the 'Setting/Sense of Place' Factor. These variables are race-white, gender-female, state-Michigan, state-Ohio, state-Ontario, overall travel experience, visitation-visitor, survey season-winter, survey season-spring, and survey season-summer. However, when the same estimation was applied for the 1996-1997 data, four of these ten influential variables, namely, overall travel experience, survey season-winter, survey season-spring, and survey season-summer were found to be insignificant. Yet, when applied on the 2001-2002 data, five of these ten variables namely, gender-female, state-Michigan, state-Ohio, state-Ontario, and overall travel experience were found to be insignificant. Only two independent variables were found to be significantly influential across all data periods: race-white (whether or not respondents are white) and visitation-visitor (whether or not respondents visited Michigan before).

This means that only whether or not respondents are white and whether or not they visited Michigan are significant in explaining the Setting/Sense of Place Factor. The sign and size of β values are similar across different data periods, so the results of the all-years' data will be discussed. The coefficients (β values) are positive for the race-white, and visitation variables, white respondents (β=0.105) have a better perception of Michigan than respondents from other race groups, and those who visited Michigan (β=0.262) have a better perception of Michigan than the non-visitors on the Setting/Sense

of Place Factor. Having a greater coefficient, however, the prior visitation variable is more influential than the race variable in explaining this factor; in fact, its coefficient is the greatest among all variables that were significant in the all-years' data.

A similar dropout pattern is found in the estimation results for the Activities/Things to do Factor with some differences in the numbers and types of the influential variables. As can be seen in Table 36, when estimated for the all-years' data, and using the two-tailed t-test, the majority of the independent variables, eight out of 14 independent variables were found to be significantly influential on the Activities/Things to do Factor. These variables are age, gender-female, income-above-the-median, state-Illinois, visitation-visitor, survey season-winter, survey season-spring, and survey season-summer. However, when the same estimation was applied for the 1996-1997 data, six variables were found significant; survey season-winter, survey season-spring, and survey season-summer dropped out and race-white added. Yet, when applied on the 2001-2002 data, the gender-female, income-above-the-median, state-Illinois, and visitation-visitor variables dropped out and race-white variable was added, as in the 1996-1997 data. Although the visitation-visitor variable was significant across all data periods for the Setting/Sense of Place Factor, it is not significant for the Activities/Things to do Factor. Only one independent variable is significantly influential across all data periods: respondents' age.

This means that only respondents' age is significant in explaining the Activities/Things to do Factor. The sign and size of β values are similar across different data periods, so the results of the all-years' data will be discussed. Since the coefficient is

positive (β=0.159), older respondents have better perception of the Activities/Things to do Factor than do younger respondents.

One would expect that the combination of those variables influential in explaining each image factor would be influential in explaining the Overall Image of Michigan, which is the mean image score of the 15 image items. As can be seen in Table 37, when estimated for the all-years' survey data using the two-tailed t-test, nine out of 14 independent variables were found to be significantly influential on the Overall Image of Michigan. These variables are age, race-white, gender-female, state-Illinois, state-Michigan, state-Ohio, state, Wisconsin, state-Ontario, and visitation-visitor. When the same estimation was applied for the 1996-1997 data, the same variables were significant except for the race-white variable. Yet, when applied for the 2001-2002 data, five of these variables namely, age, race-white, visitation-visitor, survey season-winter and survey-season-spring were found to be insignificant. Only two independent variables were found to be significantly influential across all data periods: age and visitation-visitor (whether or not respondents visited Michigan before).

This is not commensurate with what was expected initially. Race-white and visitation-visitor were found to be consistently influential in explaining the Setting/Sense of Place Factor and age was found to be consistently influential in explaining the Activities/ Things to do Factor, across all data periods. Only two of these variables were found to be consistently influential in explaining the Overall Image of Michigan, across all data periods: age and visitation-visitor.

This means that only respondents' age and whether or not they visited Michigan are significant in explaining the Overall Image of Michigan. The sign and size of β values

are similar across different data periods, so the results of the all-years' data will be discussed. The coefficients (β values) are positive for both variables, older respondents (β=0.113) have better perception of the Overall Image of Michigan than do younger respondents, and those who visited Michigan (β=0.288) have better perception of the Overall Image of Michigan than do non-visitors. Having a greater coefficient, prior visitation variable is more influential than the age variable in explaining the Overall Image of Michigan; indeed, its coefficient is the greatest among all other variables that were significant in the all-years' data.

Recent Visitor Segment Model Variables

Descriptive statistics and the correlation matrix of all the variables included in the recent visitor segment model are presented in Tables 38 and 39, respectively. As was discussed in the demographics section, the demographic profile of the recent visitor segment model-respondents[1] is different from not only all respondents[2], but also the all recent visitors group[3].

The recent visitor segment model respondents are slightly younger on average (41.95 years of age) than both all respondents (43.1 years of age) and all recent visitors (43.1 years of age). The differences in the percentages of white respondents are quite noticeable. Over 90% of the recent visitor segment model respondents are white; this percentage is about the same as that of the all recent visitors group, but about 7% higher than that of all respondents.

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[1]: Those who took a trip to Michigan within the past 12 months and provided valid responses for all model variables, including demographics.

[2]: All respondents with demographic information.

[3]: Those who took a trip to Michigan within the past 12 months and provided demographic information.

Table 38. Recent visitor segment model variables' descriptives and frequencies (n=1,269).

Name	Description	Mean	Std. Dev.	Frequency (% of code 1)
Independent Variables				
Age	Age of the respondents	41.95	13.22	-
Race-White[a]	White respondents	0.91	0.28	91.2
Gender-Female[b]	Female respondents	0.58	0.49	57.6
Income-Above-the-median[c]	Respondents with above-the-median income	0.81	0.40	80.5
State-Illinois[d]	Respondents from Illinois	0.10	0.30	9.9
State-Michigan[e]	Respondents from Michigan	0.61	0.49	61.4
State-Ohio[f]	Respondents from Ohio	0.11	0.31	10.6
State-Wisconsin[g]	Respondents from Wisconsin	0.05	0.23	5.4
State-Ontario[h]	Respondents from Ontario	0.05	0.21	4.8
Overall travel experience	Number of pleasure trips to any destination in the past 12 Ms	5.83	5.51	-
No visitor variable since they are all recent visitors				
Visitation frequency	Number of pleasure trips taken in Michigan in the past 12 months	3.26	2.29	-
How recent visit-Most recent[i]	Visited Michigan during the most recent trip in the past 12 months	0.58	0.49	58.2
Visit season-Winter[j]	Last visit to Michigan was in winter	0.15	0.36	15.0
Visit season-Spring[k]	Last visit to Michigan was in spring	0.15	0.36	15.3
Visit season-Summer[l]	Last visit to Michigan was in summer	0.46	0.50	45.8
Nights	Length of stay in Michigan during the last visit	2.88	3.65	-
Activities	Number of activities during the last visit	4.25	2.41	-
Survey season-Winter[m]	Survey conducted in winter	0.26	0.44	26.2
Survey season-Spring[n]	Survey conducted in spring	0.22	0.42	22.4
Survey season-Summer[o]	Survey conducted in summer	0.22	0.42	22.4
Dependent Variables				
The Setting/Sense of Place	Factor score for Factor 1	0.384	0.830	-
Activities/Things to do	Factor score for Factor 2	0.176	0.917	-
Overall Image	Mean image score	8.165	1.272	-

- :The variable is continuous, frequency of each value is not given.
[a] : Coded white respondents = 1; all others = 0.
[b] : Coded female respondents = 1; all others = 0.
[c] : Coded above-median income respondents = 1; all others = 0.
[d] : Coded Illinois respondents = 1; all others = 0.
[e] : Coded Michigan respondents = 1; all others = 0.
[f] : Coded Ohio respondents = 1; all others = 0.
[g] : Coded Wisconsin respondents = 1; all others = 0.
[h] : Coded Ontario respondents = 1; all others = 0.
[i] : Coded most recent visitors = 1; less recent visitors = 0.
[j] : Coded winter trips = 1; all others = 0.
[k] : Coded spring trips = 1; all others = 0.
[l] : Coded summer trips = 1; all others = 0.
[m] : Coded winter surveys = 1; all others = 0.
[n] : Coded spring surveys = 1; all others = 0.
[o] : Coded summer surveys = 1; all others = 0.

Female respondents constitute 58% of the recent visitor segment model respondents, which is about 2% lower than those of all respondents and the all recent visitors. The percentage of the above-the-median income respondents for the recent

Table 39. Recent visitor segment model variables' correlations.

Pearson Correlation																								
Independent Variables	**1**																							
1-Age	1.000	**2**																						
2-Race-White	.081	1.000	**3**																					
3-Gender-Female	.033	.008	1.000	**4**																				
4-Income-Above-the-median	-.025	.012	-.039	1.000	**5**																			
5-State-Illinois	.007	-.034	-.039	.075	1.000	**6**																		
6-State-Michigan	.040	.058	.120	-.055	-.418	1.000	**7**																	
7-State-Ohio	-.015	-.042	-.016	.025	-.114	-.435	1.000	**8**																
8-State-Wisconsin	-.047	.002	-.050	.002	-.079	-.301	-.082	1.000	**9**															
9-State-Ontario	-.028	-.055	-.062	.001	-.074	-.282	-.077	-.053	1.000	**10**														
10-Overall travel experience	-.011	-.002	-.045	.037	.022	-.127	-.005	.148	-.005	1.000	**11**													
11-Visit frequency	.060	.036	.016	.003	-.134	.315	-.133	-.111	-.112	.252	1.000	**12**												
12-How recent visit-Most recent	-.028	.035	.043	-.049	-.075	.239	-.100	-.105	-.025	-.140	.195	1.000	**13**											
13-Visit season -Winter	-.134	-.007	.011	.011	-.019	.018	-.026	.067	-.028	.079	.117	.032	1.000	**14**										
14-Visit season -Spring	.038	-.052	-.013	.020	.021	-.028	.055	.000	.003	-.003	-.006	-.035	-.179	1.000	**15**									
15-Visit season-Summer	.014	.003	.006	.049	.024	-.012	-.020	-.021	.007	-.089	-.131	-.034	-.386	-.392	1.000	**16**								
16-Nights	.043	.020	-.026	.036	.080	-.012	-.013	-.003	-.025	.008	.008	.078	-.071	-.099	.153	1.000	**17**							
17-Activities	.019	.000	-.039	.072	.053	.018	-.028	-.004	-.018	.040	.016	.151	-.141	-.113	.126	.238	1.000	**18**						
18-Survey season-Winter	-.044	.038	-.014	-.038	-.020	.024	.001	.009	-.053	.043	.008	.021	.166	-.134	-.077	-.005	-.016	1.000	**19**					
19-Survey season-Spring	-.015	.007	-.012	.039	-.066	-.004	.039	.020	.011	-.012	.003	-.073	.119	.125	-.185	-.023	-.081	-.320	1.000	**20**				
20-Survey season-Summer	.005	-.063	.048	.023	.027	.006	-.019	.009	.049	-.020	.009	-.003	-.083	.136	.127	.013	-.044	-.320	-.289	1.000				
Dependent Variables																					**21**			
21-The Setting/Sense of Place	-.021	.151	.042	.068	.073	.109	-.120	.016	-.153	.049	.143	.053	.041	.019	-.019	.071	-.023	.068	.037	.073	1.000	**22**		
22-Activities/Things to do	.184	-.018	.086	-.084	-.110	.099	-.005	-.064	.017	-.050	.068	.133	-.027	-.012	-.025	.028	.127	-.015	-.053	-.050	-.252	1.000	**23**
23- Overall Image	.131	.108	.106	-.015	-.035	.176	-.105	-.045	-.108	.000	.175	.153	.013	.006	-.038	.076	.082	.044	-.012	.021	.618	.604	1.000	

Listwise deleted n=1,269.

visitor segment model respondents (81%) is a little higher than that of the all recent visitors group (77.7%), but noticeably higher than that of all respondents (66.8%).

The representation of different states in the recent visitor segment model respondents group is rather different from those of both all respondents and all recent visitors. The majority of the recent visitor segment model respondents are Michigan residents (61%), while they constitute 48.1% of the all recent visitors group and only 18.5% of all respondents. Wisconsin and Ontario residents each represent only 5% of the recent visitor segment model respondents; these percentages are about 2% lower than those of the all recent visitors group while the decrease is 5% for Wisconsin and 13% for Ontario when compared to all respondents.

When compared with the general population model respondents, the only noticeable difference in the recent visitor segment model respondents' demographics is the distribution of the residence states, Michigan's being 25% higher and other states' being 4% to 8% lower in the recent visitor segment model respondents group.

The mean for the overall travel experience variable (average number of trips taken in any destination in the past 12 months) is 5.83, while mean visitation frequency to Michigan (average number of trips taken in Michigan in the past 12 months) is 3.26. Since the recent visitor segment model respondents are all recent visitors, there is no visitation-visitor variable in this model; however, there are additional last visit related variables: (1) whether or not the last visit to Michigan is the most recent trip, (2) the season of the last visit to Michigan, (3) the length of stay in Michigan during the last visit, measured as the number of nights spent, and (4) the number of activities participated in Michigan during the last visit.

The majority of the recent visitor segment model respondents (58%) visited Michigan in their most recent trip within the past 12 moths. As for the season of the last visit, summer was the most popular season (46%), while winter and spring were a lot less popular seasons and equal in distribution (15%) for the recent visitor segment model respondents. On average, recent visitors spent 2.88 nights and participated in 4.25 activities during their last trip to Michigan.

In terms of the survey season, the recent visitor segment model respondents are similar to the general population model respondents. However, there are differences in the mean image factor scores and mean Overall Image scores between these two groups; mean image factor scores for the recent visitor segment model respondents are all positive and both mean factor scores and the mean Overall Image score are higher than those of the general population model respondents.

As can be seen in the correlation matrix presented in Table 39, there is no substantial correlation among the independent variables; this is desirable since it is evidence that multicollinearity is not likely a problem in the multiple regression analysis.

Since the same multiple regression analysis was applied to the 1996-1997 and 2001-2002 data periods, the descriptives for all variables for these periods are also provided in Table 40. As was observed in the general population model respondents, there are some discrepancies in the recent visitor segment model respondents' characteristics in the 2001-2002 data period. Means (frequencies for dummy variables) for the 1996-1997 data are more or less similar to those of the all-years' data. In the 2001-2002 data, however, there are some noticeable differences in respondents' age, income, residence states, and how recent was the last visit to Michigan.

Table 40. Recent visitor segment model variables' descriptive statistics across different data periods.

		All-years* (n=1,269)		1996-1997 (n=730)		2001-2002 (n=347)	
Notation	**Variable**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**	**Mean**	**Std. Dev.**
	Independent Variables						
A	Age	41.95	13.22	40.49	12.76	45.82	13.69
R	Race-White	0.91	0.28	0.91	0.29	0.91	0.28
G	Gender-Female	0.58	0.49	0.56	0.50	0.59	0.49
I	Income-Above-the-median	0.81	0.40	0.81	0.39	0.76	0.43
S-IL	State-Illinois	0.10	0.30	0.10	0.30	0.06	0.24
S-MI	State-Michigan	0.61	0.49	0.58	0.49	0.71	0.45
S-OH	State-Ohio	0.11	0.31	0.12	0.33	0.08	0.27
S-WI	State-Wisconsin	0.05	0.23	0.06	0.24	0.03	0.18
S-ON	State-Ontario	0.05	0.21	0.05	0.22	0.05	0.21
OTE	Overall travel experience	5.83	5.51	6.04	5.40	5.32	4.31
VF	Visitation frequency	3.26	2.29	3.15	2.28	3.49	2.21
VR	How recent visit-Most recent	0.58	0.49	0.52	0.50	0.70	0.46
VS-WI	Visit season-Winter	0.15	0.36	0.16	0.37	0.11	0.32
VS-SP	Visit season-Spring	0.15	0.36	0.14	0.34	0.16	0.37
VS-SU	Visit season-Summer	0.46	0.50	0.46	0.50	0.44	0.50
N	Nights	2.88	3.65	2.94	3.87	2.43	1.97
AC	Activities	4.25	2.41	3.93	2.37	4.70	2.39
SS-WI	Survey season-Winter	0.26	0.44	0.29	0.45	0.21	0.41
SS-SP	Survey season-Spring	0.22	0.42	0.24	0.43	0.17	0.38
SS-SU	Survey season-Summer	0.22	0.42	0.20	0.40	0.18	0.39
	Dependent Variables						
F I	The Setting/Sense of Place	0.384	0.830	0.490	0.772	0.074	0.942
F II	Activities/Things to do	0.176	0.917	0.077	0.879	0.414	0.960
OI	Overall Image	8.165	1.272	8.187	1.277	8.050	1.266

* : The full sample including 1996, 1997, 1998, 2001 and 2002, with which the study hypotheses are tested.

The recent visitor segment model respondents in the 2001-2002 data are about 5 years younger on average. Above the median income respondents are about 76% of the recent visitor segment model respondents in the 2001-2002 data, while this percentage is about 5% higher for other periods. The percentage of Michigan residents is about 10% higher, and those of other states (except for Ontario) are 2% to 4% lower in the 2001-2002 data than in the all-years' and the 1996-1997 data. Finally, 70% of the recent visitor segment model respondents visited Michigan in their most recent trip within the past 12 months. This percentage was 12% lower for the all-years' data and 18% less for the 1996-1997 data. The Overall Image is above 8 for all data periods; however, it is lower

for the 2001-2002 data than it is for the 1996-1997 data, while the opposite is true for the standard deviation of the Overall Image.

Recent Visitor Segment Model Test Results

The multiple regression model specified to investigate the relationship between recent visitors' destination image and selected demographic variables, selected past travel behavior variables, and the season of the survey is as follows:

$$\text{Image}_i = \beta_0 + \beta_1 A_i + \beta_2 R_i + \beta_3 G_i + \beta_4 I_i + \beta_5 \text{S-IL}_i + \beta_6 \text{S-MI}_i + \beta_7 \text{S-OH}_i + \beta_8 \text{S-WI}_i + \beta_9 \text{S-ON}_i + \beta_{10} \text{OTE}_i + \beta_{11} \text{VF}_i + \beta_{12} \text{VR}_i + \beta_{13} \text{VS-WI}_i + \beta_{14} \text{VS-SP}_i + \beta_{15} \text{VS-SU}_i + \beta_{16} N_i + \beta_{17} AC_i + \beta_{18} \text{SS-WI}_i + \beta_{19} \text{SS-SP}_i + \beta_{20} \text{SS-SU}_i + \varepsilon_i$$

where,

Image_i = the image held by individual $_i$,

$\beta_{1\text{-}20}$ = coefficients of independent variables 1-20, and

ε_i = the error term for individual $_i$

Since two image factors were extracted with the Exploratory Factor Analysis, these two factors and the Overall Image were used as the dependent variables in the multiple regression models. Thus, the two regression models are:

$$\text{F I}_i = \beta_0 + \beta_1 A_i + \beta_2 R_i + \beta_3 G_i + \beta_4 I_i + \beta_5 \text{S-IL}_i + \beta_6 \text{S-MI}_i + \beta_7 \text{S-OH}_i + \beta_8 \text{S-WI}_i + \beta_9 \text{S-ON}_i + \beta_{10} \text{OTE}_i + \beta_{11} \text{VF}_i + \beta_{12} \text{VR}_i + \beta_{13} \text{VS-WI}_i + \beta_{14} \text{VS-SP}_i + \beta_{15} \text{VS-SU}_i + \beta_{16} N_i + \beta_{17} AC_i + \beta_{18} \text{SS-WI}_i + \beta_{19} \text{SS-SP}_i + \beta_{20} \text{SS-SU}_i + \varepsilon_i$$

$$\text{F II}_i = \beta_0 + \beta_1 A_i + \beta_2 R_i + \beta_3 G_i + \beta_4 I_i + \beta_5 \text{S-IL}_i + \beta_6 \text{S-MI}_i + \beta_7 \text{S-OH}_i + \beta_8 \text{S-WI}_i + \beta_9 \text{S-ON}_i + \beta_{10} \text{OTE}_i + \beta_{11} \text{VF}_i + \beta_{12} \text{VR}_i + \beta_{13} \text{VS-WI}_i + \beta_{14} \text{VS-SP}_i + \beta_{15} \text{VS-SU}_i + \beta_{16} N_i + \beta_{17} AC_i + \beta_{18} \text{SS-WI}_i + \beta_{19} \text{SS-SP}_i + \beta_{20} \text{SS-SU}_i + \varepsilon_i$$

$$\text{OI}_i = \beta_0 + \beta_1 A_i + \beta_2 R_i + \beta_3 G_i + \beta_4 I_i + \beta_5 \text{S-IL}_i + \beta_6 \text{S-MI}_i + \beta_7 \text{S-OH}_i + \beta_8 \text{S-WI}_i + \beta_9 \text{S-ON}_i + \beta_{10} \text{OTE}_i + \beta_{11} \text{VF}_i + \beta_{12} \text{VR}_i + \beta_{13} \text{VS-WI}_i + \beta_{14} \text{VS-SP}_i + \beta_{15} \text{VS-SU}_i + \beta_{16} N_i + \beta_{17} AC_i + \beta_{18} \text{SS-WI}_i + \beta_{19} \text{SS-SP}_i + \beta_{20} \text{SS-SU}_i + \varepsilon_i$$

These OLS multiple regression models were estimated for both image factors and the Overall Image using the all-years' data; then, to validate the results, the same models

were estimated using the survey data for two different periods: 1996-1997 (the initial two years of the study) and 2001-2002 (later two years of the study). Estimation results for Factor I (The Setting/Sense of Place), Factor II (Activities/Things to do) and the Overall Image are provided in Tables 41, 42 and 43, respectively.

As can be seen in Tables 41, 42 and 43, all tolerance values are above the cutoff point of 0.19. As in the general population model, the tolerance values of Illinois, Michigan, and Ohio are the smallest across all data periods. Michigan has the lowest tolerance values across all data periods (about 0.29), which might be the result of overrepresentation of Michigan respondents in the sample.

As can be seen in Table 41, when estimated for the all-years' survey data using the two-tailed t-test, nine out of 20 independent variables were found to be significantly influential on visitors' perception of the Setting/Sense of Place Factor. These variables are race-white, income-above-the median, state-Illinois, state-Ontario, visitation frequency in Michigan, nights spent in Michigan, survey season-winter, survey season-spring, and survey season-summer. However, for the 1996-1997 data, only five of these variables remained significant; state-Illinois, nights spent in Michigan, survey season-winter, survey season-spring, and survey season-summer were not significant, and state-Ohio was added as significant this time. When applied to the 2001-2002 data, only race-white and survey seasons were found to be significantly influential on the Setting/Sense of Place Factor. Only one independent variable is significantly influential across all data periods: recent visitor respondents' race.

This means that only respondents' race is significant in explaining the Setting/Sense of Place Factor for recent visitors. This is the same as that of the general

Table 41. Recent visitor segment model test results for Factor I (The Setting/Sense of Place).

$$\mathbf{F\ I_i = \beta_0 + \beta_1 A_i + \beta_2 R_i + \beta_3 G_i + \beta_4 I_i + \beta_5 S\text{-}IL_i + \beta_6 S\text{-}MI_i + \beta_7 S\text{-}OH_i + \beta_8 S\text{-}WI_i + \beta_9 S\text{-}ON_i + \beta_{10} OTE_i + \beta_{11} VF_i + \beta_{12} VR_i + \beta_{13} VS\text{-}WI_i + \beta_{14} VS\text{-}SP_i + \beta_{15} VS\text{-}SU_i + \beta_{16} N_i + \beta_{17} AC_i + \beta_{18} SS\text{-}WI_i + \beta_{19} SS\text{-}SP_i + \beta_{20} SS\text{-}SU_i + \varepsilon_i}$$

Time Frame	All-Years*						1996-1997						2001-2002					
Model Fit	R^2=0.119		f=8.418		α =0.000		R^2=0.140		f=5.753		α=0.000		R^2=0.236		f=5.016		α=0.000	
Variables	**b**	**S.E.**	**ß**	**t**	**α**	**T.**	**b**	**S.E.**	**ß**	**t**	**α**	**T.**	**b**	**S.E.**	**ß**	**t**	**α**	**T.**
(Constant)	-.459	.155		-2.972	.003		-.133	.189		-.703	.482		-.922	.318		-2.902	.004	
Age (A)	-.002	.002	-.039	-1.422	.155	.960	.000	.002	.004	.099	.921	.954	-.003	.004	-.040	-.775	.439	.901
Race-White (R)	.418	.079	.143	5.321	**.000[a]**	.978	.371	.096	.139	3.885	**.000[a]**	.952	.370	.167	.111	2.213	**.028[b]**	.935
Gender-Female (G)	.050	.045	.030	1.107	.269	.975	-.014	.055	-.009	-.264	.792	.972	.050	.095	.026	.526	.599	.943
Income-Above-the-median (I)	.126	.056	.060	2.240	**.025[b]**	.972	.149	.070	.076	2.148	**.032[b]**	.963	.033	.110	.015	.300	.765	.934
State-Illinois (S-IL)	.281	.106	.101	2.638	**.008[a]**	.481	.138	.126	.054	1.101	.271	.511	.272	.258	.069	1.056	.292	.556
State-Michigan (S-MI)	.084	.087	.049	.972	.331	.274	.114	.100	.073	1.137	.256	.294	-.014	.190	-.007	-.075	.940	.279
State-Ohio (S-OH)	-.203	.104	-.076	-1.948	.052	.470	-.312	.120	-.131	-2.603	**.009[a]**	.477	-.140	.240	-.040	-.582	.561	.498
State-Wisconsin (S-WI)	.118	.124	.032	.951	.342	.619	.090	.142	.028	.632	.528	.615	.186	.310	.035	.599	.550	.690
State-Ontario (S-ON)	-.448	.129	-.115	-3.472	**.001[a]**	.644	-.530	.152	-.149	-3.489	**.001[a]**	.667	-.297	.279	-.066	-1.066	.287	.610
Overall travel experience (OTE)	.004	.004	.024	.839	.402	.837	.001	.005	.010	.259	.795	.833	.005	.013	.021	.360	.719	.673
Visitation frequency (VF)	.038	.011	.105	3.464	**.001[a]**	.768	.048	.014	.142	3.508	**.000[a]**	.739	.030	.025	.071	1.189	.235	.657
How recent visit-Most recent (VR)	.050	.048	.030	1.040	.298	.859	.074	.058	.048	1.279	.201	.859	.136	.109	.066	1.251	.212	.838
Visit season-Winter (VS-WI)	-.022	.076	-.009	-.288	.773	.662	-.039	.091	-.018	-.423	.673	.646	-.003	.171	-.001	-.017	.986	.710
Visit season-Spring (VS-SP)	.040	.075	.018	.537	.592	.658	-.038	.094	-.017	-.404	.686	.682	.147	.151	.057	.972	.332	.674
Visit season-Summer (VS-SU)	.015	.058	.009	.253	.800	.587	.030	.070	.020	.434	.664	.590	.054	.114	.028	.467	.641	.641
Nights (N)	.015	.006	.064	2.300	**.022[b]**	.914	.011	.007	.055	1.495	.135	.902	.028	.025	.058	1.100	.272	.854
Activities (AC)	-.013	.010	-.036	-1.283	.200	.874	-.017	.012	-.051	-1.342	.180	.844	-.082	.021	-.021	-.385	.701	.807
Survey season-Winter (SS-WI)	.301	.061	.159	4.907	**.000[a]**	.669	-.012	.074	-.007	-.166	.868	.635	.611	.127	.264	4.821	**.000[a]**	.781
Survey season-Spring (SS-SP)	.288	.065	.145	4.422	**.000[a]**	.660	-.043	.079	-.024	-.536	.592	.625	.892	.141	.360	6.335	**.000[a]**	.729
Survey season-Summer (SS-SU)	.330	.064	.166	5.135	**.000[a]**	.678	-.062	.082	-.032	-.758	.449	.671	.856	.133	.353	6.451	**.000[a]**	.786

* : The full sample including 1996, 1997, 1998, 2001 and 2002, with which the study hypotheses are tested.

[a] : indicates that a coefficient is significantly different from zero at 99% level for two way test ($p<0.01$)

[b] : indicates that a coefficient is significantly different from zero at 95% level for two way test ($p<0.05$)

Table 42. Recent visitor segment model test results for Factor II (Activities/Things to do).

$$F\ II_i = ß_0 + ß_1A_i + ß_2R_i + ß_3G_i + ß_4I_i + ß_5S\text{-}IL_i + ß_6S\text{-}MI_i + ß_7S\text{-}OH_i + ß_8S\text{-}WI_i + ß_9S\text{-}ON_i + ß_{10}OTE_i + ß_{11}VF_i + ß_{12}VR_i + ß_{13}VS\text{-}WI_i + ß_{14}VS\text{-}SP_i + ß_{15}VS\text{-}SU_i + ß_{16}N_i + ß_{17}AC_i + ß_{18}SS\text{-}WI_i + ß_{19}SS\text{-}SP_i + ß_{20}SS\text{-}SU_i + \varepsilon_i$$

Time Frame	All-Years*						1996-1997						2001-2002					
Model Fit	R^2=0.102		f=7.094		α=0.000		R^2=0.102		f=4.036		α=0.000		R^2=0.188		f=3.771		α=0.000	
Variables	**b**	**S.E.**	**ß**	**t**	**α**	**T.**	**b**	**S.E.**	**ß**	**t**	**α**	**T.**	**b**	**S.E.**	**ß**	**t**	**α**	**T.**
(Constant)	-.260	.172		-1.509	.132		-.429	.220		-1.951	.051		.116	.334		.349	.727	
Age (A)	.012	.002	.178	6.519	**.000**[a]	.960	.010	.003	.146	4.006	**.000**[a]	.954	.012	.004	.178	3.379	**.001**[a]	.901
Race-White (R)	-.131	.088	-.041	-1.496	.135	.978	-.206	.111	-.068	-1.855	.064	.952	.163	.176	.048	.930	.353	.935
Gender-Female (G)	.140	.050	.076	2.782	**.005**[a]	.975	.210	.064	.119	3.292	**.001**[a]	.972	.177	.100	.091	1.764	.079	.943
Income-Above-the-median (I)	-.154	.063	-.067	-2.449	**.014**[b]	.972	-.143	.081	-.064	-1.772	.077	.963	-.051	.116	-.023	-.442	.659	.934
State-Illinois (S-IL)	-.333	.119	-.108	-2.804	**.005**[a]	.481	-.339	.146	-.115	-2.318	**.021**[b]	.511	-.647	.271	-.160	-2.391	**.017**[b]	.556
State-Michigan (S-MI)	-.010	.096	-.005	-.105	.917	.274	.065	.117	.037	.560	.576	.294	-.241	.200	-.114	-1.205	.229	.279
State-Ohio (S-OH)	-.002	.116	-.001	-.019	.985	.470	.049	.139	.018	.355	.723	.477	-.200	.252	-.056	-.792	.429	.498
State-Wisconsin (S-WI)	-.165	.138	-.041	-1.193	.233	.619	-.130	.165	-.036	-.784	.433	.615	-.371	.326	-.068	-1.138	.256	.690
State-Ontario (S-ON)	.099	.144	.023	.689	.491	.644	.162	.177	.040	.917	.360	.667	-.132	.293	-.029	-.449	.653	.610
Overall travel experience (OTE)	-.007	.005	-.040	-1.348	.178	.837	-.004	.006	-.024	-.623	.534	.833	-.019	.014	-.086	-1.420	.157	.673
Visitation frequency (VF)	.012	.012	.029	.956	.339	.768	.013	.016	.035	.841	.401	.739	.000	.027	.000	.003	.998	.657
How recent visit-Most recent (VR)	.158	.054	.085	2.931	**.003**[a]	.859	.141	.068	.080	2.083	**.038**[b]	.859	.093	.114	.044	.812	.417	.838
Visit season-Winter (VS-WI)	.030	.085	.012	.360	.719	.662	-.004	.106	-.002	-.036	.971	.646	-.106	.180	-.035	-.591	.555	.710
Visit season-Spring (VS-SP)	.005	.084	.002	.058	.954	.658	.114	.110	.045	1.037	.300	.682	-.161	.159	-.062	-1.015	.311	.674
Visit season-Summer (VS-SU)	-.077	.064	-.042	-1.193	.233	.587	-.112	.082	-.064	-1.372	.171	.590	-.077	.120	-.040	-.639	.524	.641
Nights (N)	.001	.007	.006	.207	.836	.914	.006	.009	.026	.684	.494	.902	-.007	.026	-.015	-.274	.785	.854
Activities (AC)	.045	.011	.118	4.109	**.000**[a]	.874	.039	.014	.106	2.744	**.006**[a]	.844	.041	.022	.104	1.870	.062	.807
Survey season-Winter (SS-WI)	-.151	.068	-.072	-2.205	**.028**[b]	.669	.061	.087	.032	.707	.480	.635	-.376	.133	-.160	-2.829	**.005**[a]	.781
Survey season-Spring (SS-SP)	-.214	.073	-.097	-2.948	**.003**[a]	.660	.005	.092	.002	.050	.960	.625	-.560	.148	-.222	-3.788	**.000**[a]	.729
Survey season-Summer (SS-SU)	-.207	.072	-.094	-2.889	**.004**[a]	.678	.148	.095	.068	1.555	.120	.671	-.754	.139	-.305	-5.407	**.000**[a]	.786

* : The full sample including 1996, 1997, 1998, 2001 and 2002, with which the study hypotheses are tested.

[a] : indicates that a coefficient is significantly different from zero at 99% level for two way test ($p<0.01$)

[b] : indicates that a coefficient is significantly different from zero at 95% level for two way test ($p<0.05$)

Table 43. Recent visitor segment model test results for the Overall Image (mean image score).

$$OI_i = \beta_0 + \beta_1 A_i + \beta_2 R_i + \beta_3 G_i + \beta_4 I_i + \beta_5 S\text{-}IL_i + \beta_6 S\text{-}MI_i + \beta_7 S\text{-}OH_i + \beta_8 S\text{-}WI_i + \beta_9 S\text{-}ON_i + \beta_{10} OTE_i + \beta_{11} VF_i + \beta_{12} VR_i + \beta_{13} VS\text{-}WI_i + \beta_{14} VS\text{-}SP_i + \beta_{15} VS\text{-}SU_i + \beta_{16} N_i + \beta_{17} AC_i + \beta_{18} SS\text{-}WI_i + \beta_{19} SS\text{-}SP_i + \beta_{20} SS\text{-}SU_i + \varepsilon_i$$

Time Frame	All-Years*						1996-1997						2001-2002					
Model Fit	R^2=0.092			f=8.968	α=0.000		R^2=0.119			f=6.119	α=0.000		R^2=0.081			f=2.489	α=0.000	
Variables	**b**	**S.E.**	**ß**	**t**	**α**	**T.**	**b**	**S.E.**	**ß**	**t**	**α**	**T.**	**b**	**S.E.**	**ß**	**t**	**α**	**T.**
(Constant)	6.793	.204		33.239	.000		6.823	.293		23.257	.000		6.826	.347		19.676	.000	
Age (A)	.011	.002	.117	5.093	**.000[a]**	.966	.012	.003	.113	3.538	**.000[a]**	.957	.011	.004	.129	3.115	**.002[a]**	.947
Race-White (R)	.325	.102	.073	3.189	**.001[a]**	.973	.304	.146	.066	2.075	**.038[b]**	.961	.339	.176	.080	1.925	.055	.936
Gender-Female (G)	.252	.060	.095	4.176	**.000[a]**	.985	.239	.086	.088	2.785	**.005[a]**	.977	.263	.105	.102	2.503	**.013[b]**	.972
Income-Above-the-median (I)	-.082	.074	-.026	-1.114	.266	.963	-.008	.108	-.002	-.072	.942	.957	-.049	.120	-.017	-.405	.686	.934
State-Illinois (S-IL)	-.060	.130	-.015	-.463	.644	.489	-.174	.185	-.041	-.940	.347	.510	-.308	.230	-.076	-1.338	.181	.502
State-Michigan (S-MI)	-.040	.109	-.015	-.364	.716	.296	.056	.152	.021	.372	.710	.306	-.319	.190	-.126	-1.676	.094	.288
State-Ohio (S-OH)	-.338	.127	-.087	-2.664	**.008[a]**	.477	-.444	.177	-.112	-2.507	**.012[b]**	.489	-.295	.223	-.078	-1.323	.186	.466
State-Wisconsin (S-WI)	-.224	.152	-.042	-1.468	.142	.628	-.363	.205	-.072	-1.774	.076	.590	-.069	.299	-.011	-.230	.818	.689
State-Ontario (S-ON)	-.398	.149	-.077	-2.664	**.008[a]**	.606	-.487	.213	-.090	-2.283	**.023[b]**	.632	-.205	.256	-.044	-.803	.422	.549
Overall travel experience (OTE)	-.003	.005	-.015	-.613	.540	.844	-.001	.008	-.006	-.172	.863	.821	-.009	.011	-.036	-.777	.438	.776
Visitation frequency (VF)	.068	.015	.116	4.448	**.000[a]**	.759	.085	.022	.141	3.850	**.000[a]**	.729	.030	.028	.052	1.086	.278	.719
How recent visit-Most recent (VR)	.179	.064	.068	2.785	**.005[a]**	.849	.196	.091	.073	2.162	**.031[b]**	.857	.247	.114	.095	2.155	**.032[b]**	.832
Visit season-Winter (VS-WI)	-.088	.102	-.024	-.865	.387	.676	-.087	.143	-.023	-.609	.543	.663	-.122	.184	-.032	-.663	.507	.703
Visit season-Spring (VS-SP)	-.077	.099	-.022	-.778	.437	.657	-.063	.146	-.016	-.436	.663	.690	-.115	.166	-.034	-.691	.490	.656
Visit season-Summer (VS-SU)	-.033	.077	-.012	-.422	.673	.589	-.029	.109	-.011	-.263	.792	.591	.023	.130	.009	.180	.857	.621
Nights (N)	.016	.009	.044	1.851	.064	.908	.020	.012	.055	1.652	.099	.896	.009	.021	.019	.441	.659	.877
Activities (AC)	.045	.013	.082	3.401	**.001[a]**	.872	.035	.020	.061	1.781	.075	.840	.046	.023	.090	2.043	**.042[b]**	.832
Survey season-Winter (SS-WI)	.224	.082	.076	2.728	**.006[a]**	.660	.146	.116	.049	1.258	.209	.636	.220	.138	.075	1.592	.112	.736
Survey season-Spring (SS-SP)	.196	.087	.063	2.244	**.025[b]**	.645	.071	.124	.023	.570	.568	.611	.422	.154	.128	2.733	**.006[a]**	.738
Survey season-Summer (SS-SU)	.156	.086	.050	1.809	.071	.667	.106	.128	.032	.826	.409	.670	.164	.143	.053	1.145	.253	.747

* : The full sample including 1996, 1997, 1998, 2001 and 2002, with which the study hypotheses are tested.

[a] : indicates that a coefficient is significantly different from zero at 99% level for two way test ($p<0.01$)

[b] : indicates that a coefficient is significantly different from zero at 95% level for two way test ($p<0.05$)

population model results for the Setting/Sense of Place Factor; visitation is embedded in the results since these respondents are recent visitors already. The sign and size of β values are similar across different data periods, so the results of the all-years' data will be discussed. Since the coefficient is positive (β=0.143), white recent visitor respondents have better perception of the Setting/Sense of Place Factor than do recent visitor respondents from other race groups.

As can be seen in Table 42, for the Activities/Things to do Factor, nine variables were found to be significantly influential for the all-years' data: age, gender-female, income-above-the-median, state-Illinois, whether or not the last visit to Michigan was the most recent trip, the number of activities participated in during the last visit in Michigan, and survey seasons. For the 1996-1997 data, only the five following variables remained significant: age, gender-female, state-Illinois, whether or not the last visit to Michigan was the most recent trip, and the number of activities participated in during the last visit in Michigan. For the 2001-2002 data, age, state-Illinois and survey seasons were found to be significantly influential. Thus, for the Activities/Things to do Factor, two independent variables are significantly influential across all data periods: recent visitor respondents' age and whether or not they are from Illinois.

This means that respondents' age and whether or not they are from Illinois are significant in explaining the Activities/Things to do image for recent visitors. Age was also significant for the Activities/Things to do Factor in the general population model. The coefficient of age variable is bigger than that of state-Illinois variable, meaning, recent visitor respondents' age is more influential than whether or not they are from Illinois in explaining their images of Michigan. The sign and size of β values are similar

across different data periods, so the results of the all-years' data will be discussed. Since the coefficient for age variable is positive (β=0.178), older recent visitor respondents have better perception on the Activities/Things to do Factor than do younger recent visitor respondents. The coefficient for the state-Illinois variable, however, is negative (β= –0.108). Thus, recent visitor respondents from Illinois are more likely to have a worse perception of Michigan on the Activities/Things to do Factor than do recent visitor respondents from other states in the study region.

According to the assumption that the variables consistently influential in explaining the two image factors across all data periods must be consistently influential in explaining the Overall Image of Michigan, recent visitors' race, age and Illinois residence must be influential in explaining the Overall Image of Michigan. However, as in the results of the general population model test, this assumption did not hold true for the recent visitor segment model test either.

As can be seen in Table 43, for the Overall Image of Michigan, ten variables were found to be significantly influential for the all-years' data: age, race-white, gender-female, state-Ohio, state-Ontario, visitation frequency to Michigan, whether or not the last visit to Michigan was the most recent trip, activities participated in during the last visit in Michigan, survey season-winter and survey season-spring. For the 1996-1997 data, only the seven following variables remained significant: age, race-white, gender-female, state-Ohio, state-Ontario, visitation frequency to Michigan and whether or not the last visit to Michigan was the most recent trip. For the 2001-2002 data, age, gender-female, whether or not the last visit to Michigan was the most recent trip, activities participated in during the last visit in Michigan and survey season-spring were

significantly influential. Thus, for the Overall Image of Michigan, three independent variables are significantly influential across all data periods: recent visitor respondents' age, gender-female and whether or not their last visit to Michigan was their most recent trip.

This means that respondents' age, gender and whether or not recent visitors' last visit to Michigan was their most recent trip are significant in explaining the Overall Image of Michigan for recent visitors. Recent visitor respondents' race and Illinois residence were not significant as expected, yet two new variables were added. The coefficient of age variable is bigger than that of gender and whether or not their last visit to Michigan was their most recent trip variables, meaning, recent visitor respondents' age is more influential than their gender and whether or not their last visit to Michigan was their most recent trip in explaining their Overall Image of Michigan. The sign and size of β values are similar across different data periods, so the results of the all-years' data will be discussed. Since the coefficient for age variable is positive (β=0.117), older recent visitor respondents have better perception of the Overall Image of Michigan than do younger recent visitor respondents. The second variable in terms of the size of the influence is the gender variable; having a positive coefficient (β=0.095), female recent visitors have better perception of the Overall Image of Michigan than do male recent visitors. Finally, with a positive coefficient (β=0.064), recent visitors who visited Michigan in their most recent trip have a better perception of the Overall Image of Michigan than do recent visitors who visited Michigan in a less recent trip.

As can be seen in Tables 35, 36, 37, 41, 42 and 43, both the general population model and recent visitor segment model test results are significant for all time periods,

with very small R^2 values, however. The R^2 ranges between 0.081 and 0.246. R^2 values pertaining to the Activities/Things to do Factor are smaller for both models. There are different plausible arguments for these low R^2 values. First, selected variables may not be good explanatory variables in the regression equation as argued by Pindyck and Rubinfeld (1981). There might be other more important factors that determine these image factors of Michigan, especially the Activities/Things to do Factor, such as promotional media used by destination marketing organizations in Michigan. Also, as argued by Achen (1982) and Court and Lupton (1997), the sample is the defining factor of the variances, not the underlying relationship between the variables; the large variation in the data might be reducing the size of R^2 (Pindyck & Rubinfeld, 1981).

CHAPTER V

SUMMARY AND CONCLUSIONS

This last chapter is comprised of three sections. The first section includes a summary of findings and discussion. The second section contains the limitations of this study followed by the future research suggestions in the last section.

Summary of Results

Destination image determinant variables were defined based on the existing destination image literature and within the limits of the secondary data used in this study. Michigan's image was measured over an extended period of time. The determinants included: (1) selected sociodemographics, namely, race, gender, age, income, and the state of residence (2) selected past travel behavior variables, namely, overall travel experience, prior visitation to Michigan, the frequency of visits to Michigan, whether or not the last visit to Michigan was the most recent trip, the season of the last visit to Michigan, the length of stay in Michigan during the last visit, and the number of activities participated in during the last visit to Michigan, and (3) a methodological variable, namely, the season of the survey. The following section provides a summary of the findings of this study along with a brief discussion of them.

Michigan's Image

Over the five-year period covered in this study, Michigan has enjoyed a solid and positive image; mean scores for all Michigan image attributes remained above six on a

10-point scale across different data periods. Overall, Michigan's 'scenic appeal' has been its strongest attribute since it generally has the highest mean scores (ranging between 8.17-8.27). However, perceptions of its weaknesses have changed; its weakest image attribute was 'museums' (6.14) for the beginning years of this survey, while the weakest image dimension was the 'popular place' (7.15) attribute during the later years.

Overall, Michigan's image has improved over the five-year period since an increase is observed in ratings of the majority of the image attributes, except for the 'getaway', 'summer rec.', and 'family place', which incurred decreases in scores during the later years of the study. The difference between initial and later study periods is statistically significant for nine out of 15 attributes; namely, 'getaway'(-), 'museums', 'exciting', 'lodging', 'friendly', 'nightlife', 'family place'(-), 'popular place', and 'historic'. Over the five-year period, a decrease was observed in the standard deviation of all image attributes, statistically significant for eight attributes: 'museums', 'exciting', 'lodging', 'winter rec.', 'friendly', 'must visit', 'popular place', and 'historic'. This means Michigan's image has been stabilizing and crystallizing in the minds of current and potential tourists.

The variation in the scores of the strongest dimension, 'scenic', has always been the lowest (ranging between 2.04-2.10), meaning the perception of Michigan's scenic appeal has been not only positive, but also uniform across different types of respondents. The attribute with the highest variation in scores has been 'getaway' (ranging between 2.52-2.63), closely followed by the 'museums' attribute (ranging between 2.46-2.63). This means that perceptions of these attributes have not crystallized as much as it did for

the 'scenic' attribute. The variation could be attributed to certain people's lack of knowledge or perception on these attributes.

The improvement in Michigan's image could be due to the promotional efforts of Travel Michigan over the years, or it could be attributed to the increasing portion of Michigan residents and visitors[6] in the image-respondents group during the later years of the study. The percentage of Michigan residents in the image-respondents group is 33.1 in the 1996-1997 data, while it increased to 47.1 in the 2001-2002 data. The percentage of visitors in the image-respondents group is 75.3 in the 1996-1997 data, while it increased to 79.3 in the 2001-2002 data.

Visitors' mean image scores for all attributes are over one point higher than those of non-visitors[7] except for the 'nightlife' attribute, which is 0.82 point higher, differences between the two groups being statistically significant for all attributes. This means that Michigan is perceived as weak on the 'nightlife' attribute although visitation improves the perception of this attribute. The difference between image scores of visitors and non-visitors is the biggest for the 'family place' and 'getaway' attributes, which could mean the perception of these attributes by non-visitors is unrealistically less positive than the objective reality.

Also, standard deviations in image scores of visitors are significantly lower for all attributes except for the 'nightlife' attribute. This means that visitation induces a more uniform and stable image of Michigan. The difference is biggest for the 'getaway' and 'scenic' attributes and smallest and not significant for the 'nightlife' attribute, meaning, visitation crystallizes the 'getaway' and 'scenic' attributes more than the other attributes

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[6]: Those who visited Michigan at any time.

[7]: Those who never visited Michigan.

while such a stabilization did not occur in the perception of the 'nightlife' attribute. There is a lack of knowledge and/or perception of the 'museums' and 'nightlife' attributes of Michigan among not only non-visitors but also visitors, since the number of respondents who provided valid ratings for these items drop dramatically in both groups.

The most popular and least popular image attributes of Michigan are the same for both visitors and non-visitors, 'scenic' being the most popular or highest rated (8.54 for visitors, 7.15 for non-visitors) and 'museums' being the least popular or lowest rated (6.82 for visitors, 5.55 for non-visitors).

Exploratory factor analysis on the 15 image items yielded two factors for the all-years' data and the 2001-2002 data, while only one factor for the 1996-1997 data. The results of the all-years' data were similar to those of the 2001-2002 data with slight differences in dimensions' factor loading sizes and directions. Factor analysis was applied to visitor and non-visitor groups separately; non-visitor group results were similar to those of the 1996-1997 data, while visitor group results were similar to those of the all-years' data and especially the 2001-2002 data. The results of the all-years' data were adopted for the further analyses.

Two factors were extracted with substantial loadings of all 15 image dimensions, ten dimensions loaded onto Factor I, and five dimensions loaded onto Factor II. The factors explained 62.23% of the variation in the original variables. Factors were internally stable, with substantially high Cronbach's alphas (α=0.91 for Factor I and α=0.86 for Factor II).

Although both factors were combinations of conceptually different image dimensions and components, Factor I was named 'The Setting/Sense of Place' since it

included ten cognitive and affective dimensions of a vacation destination that is available, affordable, comfortable and functional; these attributes were 'summer rec.', 'winter rec.', 'scenic', 'family place', 'safe', 'must visit', 'popular place', 'friendly', 'value', and 'getaway'. The grand mean of this factor was 7.75, a rather high score, on the 10-point scale, where 10 means "agree completely".

Factor II was named 'Activities/Things to do' since it included dimensions that people would look for while considering a destination for pleasure trip purposes; these attributes were 'nightlife', 'museums', 'historic', 'lodging', and 'exciting'. The grand mean of this factor is 6.93, an above average score, which corresponds to a relatively high level of agreement on the 10-point scale, but not as high as that of Factor I.

Michigan is perceived as a close by destination that is good for different travel purposes; however, its touristic amenities are perceived as good but not as good as they might be. This reflects the reality of Michigan as a tourist destination; it is a destination with ample natural resources for outdoor recreation for all seasons, but it lacks big touristic attractions.

Significance of Demographics of the General Population

The influence of sociodemographics was estimated for both the general population[8] and the recent visitor group[9]. For the all-years' data, the mean age for the general population model respondents was 41.40; 88.8% of these respondents were white, 55.8% were female, and 80.7% had above the median income. Michigan respondents

[8]: Including both visitors and non-visitors.

[9]: Those who visited Michigan within the past 12 months.

comprised 35.6%, followed by Ohio and Illinois Wisconsin and Ontario, 18.3%, 17.9%, 9.3% and 9.4%, respectively.

When estimated for the Setting/Sense of Place Factor for the all-years' data, five sociodemographic image determinants included in this study were found to be significantly influential on destination image: race-white, gender-female, state-Michigan, state-Ohio, and state-Ontario. The same sociodemographics were found to be significant when estimated for the 1996-1997 data; however, the only significant one was race-white variable when estimated for the 2001-2002 data. Thus, the sociodemographic variable consistently found to be significant, thus robust in explaining the Setting/Sense of Place Factor is race-white, more specifically, whether or not respondents are white. Having a positive coefficient (β=0.105 for the all-years' data), white respondents have a better perception of the Michigan's Setting/Sense of Place Factor than do respondents from other race groups.

A similar dropout pattern was found in the estimation results for the Activities/Things to do Factor with some differences in the numbers and types of the influential variables. When estimated for the all-years' data, age, gender-female, income-above-the-median, and state-Illinois were found to be significant. Along with these variables, race-white was also significant when estimated for the 1996-1997 data. However, for the 2001-2002 data, only age and race-white were found to be significant. Thus, the only sociodemographic variable consistently significant, thus robust in explaining Michigan's Activities/Things to do Factor is respondents' age. Having a positive coefficient (β=0.159 for the all-years' data), older respondents have a better perception of Michigan's Activities/Things to do Factor than do younger respondents.

It was expected that a combination of those variables found significant in explaining the individual image factors, namely age and race-white, would also be found significant in explaining the Overall Image of Michigan (the mean image score). When estimated for the Overall Image of Michigan for the all-years' data, all sociodemographic variables were found to be significant, except for the income-above the median variable. When estimated for the 1996-1997 data, race-white was also dropped out. For the 2001-2002 data, only age and race-white were found to be significant. Thus, the only sociodemographic variable consistently significant, thus robust in explaining Michigan's overall image is age; race-white was not robust. Having a positive coefficient (β=0.113 for the all-years' data), older respondents have a better perception of Michigan's Overall Image than do younger respondents.

Significance of Demographics of the Recent Visitor Segment

The demographic profile of the recent visitor segment model respondents was found to be different from, not only all respondents, but also from all recent visitors in the all-years' dataset. Recent visitor segment model respondents were younger on average (41.95 years of age); 91.2% of them were white, 57.6% of them were female, and 80.5% of them had above-the-median income. Michigan residents comprised 61.4% of the recent visitor segment model respondents, followed by Ohio, Illinois, Wisconsin and Ontario residents, 10.6%, 9.9%, 5.4% and 4.8%, respectively.

When estimated for the Setting/Sense of Place Factor for the all-years' data, four sociodemographic variables were significant: race-white, income-above-the-median, state-Illinois, and state-Ontario. For the 1996-1997 data, three of the same variables

(race-white, income-above-the-median and state-Ontario) as well as state-Ohio were found to be significant. When estimated for the 2001-2002 data, only one of these variables was significant: race-white. Thus, the only sociodemographic variable consistently significant, thus robust in explaining the Setting/Sense of Place Factor for the recent visitors was race, more specifically, whether or not the recent visitor respondents are white. Having a positive coefficient (β=0.143 for the all-years' data), white recent visitor respondents have a better perception on the Setting/Sense of Place Factor than do recent visitor respondents from other race groups.

When estimated for the Activities/Things to do Factor for the all-years' data, age, gender-female, income-above-the-median, and state-Illinois were found significant; for the 1996-1997 data, age, gender-female and state-Illinois remained significant, while for the 2001-2002 data, only age and state-Illinois were found to be significant. Thus, only two sociodemographic variables, age and state-Illinois, were consistently significant, thus robust in explaining Michigan's Activities/Things to do Factor for recent visitors. The coefficient for the age variable is positive (β=0.178 for the all-years' data), meaning, older recent visitor respondents have a better perception of Michigan's Activities/Things to do Factor than do younger recent visitor respondents. The coefficient for the state-Illinois variable, however, was negative (β= –0.108 for the all-years' data), meaning, recent visitor respondents from Illinois are more likely to have a worse perception of Michigan on the Activities/Things to do Factor than do recent visitor respondents from other states in the study region. The coefficient of the age variable was bigger than that of the state-Illinois variable, meaning, age is a more influential determinant than Illinois residence on explaining Michigan's Activities/Things to do Factor.

According to the previously stated expectation, both age and Illinois residence should have been found influential in explaining the overall Image of Michigan. Age, race-white, gender-female, state-Ohio, and state-Ontario were found to be significant for both the all-years' and 1996-1997 data, while only age and gender-female remained significant for the 2001-2002 data. Thus, only two sociodemographic variables were consistently significant, thus robust in explaining Michigan's Overall Image for recent visitors; age is one of them as expected, but the other is gender-female instead of state-Illinois. The coefficient for the age variable is greater and positive (β=0.117 for the all-years' data), meaning, older recent visitor respondents have a better perception of Michigan's Overall Image than do younger recent visitor respondents. The coefficient for the gender-female variable is also positive (β=0.095 for the all-years' data), meaning, female recent visitor respondents have a better perception of Michigan's Overall Image than do male recent visitor respondents.

Significance of Past Travel Behavior of the General Population

Only two past travel behavior variables in the dataset were usable for the general population model: overall travel experience and prior visitation. Although overall travel experience was significant for the Setting/Sense of Place Factor in the all-years' data, it was not for the 1996-1997 or the 2001-2002 data. However, prior visitation was consistently significant across all data periods. Since its coefficient was positive (β=0.262 for the all-years' data), respondents who have visited Michigan have a better perception of the Setting/Sense of Place Factor than do non-visitors. For the Activities/Things to do Factor, only prior visitation was significant for the all-years' and the 1996-1997 data, but

not for the 2001-2002 data. Prior visitation was also consistently significant across all data periods for Michigan's Overall image, as expected. Since its coefficient was positive (β=0.288 for the all-years' data), respondents who have visited Michigan have a better perception of the Overall Image of Michigan than do non-visitors.

Significance of Past Travel Behavior of the Recent Visitor Segment

Eight past travel behavior variables were included in the recent visitor segment model, most of them related to the respondents' last visit to Michigan; these variables were: overall travel experience (the number of trips within the past 12 months), the frequency of visitation to Michigan (the number of Michigan trips within the past 12 months), whether or not the last visit to Michigan was the most recent trip, the season (winter, spring and summer) of the last visit to Michigan, the length of stay in Michigan during the last visit (the number of nights spent), and the number of activities participated in during the last visit to Michigan.

When estimated for the Setting/Sense of Place Factor, the frequency of visitation to Michigan and the length of stay during the last visit to Michigan (#of nights spent) were found to be significant for the all-years' data. For the 1996-1997 data, only the frequency of visitation to Michigan was significant, while, for the 2001-2002 data, none of these past travel behavior variables was found to be significant. For the Activities/Things to do Factor, only whether or not the last visit to Michigan was the most recent trip and the number of activities participated during the last visit to Michigan was significant for the all-years' and the 1996-1997 data; however, none of these past travel behavior variables was found to be significant for the 2001-2002 data either. For

the Overall Image of Michigan, the frequency of visitation to Michigan, whether or not the last visit to Michigan was the most recent trip and the number of activities participated in during the last visit to Michigan were found to be significant for the all-years' data. The activities variable dropped out in the 1996-1997 data, while the visitation frequency dropped out in the 2001-2002 data. Only whether or not the last visit to Michigan was the most recent trip was found to be consistently significant across all data periods. Since its coefficient was positive (β=0.068 for the all-years' data), respondents who visited Michigan during their most recent trip have a better perception of the Overall Image of Michigan than do visitors who visited Michigan during a less recent trip within the past 12 months.

Significance of the Season of the Survey

For the general population model, all three seasons (winter, spring and summer) included in the analysis, were found to be significant for both of Michigan's image factors for the all-years' and the 2001-2002 data but not for the1996-1997 data. The same pattern also existed for the recent visitor segment model. For the Overall image of the general population, survey season-winter and survey season-spring were found to be significant for only the 2001-2002 data. The same seasons were found to be significant for the recent visitor segment in all-years' data while only survey season-spring was found to be significant for the 2001-2002 data.

As well as the season of the survey, other methodological factors need to be investigated further. As was mentioned before, the image held by consumers is filtered through methodological factors while being measured and documented by researchers. In

the case of mail or telephone survey technique, maybe only those people who feel strongly positive or negative about the destination respond to the survey, leaving the images of neutral people out of the picture.

As was discussed in the results chapter, although the initial sample of this study was random, the sample included in the final model tests runs the risk of being nonrandom due to data cleaning procedures used in this study. This shows that researchers define the nature of the data not only through the data collection techniques they use, but also through data preparation and analysis procedures they use; therefore, methodological factors' impact on destination image need further attention in future research.

Models

Although several determinants were found to be significant for different data periods, estimation results were robust or significant across all data periods for only a few proposed image determinants as summarized in Table 44. Had the data been from a limited time period, such as only the initial years of the study or the later years of the study, estimation results would have included more significant variables but would not have necessarily held for other periods. This is an important finding in terms of the time validity of research results. Results of image studies might be specific to the study periods rather than across an extended period of time. Researchers need to be cautious while interpreting the results of their research and providing destination authorities with managerial suggestions such as positioning and promotion.

Table 44. Summary of all model test results.

Model	General Population Model									Recent Visitor Segment Model								
Image Factors	FI			FII			OI			FI			FII			OI		
Variables / Time Frame	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Age (A)				s	s	s	s	s	s				s	s	s	s	s	s
Race-White (R)	s	s	s		s	s	s		s	s	s	s				s	s	
Gender-Female (G)	s	s		s	s		s	s					s	s		s	s	s
Income-Above-the-median (I)				s	s					s	s		s					
State-Illinois (S-IL)				s	s		s	s		s			s	s	s			
State-Michigan (S-MI)	s	s					s	s										
State-Ohio (S-OH)	s	s					s	s			s					s	s	
State-Wisconsin (S-WI)							s	s										
State-Ontario (S-ON)	s	s					s	s		s	s					s	s	
Overall travel experience (OTE)	s																	
Visitation- Visitor (V)	s	s	s	s	s		s	s	s	-	-	-	-	-	-	-	-	-
Visitation frequency (VF)	-	-	-	-	-	-	-	-	-	s	s					s	s	
How recent visit-Most recent (VR)	-	-	-	-	-	-	-	-	-				s	s		s	s	s
Visit season-Winter (VS-WI)	-	-	-	-	-	-	-	-	-									
Visit season-Spring (VS-SP)	-	-	-	-	-	-	-	-	-									
Visit season-Summer (VS-SU)	-	-	-	-	-	-	-	-	-									
Nights (N)	-	-	-	-	-	-	-	-	-	s								
Activities (AC)	-	-	-	-	-	-	-	-	-				s	s		s		s
Survey season-Winter (SS-WI)	s		s	s		s			s	s		s	s		s	s		
Survey season-Spring (SS-SP)	s		s	s		s			s	s		s	s		s	s		s
Survey season-Summer (SS-SU)	s		s	s		s				s		s	s		s			

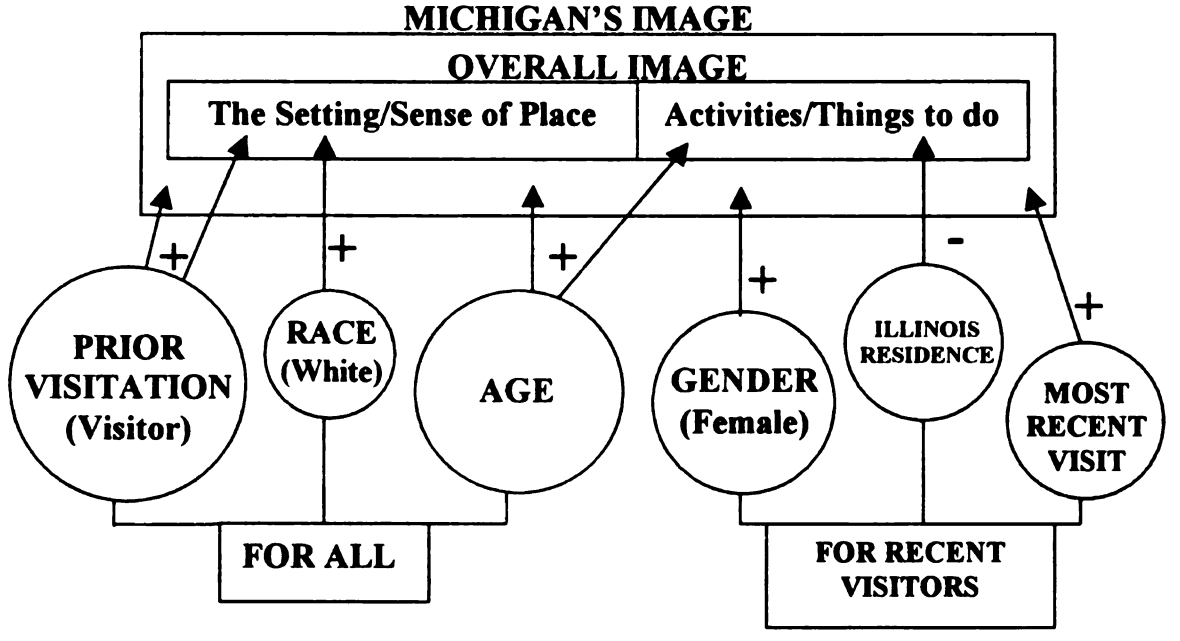
FI: The Setting/Sense of Place.
FII: Activities/Things to do.
OI: Overall Image.
s: Significant in explaining image.
1: The full sample including 1996, 1997, 1998, 2001 and 2002.
2: Initial years of the study (1996-1997).
3: Later years of the study (2001-2002).
-: Not included in the model.

With few differences, the same variables were found to be consistently significant for both the general population model and the recent visitor segment model in explaining each image factor of Michigan. This could be due to high representation of visitors in the general population model respondents group. As was mentioned in the demographics section, 79% of those general population model respondents were also visitors, who visited Michigan at some point in their lives. Or, it could be due to the robustness of the estimation results for Michigan's image determinants, not only over different time periods but also for both visitors and non-visitors.

Some of the same variables as well as few others were also found to be consistently significant for the Overall Image of Michigan. The inconsistencies between the results of the Overall Image and the two factors could be due to the following

reasons: (1) these determinants may not be stable for different measures of image or (2) the arithmetic mean of 15 image scores may not be a good measure of the Overall Image. Maybe respondents should have been asked for their overall image of Michigan; this needs further investigation in future studies.

As depicted in Figure 11, model test results revealed that Michigan's image has two factors that can be predicted with a few identified determinants. In general, the Setting/ Sense of Place Factor depends on respondents race and whether or not they visited Michigan and the Activities/Things to do Factor depends on respondents' age. However, for the recent visitor segment, also Illinois residence is a determinant of Michigan's Activities/Things to do Factor. Michigan's Overall Image also depends on age, and prior visitation, as well as gender and the most recent visitation of the recent visitors segment.



Note: The signs and sizes of the determinants are based on the signs and sizes of their standardized betas.

Figure 11. A model of Michigan's image and its determinants.

A model of destination image containing only six of the proposed determinants would be under-specified; a lot of other possible determinants might be missing in this model, especially information sources including both commercial advertising and others. As was discussed in the results chapter, estimation of both models had very small R^2 values, especially for the Activities/ Things to do Factor. Promotional information sourcing from Michigan marketing organizations could be more explanatory in explaining this factor than any other determinant. Therefore, more of these influential factors need to be integrated into these models in future studies.

Implications of Results

Positioning Michigan

Positioning is creating and maintaining a positively distinctive place for the destination in the minds of target markets, and destination image is an important part of this endeavor (Goodrich 1978; Calantone, et al. 1989; Ahmed 1991; Crompton, Fakeye, & Lue 1992; Gartner 1993; Bramwell & Rawding 1996; Baloglu & Brinberg 1997). Positioning is an important part of destination marketing due to: (1) increased competition for the same tourist markets, (2) different tastes and preferences of tourist markets, and (3) substitutability of destinations due to similarities in destination products. Therefore, travel destinations must apply different positioning for different markets taking the characteristics, perceptions and needs of these markets into consideration (Crompton, Fakeye, & Lue 1992; Joppe, Martin & Waalen 2001).

The first step in effective positioning for a destination is assessing its strengths, weaknesses, similarities, distinctive competencies, and competitive advantages in target

markets' minds in comparison with the competing destinations (Crompton, Fakeye, & Lue 1992; Baloglu & McCleary 1999). Then, the destination is differentiated in target markets' minds by selecting its unique, strong, and important attributes, and emphasizing them while communicating to the target markets (Crompton, Fakeye, & Lue 1992; Baloglu & McCleary 1999).

Michigan's Setting/ Sense of Place Factor is stronger than its Activities/Things to do Factor; therefore this factor as a whole can be used in positioning Michigan. However, since this factor is an accumulation of several attributes, it can cause a blurred image for Michigan (Aaker & Shansby 1982). Therefore, choosing the strongest attribute within this factor might result in a better positioning and clearer image for Michigan. The strongest item in this factor and among all attributes (for both visitors and non-visitors) is the 'scenic appeal' attribute. This attribute should be used with an explicit strategy to create a 'mental fix' in target markets' minds (Lovelock 1984). Michigan should be positioned as a destination with scenic beauty and serenity while boosting its touristic amenities on the side. This strategy could increase Michigan's 'popularity' attribute, which has been the weakest image attribute during the later years of the study.

Promotion of Michigan

Effective promotion is not only part of effective positioning but also necessary for effective maintenance of positive destination image. (Hunt 1975; Goodrich 1978; Reilly 1990; Court & Lupton 1997; Murphy 1999). To implement the positioning strategy defined above, promotional materials should include messages that would create the desired 'mental fix' about the position of Michigan among other destinations. An

example of such a message could be: "Experience Michigan's scenic beauty and serenity in action"

Michigan is notorious for its lack of museum and nightlife opportunities. There is a lack of perception and/or knowledge about these attributes of Michigan among both visitors and non-visitors since the number of respondents providing ratings for these attributes drop dramatically in both groups. Promotional materials should apply more coverage of these attributes showing and describing whatever Michigan has to eliminate the uncertainty about these attributes. Also, ratings of the 'getaway', 'summer rec.' and 'family place' attributes were lower during the later years of the study; these attributes need to be highlighted more in the promotional media. The differences between visitors' and non-visitors' perceptions are statistically significant for all attributes, the difference being the largest for the 'family place' and 'getaway' attributes. Testimonial advertising could be used to improve non-visitors' image of Michigan, especially 'family place' and 'getaway' qualities that are unknown to non-visitors.

Not only informative but also persuasive promotion should be targeted to non-visitors. Since visitation improves Michigan's image, promotional messages should be persuasive and framed to induce visitation, using suggestive language along with coupons for several tourism products in Michigan. Previous visitors should be persuaded to visit again by directing reminder messages to them.

Since few sociodemographic variables were found to be significant in explaining Michigan's image, segmentation should be applied to reach and convince target markets effectively. Youth and males don't perceive Michigan as exciting as others do; they should be targeted and persuaded that Michigan is more exciting than they actually think.

There seems to be apathy towards Michigan among people from race groups other than white. In the printed media, other races, including black, Asian, and Hispanic, should be reflected more to gain the attraction of other races for Michigan and to induce more visitation from these groups.

Visitors from Illinois are more likely to be disappointed with Michigan as a travel destination. This is understandable since Illinois has a bigger touristic attraction than any of those in Michigan: Chicago, the windy city that is full of touristic amenities. Also younger people, especially males, look for more action when they are on vacation. This should be considered, especially when younger people from Illinois are targeted in promotion. Promotional messages should be realistic and not inflated. Maybe, the idea of a quick getaway from the hustle and bustle of big cities could be used in promoting to the urbanized market segment.

Product Improvement in Michigan

It is obvious that Michigan needs to improve its tourism products, especially touristic activity-related attributes. The 'museums' and 'nightlife' attributes definitely need to get some attention from Michigan's destination marketing organizations since not only non-visitors but also visitors don't rate these attributes highly. Current facilities need to be improved, and new facilities need to be developed. Also, Michigan's image of these attributes could be consolidated by packaging related products and marketing to potential markets at discounted rates (Tasci, Aziz, & Holecek 2003).

In addition, other tourist attractions need to be developed. The recent addition of Michigan Adventure in Muskegon, as an alternative to Ohio's Cedar Point, has not been

highly successful possibly due to its high price for its not-so-exciting features (from personal communication with previous visitors to this facility). This adventure park is not the equal of Cedar Point in quality; so its price needs to be lowered to match its offerings and to induce more visitation not only from residents but also people from neighboring states, including the younger population of Illinois.

Limitations

There are several possible limitations that should be noted with regards to this dissertation. Their source is mainly in the secondary data used in this study, the Michigan Regional Travel Market Survey. Using this secondary data set posed limitations in terms of: (1) the nature, consistency, and relevance of the data, (2) potential bias from sampling, nonresponse and recall, and (4) the lack of generalizability.

The Nature, Consistency and Relevance of the Data

The data used in this study were collected through the Michigan Regional Travel Market Survey by the Travel Tourism and Recreation Resource Center (TTRRC) at Michigan State University. During the first three years of the study, the main sponsor of this study was Travel Michigan, Michigan's official travel bureau. Therefore, the main goal of the study was to describe Michigan's prime market characteristics and behaviors (including both visitors and non-visitors) along with measuring the effectiveness of the state's promotional efforts. Therefore, the questionnaire was designed to describe respondents' most recent trips, less recent Michigan trips, Michigan image, promotional responsiveness, and demographic characteristics. Since Travel Michigan was no longer

the sponsor of this study after 1999, questions related to Michigan image and promotional responsiveness variables were deleted from the instrument starting in 1999. However, during the last two months of 2001 and for all of 2002, the same image items were put back in the instrument with only slight modifications.

First, since the questionnaire was designed to serve the purposes of the sponsors instead of the purposes of this study, the data include general information rather than specific information that would best serve accomplishing the purposes of this study. Second, the deletion of some questions across different time periods made inclusion of some relevant variables in the regression model impossible. For example, promotion-related variables could have been useful in the image model; however, they were not used since they were included in the survey during the initial three years but not later years.

Also, some relevant sociodemographic variables are not included in this dataset. For example, respondents' education level might be a factor in their image of a specific destination. People with higher levels of education might have been exposed to more media about Michigan, thus heard or read more about Michigan. They could, therefore, have a different image of Michigan than that of less educated and informed people. Also, occupation is another missing sociodemographic variable. Farmers might have a different image of Michigan than that of business people who might have more travel experience due to their tendency to travel more, at least for business purposes.

Moreover, no psychographic variables are included in this secondary data. Some psychographic variables, especially personality type of the respondents, might be influential factors in explaining destination image. For example, those people who are characterized as analytical might have a greater tendency to search for information,

gather factual data, and base their responses on what they know rather than just their feelings as would a creative personality type.

Finally, the nature of the variables in the multiple regression model poses analytical disadvantages. It is acknowledged that one assumption of the multiple regression analysis is violated; namely, the use of the categorical rather than continuous data on several variables in the multiple regression model. Most of the variables included in the model of this study are categorical, thus had to be transformed into dummy variables. Some of these variables, such as gender, race, and the state of residence have to be categorical; however, the income variable could have been continuous which might have yielded different results in the multiple regression analyses.

If the survey was designed specifically for the purposes of this study, more focused, consistent, relevant and richer data could have been extracted. Instead, whatever relevant data were available from this lengthy survey instrument were used to carry out this study.

The Potential Bias from Sampling, Nonresponse and Recall

First, in the 1996-1998 study period, respondents were not asked the Michigan image questions if they did not take any trip within the past 12 months. However, in the 2001-2002 study period, Michigan image questions were asked of all respondents. Although the majority of the respondents (80.8%) of respondents in the initial years' data reported that they traveled during the past 12 months, the remaining proportion (19.2%) is a considerable amount of people considering the sampling scale of this study. A t-test on the mean image values for these two samples might appear viable to see if there is any

bias due to the sampling differences between these two periods. However, the results cannot be conclusive since differences in Michigan's image for these two different time periods can be attributed to many other factors including the change in Michigan's image due to the promotional activities carried by the destination marketing organizations over the course of this study.

Second, some race groups may have been underrepresented in the general population model, which was originally designed to assess the determinants of destination image for the general public. Different race groups were compared on selected key variables, namely, sociodemographics, past travel behavior, and the image of Michigan, by using Chi-square and One-way ANOVA tests. Differences between races were significant, which introduces the possibility of sampling bias into the results of the general population model developed in this study.

Also, older respondents might have been underrepresented in this study. As was discussed in the results chapter, the mean age for the image-respondents and model-respondents subgroups were younger than that of the all respondents. Older respondents were more likely to terminate the survey or not to respond to all questions asked as was discussed before. It would be logical to assume that older respondents feel fatigue or can't remember; thus, can't finish the survey or give invalid responses, such as "I don't know" or "I don't remember". Sudman and Dradburn (1973) found that older respondents had trouble in remembering their past experiences. This could be the reason for older respondents not providing valid responses for some image items, or it could be due to their discomfort with giving information about themselves over the phone. The same reason could be true for lower income respondents, who might have been

underrepresented in this study since the overwhelming majority (about 80%) of respondents used in both models had above the median income.

Bias due to nonresponse is also a possibility in this study. As was mentioned in the methods chapter, the refusal rate of the eligible respondents was about 29%. Although the check for nonresponse bias revealed few differences between respondents and non-respondents, nonresponse bias is still a concern in this study since it is impossible to assure that the sample is representative of the intended population of this study.

Another potential source of bias could be from respondents' inaccurate recall on some quantitative variables: the number of trips they took in the past 12 months, the number of trips they took in Michigan in the past 12 months, and the number of nights they spent in Michigan. The responses to these variables might contain recall bias since it is hard to remember the exact numbers of this type, especially for older respondents. Those who provided valid responses for these variables might have provided approximate responses, which could reduce the accuracy of the findings, and thus the nature and accuracy of the model test results.

Generalizability

Another possible limitation is the lack of generalizability due to the limited nature of the study region. The sampling frame of this study included Michigan, four neighboring states (Illinois, Indiana, Ohio, and Wisconsin), and the province of Ontario. Also the recent visitors group, which represented both the majority of cases included in the general population model test and all cases included in the recent visitor segment model test, included only those who visited Michigan within the past 12 months rather

than all visitors. Therefore, the results might be limited to not only these states and province, but also to recent Michigan travelers who are familiar with Michigan. Also, the majority of respondents in both models were Michigan residents; thus, the results might be biased towards residents' image of their own state.

People from distant states such as Florida might have a totally different image of Michigan than those from these neighboring states. Also visitors who did not travel to Michigan within the past 12 moths might be different in image and its determinant variables. Thus, the results of this study may not be generalizable to all current and potential tourist markets of Michigan. Since the distance to a destination is found to be an important factor in destination image, people from distant states might have distinctively different images of Michigan than those of residence of neighboring states. Furthermore, the results of this study are probably limited to Michigan's image rather than other states or cities with various unique properties and unique market characteristics.

Suggestions for Future Research

This study has once again shown that destination image is a rather complex human phenomenon with various aspects in need of further research. Based on the above discussion, several future research suggestions are provided. First, the findings of this study can be double-checked by utilizing a different survey mode (e. g., mail survey, face-to-face interview). As was mentioned before, there is a possibility of bias due to the low response rate, the high nonresponse rate as well as the high partial nonresponse from older people, people from race groups other than white, lower income respondents, and nonresident respondents. The reason could reside in methodological factors. Certain types

of people, such as older and Hispanic may still be uncomfortable with providing information about themselves over the phone. In general, the effectiveness of the telephone interviewing technique has been diminishing due to the increasing use of fax machines, answering machines, caller IDs, unknown call zappers, and the increasing telemarketing activities. People become more leery of talking to an unknown person on the phone due to the fear of becoming a subject to a scam, which has been the feeding force behind the efforts for creating a national no-call list (National Do Not Call Registry 2003) to avoid unknown callers.

For this reason, other survey modes could be used to check for the stability of the findings of this study. Mail surveys could be used to check the general model findings; Michigan visitors can be intercepted at various welcome centers in Michigan to conduct face-face surveys in an effort to check the recent visitor segment model findings. Also, the proliferation of computers and the Internet opens up more convenient, easier, cheaper and faster data collection modes for the researchers (Tasci & Knutson 2003). E-mail or Internet surveys can also be used to conduct similar surveys. Using different survey modes would also enable more investigation of the impact of methodological factors on destination image.

Second, it is recommended that a shorter and more concise survey instrument be designed to alleviate the problems of low response rate, high nonresponse, and high partial nonresponse rate. The original questionnaire utilized in the Michigan Regional Travel Market Survey was rather long, comprised of 140 questions on average. Although people rarely were asked all questions due to the skip pattern in the instrument, an interview took about 12 minutes on average to complete, extending to 20 minutes in

cases where a respondent was asked all the questions. Respondents usually asked for the amount of time the survey would take. The interviewers were informed to respond in a non-definitive way due to the skip pattern; they were allowed to say 10-15 minutes depending on answers if the respondent insisted on getting a time estimate. Interviewers' hesitance in giving time estimate and also 10-15 minutes might have turned off some respondents at the beginning of the survey. Also, some respondents might have terminated the call or hung up during the interview as they realized the survey was taking more time than they expected.

Also, since the survey instrument was not specifically designed for the purposes of this study, several questions in the survey were not directly related to this study. Therefore, the survey instrument should be designed to contain only related variables to provide more specific information for the purposes of this study: Michigan image, relevant past travel behavior variables, and sociodemographics. In addition, for a more comprehensive investigation of the determinants of destination image, other relevant variables, such as respondents' education level, occupation, and psychographic variables could also be included in a new survey instrument. Psychographics, such as the type of personality, the level of dogmatism and conservatism, lifestyle, value system, and status concerns have been found to determine the image of products in relation to their country of origin (Bilkey & Nes 1982). These factors could very well also influence destination image formation. Moreover, the promotion responsiveness variables that were used between 1996-1998 and deleted in later years could also be included in this new survey instrument to enable the test of the influence of promotion on Michigan's image for two different data periods.

For better regression results, it is recommended to use continuous variables where possible. In this study, the majority of the variables in the regression models were categorical, posing analytical disadvantages by violating the assumption of the use of continuous data in regression analysis. Some of those variables, namely, gender, race, and the residence state have to be categorical; however, the income variable could be continuous which might yield different results in the multiple regression analyses.

Third, the models tested in this study can also be tested for other sampling origins as well as for other study destinations. In other words, similar studies could be conducted to measure Michigan's image and its determinants for regions other than Midwestern states and also other destinations' images and their determinants. As was mentioned in the limitations section, the findings of this study could be specific to these states rather than generalizable across different regions in the US. Therefore, conducting similar studies in other states, especially distant states, such as Florida and California is recommended to see if the findings for Michigan hold across different regions. Also similar studies could be conducted for other states to determine if image determinants are similar or different for different states. Image determinants for a state more popular than Michigan could be different from those of Michigan.

Fourth, further analyses can be conducted on the data utilized in this study. Both the general population and the recent visitor segment models can be tested by using the individual image dimensions as the dependent variables. Doing so could reveal different determinants as significantly influential for different dimensions. For example, income could be significant in explaining the 'Michigan offers an excellent vacation value for the money' dimension. In addition, the same analyses can be run by weighting the data

towards other important sociodemographic variables. The data was weighted by the state variable in this study to adjust the sample to the actual population. The data could be weighted by age, income, and race to adjust the sample to the actual population and test if the same analyses would result in different findings. In addition, segmentation could be applied to the data to check for the compatibility between the segments created and the segments of PRIZM, lifestyle segmentation system used by Travel Michigan (Claritas 2003). In case of high compatibility, PRIZM segments can be used for effective image management activities.

A final recommendation for future research is qualitative investigation of the underlying reasons of the significant impact of visitation on destination image. Visitors provided a more positive image of Michigan across all attributes assessed in this study. One explanation could be that people have unrealistically less positive images of Michigan until they visit; once they visit, their images improve. However, one can logically expect that as well as unrealistically negative images, people could also develop unrealistically positive images about places due to romantic feelings stimulated by promotional materials. Therefore, there could be other underlying reasons to explain the consistent positive influence of visitation in this study. These reasons could be residing in psychological or socio-psychological mysteries of human beings, which could be explained through different theories in related fields of research. Gaining a better understanding of such human phenomena requires a scrutiny of the subject matter, which is more feasible using qualitative methods, such as focus groups, in-dept interviewing, observation, and photo interpretation. Therefore, qualitative methodologies should be

used in future studies to investigate the pertinence and applicability of theories in explaining visitation's significant impact on destination image.

APPENDIX A.

1996-1998 QUESTIONNAIRE

FINAL YEAR 1 CERTEC/SAPMINR PHONE SURVEY QUESTIONNAIRE 11/13/95
[ENTER DATE OF INTERVIEW]
Month > __ Day > __ Year > 19__

Hello, my name is _____. I'm calling from Michigan State University. We're conducting a study to learn how often people in the Midwest and Canada take trips. Your household was randomly selected to represent your community. We'd greatly appreciate your help in answering a few questions about trips you've made. May I speak to the adult over 17 years old who will have the next birthday? [IF THIS PERSON IS NOT AT HOME, ASK TO SPEAK TO THE ADULT AT HOME WHO WILL HAVE THE NEXT BIRTHDAY]
We're defining a "trip" as any overnight or day trip to a place at least 50 miles from your home, unless it was taken in commuting to work or school.

[RECORD GENDER OF RESPONDENT] > ___ M=Male F=Female -99=Can't determine

[DOUBLE ENTRY REQUIRED]
1. Have you taken any kind of trip in the past 12 months? > ___
1=Yes 2=No —> GO TO QUESTION 130 -99=DK/NR —> GO TO QUESTION 130

BEGIN INTRODUCTORY BLOCK
[READ OPTIONS 1-4; IF NECESSARY, PROBE FOR PRIMARY PURPOSE OF TRIP]
2. Was your most recent trip primarily for the purpose of... > ___
1=Visiting friends or relatives; 2=Recreation; 3=Business; or 4=Some other purpose? —> ASK QUESTION 3 -99=DK/NR

3. And what would that purpose be? > _____

We're defining a "pleasure trip" as any overnight or day trip to a place at least 50 miles from your home that was made for your enjoyment, including vacations, weekend getaways, shopping trips, and trips to visit friends or relatives.

4. Have you taken a pleasure trip to Illinois in the past 3 years?
[CONTINUE FOR EACH STATE/PROVINCE: "How about _____?] 1=Yes 2=No -99=DK/NR
Illinois > ___ Ohio > ___ Indiana > ___ Wisconsin > ___ Michigan > ___ Ontario > ___ Minnesota > ___

[DO NOT READ LIST]
5. During the next 12 months, do you expect to take more, fewer, or about the same number of pleasure trips as you did during the previous 12 months? > ___ 1=More 2=Fewer 3=Same -99=DK/NR

[DO NOT READ LIST; ACCEPT UP TO 3 RESPONSES]
6. Where do you turn most often when you need information to help plan a pleasure trip? > ___ ___ ___

ORGANIZATIONS
1=Chamber of commerce
2=Convention/visitors bureau
3=State travel office/ call state 800 number
4=Travel agency

PUBLICATIONS
5=Magazine(s)
6=Travel section of newspaper
7=Mobil Travel Guide
8=AAA/CAA/auto club publications
9=Other travel guide

OTHER
10=Friends/relatives/co-workers
11=CD-ROM
12=Highway welcome centers
13=Internet/on-line service
14=Travel show
15=Other source
16=No source(s)
-99=DK/NR

[READ OPTIONS 1-4]
7. Which one of the following media has been most helpful to you in selecting the destinations you have visited on pleasure trips?
1=Magazines; 2=Newspapers; 3=Television; or 4=Radio? -99=DK/NR

8. How would you rate the desirability of Illinois as a pleasure trip destination on a scale from 1 to 10, where 1 means "not at all desirable" and 10 means "very desirable?"
[REPEAT FOR EACH REMAINING STATE/PROVINCE: "How about _____?"]
STATE/ PROVINCE RATING [1-10] STATE/ PROVINCE RATING [1-10] -99=DK/NR
Illinois >___Ohio >___ Indiana > ___Wisconsin > ___ Florida > ___ Ontario > ___ Michigan > ___Colorado > ___Minnesota > ___

[END INTRODUCTORY BLOCK]
[BEGIN PROMOTIONAL AWARENESS AND RESPONSE BLOCK]

9. In the past 12 months, have you seen or heard any advertisements promoting travel to any destinations? > ___
1=Yes 2=No —> GO TO QUESTION 16 -99=DK/NR —> GO TO QUESTION 16

[ENTER UP TO 5 PLACES; PROBE FOR STATES ASSOCIATED WITH UNCOMMON PLACES; PROBE: Any other places?]
10. What places have you seen or heard ads for?

> _____
> _____
> _____
> _____
> _____

[DON'T READ]
1=Michigan or a place in Michigan mentioned 2=Only non-Michigan places mentioned ---> GO TO QUESTION 16
-99=DK/NR ---> GO TO QUESTION 16 > ___

11. On a scale from 1 to 10, where 1 means "poor" and 10 means "excellent," how would you rate the quality of the Michigan ads you've seen or heard? > ___ -99=DK/NR

[DO NOT READ LIST; PROBE TO FIT A CATEGORY]
12. Where did you see or hear the most recent ad promoting travel to Michigan? > ___ -99=DK/NR

1=TV	9=Direct mail advertisement
2=Radio	10=Internet/on-line service
3=Newspaper	11=CD-ROM
4=Magazine	12=Chamber of commerce
5=Billboard/outdoors	13=Convention and visitors bureau
6=Travel agent	14=Highway welcome center
7=Travel show	15=At the destination
8=Travel guide	16=Other

13. Did this ad promote travel to a specific destination in Michigan or travel to Michigan in general? > ___
1=Travel to a specific destination in Michigan 2=Travel to Michigan in general -99=DK/NR

14. Did the ad provide a toll-free number that people could call to request further information? > ___ 1=Yes 2=No -99=DK/NR

15. Did you contact the organization that sponsored this ad to request additional travel information? > ___1=Yes 2=No -99=DK/NR

16. Do you recall any of the slogans that are used to promote travel to any states or Canadian provinces? > ___
1=Yes 2=No ---> GO TO QUESTION 19 -99=DK/NR ---> GO TO QUESTION 19

[DO NOT READ LIST; ACCEPT UP TO 3 RESPONSES]
17. Which slogans do you recall? > ___ ___ ___
1=Illinois: "Illinois, Don't Miss It!"
2=Indiana: "You Could Use A Little Indiana"
3=Indiana: "Wander Indiana"□
4=Kentucky: "Kentucky...What You've Been Looking For"
5=Minnesota: "Explore Minnesota"
6=Michigan: "Say Yes to Michigan" [REMEMBER IF THIS IS MENTIONED]
7=Michigan: "Yes Michigan" [REMEMBER IF THIS IS MENTIONED]
8=New York: "I Love New York"
9=Ohio: "Ohio...The Heart of It All"
10=Ontario: "Discover Ontario"
11=Ontario: "Ontario: Yours to Discover"
12=Wisconsin: "Escape to Wisconsin"
13=Wisconsin: "You're Among Friends"
14=Other
18. Other > _____

[DON'T ASK IF MICHIGAN SLOGAN(S) WERE MENTIONED IN RESPONSE TO ABOVE QUESTION]
19. Have you ever heard the slogan, "Say Yes to Michigan" or "Yes Michigan"? > ___ 1=Yes 2=No -99=DK/NR

20. Have you ever heard the slogan, "Michigan: A Destination for All Seasons"? > ___ 1=Yes 2=No -99=DK/NR

21. During the past 12 months, have you called any state or province's toll-free number to request travel information? > ___
1=Yes 2=No ---> GO TO QUESTION 23 -99=DK/NR ---> GO TO QUESTION 23

[ENTER ALL STATES/PROVINCES MENTIONED; PROBE: Any others?]
22. What states' or provinces' toll-free numbers have you called? > _____
[DON'T READ] 1=Michigan mentioned ---> GO TO QUESTION 24 2=Michigan not mentioned > _

23. Do you know if the State of Michigan has a toll-free number you can call to obtain information on travel in Michigan? > ___
1=Yes 2=No -99=DK/NR

END PROMOTIONAL AWARENESS AND RESPONSE BLOCK
BEGIN MICHIGAN IMAGE BLOCK
[PROBE: What others come to mind?; ACCEPT UP TO 3 RESPONSES]

24. When you think of Michigan as a pleasure trip destination, what positive impressions, if any, come to mind?
> _____
> _____
> _____
[PROBE: What others come to mind?; ACCEPT UP TO 3 RESPONSES]
25. And what negative impressions, if any, come to mind?
> _____
> _____
> _____
[ACCEPT UP TO 3 RESPONSES]
26. What, if any, recreation activities or facilities do you feel are missing in Michigan?
> _____
> _____
> _____
[ACCEPT UP TO 3 RESPONSES]
27. What types of winter recreation opportunities do you feel Michigan is known for?
> _____
> _____
> _____

We'd like to know how much you agree or disagree with some statements about Michigan. Please use a scale from 1 to 10, where 1 means you "do not agree at all" and 10 means you "agree completely." Michigan. . . -99=DK/NR

28. Is close enough for a weekend getaway.....> ___
29. Has many interesting museums.....> ___
30. Is great for summer outdoor recreation activities.> ___
31. Is an exciting place to visit.....> ___
32. Has a lot of high quality lodging.....> ___
33. Offers much scenic appeal.....> ___
34. Is great for winter outdoor recreation activities.> ___
35. Is a good place to meet friendly people.....> ___
36. Is a place everyone should visit at least once in their lifetime.....> ___
37. Is a safe place to visit.....> ___
38. Offers exciting nightlife and entertainment.....> ___
39. Is a great place for a family vacation.....> ___
40. Is a popular destination with vacationers.....> ___
41. Has many interesting historic sites.....> ___
42. Offers an excellent vacation value for the money..> ___

END MICHIGAN IMAGE BLOCK

Now we'd like to ask you about pleasure trips that you may have taken. Again, we're defining "pleasure trips" as any overnight or day trips to places at least 50 miles from your home that were made for your enjoyment, including vacations, weekend getaways, shopping trips, and trips to visit friends or relatives.

[DOUBLE ENTRY REQUIRED]
43. In the past 12 months, have you taken any pleasure trips to any destination? > ___
1=Yes 2=No ---> GO TO QUESTION 79 -99=DK/NR ---> GO TO QUESTION 79

(ACCEPT 1-999)
44. About how many pleasure trips have you taken in the past 12 months? > ___

[IF RESPONDENT IS UNABLE TO GIVE A SPECIFIC NUMBER, PROBE:]
In the past 12 months, would you say you've taken. . .
2=1 to 3 pleasure trips? 5=4 to 6 pleasure trips? 8=7 to 9 pleasure trips? 15=10 to 20 pleasure trips?
25=More than 20 pleasure trips? -99=DK/NR
[NOTE: USE CODES ONLY IF RESPONDENT DOESN'T GIVE A SPECIFIC RESPONSE]

BEGIN CULTURAL HERITAGE TOURISM BLOCK

45. Did you visit any museums, halls of fame, or historic sites on any of the pleasure trips you took in the past 12 months? > ___
1=Yes 2=No ---> GO TO QUESTION 52 -99=DK/NR ---> GO TO QUESTION 52

46. Were any of these located in Michigan? > ___
1=Yes 2=No ---> GO TO QUESTION 50 -99=DK/NR ---> GO TO QUESTION 52

[PROBE TO FIT CATEGORIES; ACCEPT UP TO 5 RESPONSES]
47. What types of museums, halls of fame, or historic sites did you visit in Michigan? > ___ ___ ___ ___ ___

MUSEUMS/HALLS OF FAME	HISTORIC SITES	
1=Art museum	8=Battlefield	15=Home
2=Children's museum	9=Bridge	16=Lighthouse

3=Hall of Fame	10=Cemetery	17=Ship
4=Historical museum	11=Church	18=Town
5=Maritime museum	12=Farm	19=Underwater preserve
6=Natural history museum	13=Fishery	20=Other
7=Science museum	14=Fort	-99=DK/NR

48. Other > _____

49. On these pleasure trips, did you visit any museums, halls of fame, or historic sites in any other states or countries? > ___
1=Yes 2=No —> GO TO QUESTION 52 -99=DK/NR —> GO TO QUESTION 52

[PROBE TO FIT CATEGORIES; ACCEPT UP TO 5 RESPONSES]

50. What types of museums, halls of fame, or historic sites did you visit in other states or countries? > ___ ___ ___ ___ ___

MUSEUMS/HALLS OF FAME	HISTORIC SITES	
1=Art museum	8=Battlefield	15=Home
2=Children's museum	9=Bridge	16=Lighthouse
3=Hall of Fame	10=Cemetery	17=Ship
4=Historical museum	11=Church	18=Town
5=Maritime museum	12=Farm	19=Underwater preserve
6=Natural history museum	13=Fishery	20=Other
7=Science museum	14=Fort	-99=DK/NR

51. Other > _____

END CULTURAL HERITAGE TOURISM BLOCK
BEGIN BASIC PLEASURE TRIP PROFILE BLOCK

52. Now I'd like to ask you about your most recent pleasure trip.

[PROBE FOR MONTH AND DAY; ENTER NUMERICAL VALUES FOR MONTH AND DAY; IF NECESSARY, PROBE FOR BEST GUESS OF DAY]

Approximately when did this trip begin -- the month and day?

MONTH CODES

1=January	4=April	7=July	10=October
2=February	5=May	8=August	11=November
3=March	6=June	9=September	12=December

MONTH > ___ DAY > ___ -99=DK/NR

[ACCEPT UP TO 3 RESPONSES; PROBE FOR SPECIFIC PURPOSE(S), ESPECIALLY IF RESPONDENT SAYS "VACATION"]

53. What was the purpose or purposes of this trip?
> _____
> _____
> _____

[ASK IF MORE THAN 1 PURPOSE MENTIONED; PROBE FOR SPECIFIC PURPOSE, ESPECIALLY IF RESPONDENT SAYS "VACATION"]

54. What would you say was the primary purpose of this trip? > _____

[IF RESPONDENT WAS ON A GROUP TOUR, PROBE FOR SIZE OF IMMEDIATE TRAVEL PARTY AS OPPOSED TO SIZE OF ENTIRE GROUP] (ACCEPT 1-99)

55. How many persons, including yourself, were in your immediate travel party? > ___

[IF NECESSARY, PROBE FOR BEST GUESS OF AGE]

56. Beginning with yourself, please give me the gender and age of each person who went on this trip:

M=MALE F=FEMALE -55=REFUSED -99=DK/NR

	GENDER	AGE		GENDER	AGE
RESPONDENT	> ___	> ___	PERSON #2	> ___	> ___
PERSON #3	> ___	> ___	PERSON #4	> ___	> ___
PERSON #5	> ___	> ___	PERSON #6	> ___	> ___
PERSON #7	> ___	> ___	PERSON #8	> ___	> ___
PERSON #9	> ___	> ___	PERSON #10	> ___	> ___

57. Did your immediate travel party consist of family members only? > ___ 1=Yes 2=No -99=DK/NR

58. Was this an overnight or day trip? > ___
1=Overnight 2=Day trip —> GO TO QUESTION 63 -99=DK/NR —> GO TO QUESTION 63

(ACCEPT 1-999)

59. How many nights were you away from home? > ___ -99=DK/NR
(ACCEPT 0-999; IF 0, SKIP NEXT QUESTION)

60. How many nights were spent in the state containing the main destination of this trip? > ___ -99=DK/NR
(ACCEPT 0-999)

61. While you were in the state containing the main destination of this trip, about how much, if anything, did you spend per night on lodging in hotels, motels, Bed & Breakfasts, or rental cabins? > $___ -99=DK/NR

[DO NOT READ LIST UNLESS NECESSARY TO STIMULATE RESPONSES]
62. What was the main type of lodging you used? > ___ -99=DK/NR
1=Friend or relative's home 2=Hotel, motel, or lodge 3=Bed & Breakfast 4=Rented cabin, cottage, or condominium
5=Owned cabin, cottage, or condominium 6=County, state, or federal campground 7=Commercial campground (e.g., KOA)
8=Boat/ship 9=Other
[READ LIST]

63. Which, if any, of the following recreation activities did you participate in? 1=Yes 2=No -99=DK/NR
Attend a festival or event? ....> ___
Shopping? ....> ___
Casino gaming? ....> ___
Nightlife? ....> ___
Visit a museum or hall of fame? ....> ___
Visit an historic site? ....> ___
Visit some other type of attraction? ....> ___
Fall color touring outside of traveling to and from your destination? ....> ___
General touring or driving for pleasure? ....> ___
Outdoor recreation? ....> ___

[ACCEPT UP TO 5 RESPONSES] (ASK IF OUTDOOR RECREATION AFFIRMED ABOVE)
64. What outdoor recreation activities did you participate in?
> _____
> _____
> _____
> _____
> _____

END BASIC PLEASURE TRIP PROFILE BLOCK

[IF NECESSARY, PROBE FOR CITY/PLACE FARTHEST FROM HOME]
65. What was the main destination of this trip?
City/Place: > _____
State/Province/Country: > _____
[DON'T READ; DOUBLE ENTRY REQUIRED]
1=Michigan destination 2=Non-Michigan destination ---> GO TO QUESTION 78 >_

BEGIN SUPPLEMENTAL MICHIGAN PLEASURE TRIP PROFILE BLOCK

[USE NAME OF DESTINATION FROM ABOVE QUESTION IN BLANK] (ACCEPT 50-9999)
66. About how many miles did you travel to get to _____? > _____ miles -99=DK/NR

[ASK IF AT LEAST 1 RESPONSE WAS GIVEN TO QUESTION 64; USE 1ST SUCH RESPONSE IN BLANK]

67. How would you rate the quality of Michigan's _____ opportunities on a scale from 1 to 10, where 1 means "poor" and 10 means "excellent"? > ___ -99=DK/NR

(ACCEPT 0-999999)
68. What would be your best estimate of how much your immediate travel party spent altogether on this trip while in Michigan? > $_____ -99=DK/NR

69. Was this a vacation trip? > ___ 1=Yes 2=No -99=DK/NR

[ENTER RESPONSE, E.G., 90 DAYS, 2 WEEKS, 3 MONTHS]
70. About how far in advance of this trip did you make a final decision about where to go? > _____

71. Were any of the travel arrangements for this trip made by a travel agent? > ___ 1=Yes 2=No -99=DK/NR

72. For this trip, did you purchase a package, for which you paid one price, that included at least one night of lodging? > ___
1=Yes 2=No -99=DK/NR

[DO NOT READ LIST; ACCEPT UP TO 3 RESPONSES]
73. What types of transportation did you use? > ___ ___ ___ 1=Car/truck without camping equipment 2=Car/truck with camping equipment 3=Self-contained recreation vehicle 4=Rental car 5=Airplane 6=Train 7=Ship/boat 8=Motorcycle 9=Bicycle 10=Motorcoach/Bus ---> ASK QUESTION 75 11=Other ---> ENTER UNDER QUESTION 74 -99=DK/NR

74. Other > _____
75. Was this a motorcoach tour? > ___ 1=Yes 2=No -99=DK/NR
76. What did you most enjoy about this trip? > _____
77. And what did you least enjoy about this trip? > _____

GO TO QUESTION 107
END SUPPLEMENTAL MICHIGAN PLEASURE TRIP PROFILE BLOCK
[DOUBLE ENTRY REQUIRED]
78. Was a place in Michigan the main destination of any of the pleasure trips you've taken in the past 12 months? > ___
1=Yes —> GO TO QUESTION 81 2=No -99=DK/NR

79. Have you ever taken a pleasure trip to a place in Michigan? > ___ 1=Yes 2=No —> GO TO QUESTION 121

[PROBE FOR YEAR; ENTER LAST TWO DIGITS OF YEAR]
80. When was the last time you took a pleasure trip to a place in Michigan? > 19__ -99=DK/NR
GO TO QUESTION 121

BEGIN FULL MICHIGAN PLEASURE TRIP PROFILE BLOCK

[IF NECESSARY, EXPLAIN THAT WE NEED A PROFILE OF THEIR MOST RECENT PLEASURE TRIP IN MICHIGAN AS WELL AS THEIR MOST RECENT PLEASURE TRIP IN GENERAL.]

81. Now I'd like to ask you about your most recent pleasure trip in Michigan.
[PROBE FOR MONTH AND DAY; ENTER NUMERICAL VALUES FOR MONTH AND DAY; IF NECESSARY, PROBE FOR BEST GUESS OF DAY]
Approximately when did this trip begin -- the month and day?

MONTH CODES

1=January	4=April	7=July	10=October
2=February	5=May	8=August	11=November
3=March	6=June	9=September	12=December

MONTH > __ DAY > __ -99=DK/NR

[ACCEPT UP TO 3 RESPONSES; PROBE FOR SPECIFIC PURPOSE(S), ESPECIALLY IF RESPONDENT SAYS "VACATION"]
82. What was the purpose or purposes of this trip?
> _____
> _____
> _____
[ASK IF MORE THAN 1 PURPOSE MENTIONED; PROBE FOR SPECIFIC PURPOSE, ESPECIALLY IF RESPONDENT SAYS "VACATION"]

83. What would you say was the primary purpose of this trip? > _____

[IF RESPONDENT WAS ON A GROUP TOUR, PROBE FOR SIZE OF IMMEDIATE TRAVEL PARTY AS OPPOSED TO SIZE OF ENTIRE GROUP] (ACCEPT 1-99)

84. How many persons, including yourself, were in your immediate travel party? > ___
[IF NECESSARY, PROBE FOR BEST GUESS OF AGE]

85. Beginning with yourself, please give me the gender and age of each person who went on this trip:
M=MALE F=FEMALE -55=REFUSED -99=DK/NR

	GENDER	AGE		GENDER	AGE
RESPONDENT	> ___	> ___	PERSON #2	> ___	> ___
PERSON #3	> ___	> ___	PERSON #4	> ___	> ___
PERSON #5	> ___	> ___	PERSON #6	> ___	> ___
PERSON #7	> ___	> ___	PERSON #8	> ___	> ___
PERSON #9	> ___	> ___	PERSON #10	> ___	> ___

86. Did your immediate travel party consist of family members only? > ___ 1=Yes 2=No -99=DK/NR

87. Was this an overnight or day trip? > ___
1=Overnight 2=Day trip —> GO TO QUESTION 92 -99=DK/NR —> GO TO QUESTION 92

(ACCEPT 1-999)
88. How many nights were you away from home? > ___ -99=DK/NR

(ACCEPT 0-999; IF 0, SKIP NEXT QUESTION)
89. How many nights were spent in Michigan? > ___ -99=DK/NR

(ACCEPT 0-999)

90. While in Michigan, about how much, if anything, did you spend per night on lodging in hotels, motels, Bed & Breakfasts, or rental cabins? > $___ -99=DK/NR

[DO NOT READ LIST UNLESS NECESSARY TO STIMULATE RESPONSES]
91. What was the main type of lodging you used? > ___ 1=Friend's or relative's home 2=Hotel, motel, or lodge 3=Bed & Breakfast 4=Rented cabin, cottage, or condominium 5=Owned cabin, cottage, or condominium 6=County, state, or federal campground 7=Commercial campground (e.g., KOA) 8=Boat/ship 9=Other -99=DK/NR

[READ LIST]
92. Which, if any, of the following recreation activities did you participate in while you were in Michigan?
1=Yes 2=No -99=DK/NR
Attend a festival or event? ..... > ___
Shopping? ..... > ___
Casino gaming? ..... > ___
Nightlife? ..... > ___
Visit a museum or hall of fame? ..... > ___
Visit an historic site? ..... > ___
Visit some other type of attraction? ..... > ___
Fall color touring outside of traveling to and from your destination? ..... > ___
General touring or driving for pleasure? ..... > ___
Outdoor recreation? ..... > ___

[ACCEPT UP TO 5 RESPONSES] (ASK IF OUTDOOR RECREATION AFFIRMED ABOVE)
93. What outdoor recreation activities did you participate in while you were in Michigan?
> _____
> _____
> _____
> _____
> _____

[USE 1ST RECREATION ACTIVITY MENTIONED IN RESPONSE TO QUESTION 93 ABOVE IN BLANK] (ASK ONLY IF OUTDOOR RECREATION AFFIRMED IN QUESTION 92)
94. How would you rate the quality of Michigan's _____ opportunities on a scale from 1 to 10, where 1 means "poor" and 10 means "excellent"? > ___ -99=DK/NR

[IF NECESSARY, PROBE FOR CITY/PLACE FARTHEST FROM HOME]
95. What was the main destination of this trip? City/Place in Michigan: > _____

[USE NAME OF DESTINATION FROM ABOVE QUESTION IN BLANK] (ACCEPT 50-9999)
96. About how many miles did you travel to get to _____? > _____ miles -99=DK/NR

(ACCEPT 0-999999)
97. What would be your best estimate of how much your immediate travel party spent altogether on this trip while in Michigan? > $_____ -99=DK/NR

98. Was this a vacation trip? > ___ 1=Yes 2=No -99=DK/NR

[ENTER RESPONSE, E.G., 90 DAYS, 2 WEEKS, 3 MONTHS]
99. About how far in advance of this trip did you make a final decision about where to go? > _____

100. Were any of the travel arrangements for this trip made by a travel agent? > ___ 1=Yes 2=No -99=DK/NR

101. For this trip, did you purchase a package, for which you paid one price, that included at least one night of lodging? > ___
1=Yes 2=No -99=DK/NR

[DO NOT READ LIST; ACCEPT UP TO 3 RESPONSES]
102. What types of transportation did you use? > ___ ___ ___ 1=Car/truck without camping equipment 2=Car/truck with camping equipment 3=Self-contained recreation vehicle 4=Rental car 5=Airplane 6=Train 7=Ship or boat 8=Motorcycle 9=Bicycle 10=Motorcoach/Bus —> ASK QUESTION 104 11=Other —> ENTER UNDER QUESTION 103 -99=DK/NR

103. Other > _____
104. Was this a motorcoach tour? > ___ 1=Yes 2=No -99=DK/NR
105. What did you most enjoy about this trip? > _____
106. And what did you least enjoy about this trip? > _____

END FULL MICHIGAN PLEASURE TRIP PROFILE BLOCK
BEGIN INFLUENCE BLOCK

107. Before you left home for this most recent pleasure trip in Michigan, did you see or hear any advertisements about travel in Michigan? > ___ 1=Yes 2=No —> GO TO QUESTION 120 -99=DK/NR —> GO TO QUESTION 120

108. Did you see or hear 1 ad or more than 1 ad about travel in Michigan? > ___
1=1 ad 2=More than 1 ad ---> [USE THE PHRASE "THESE ADS" RATHER THAN "THIS AD" IN QUESTIONS IN THIS SECTION] -99=DK/NR

[DO NOT READ LIST; PROBE FOR ANSWERS]
109. Where did you see or hear this (these) ad(s) about travel in Michigan? > ___ -99=DK/NR

1=TV	8=Direct mail advertisement
2=Radio	9=Internet/on-line service
3=Newspaper	10=CD-ROM
4=Magazine	11=Chamber of commerce
5=Billboard/outdoors	12=Convention and visitors bureau
6=Travel agent	13=Highway welcome center
7=Travel show	14=Other

110. Did this (these) ad(s) have no influence, a partial influence, or a primary influence on your decision to travel in Michigan? > ___
1=No influence 2=Partial influence 3=Primary influence -99=DK/NR

111. Did this (these) ad(s) promote travel to a specific destination in Michigan or travel to Michigan in general? > ___
1=Travel to a specific destination in Michigan 2=Travel to Michigan in general ---> GO TO QUESTION 113
-99=DK/NR ---> GO TO QUESTION 113

112. Which destination in Michigan? > _____

113. Did the (these) ad(s) include the Michigan travel slogan? > ___
1=Yes 2=No ---> GO TO QUESTION 115 -99=DK/NR ---> GO TO QUESTION 115

114. What do you remember the slogan to be? > ___ 1="Say Yes to Michigan" 2="Yes Michigan" 3=Other -99=DK/NR

115. Did you contact the organization that sponsored this (these) ad(s) to request additional travel information? > ___
1=Yes ---> GO TO QUESTION 118 2=No -99=DK/NR

116. Did you contact any other organization to obtain travel information about Michigan? > ___
1=Yes 2=No ---> GO TO QUESTION 120 -99=DK/NR ---> GO TO QUESTION 120

117. What organization did you contact? > _____

118. Did you receive the information you requested before you left home for your trip? > ___
1=Yes 2=No ---> GO TO QUESTION 120 -99=DK/NR ---> GO TO QUESTION 120

119. Did the information on Michigan you received have no influence, a partial influence, or a primary influence on your decision to travel in Michigan? > ___ 1=No influence 2=Partial influence 3=Primary influence -99=DK/NR

END INFLUENCE BLOCK

(ACCEPT 1-999)
120. About how many pleasure trips to places in Michigan have you taken in the past 12 months? > ___ pleasure trips

[IF RESPONDENT IS UNABLE TO GIVE A SPECIFIC NUMBER, PROBE:]
In the past 12 months, would you say that you've taken. . . 2=1 to 3 pleasure trips? 5=4 to 6 pleasure trips? 8=7 to 9 pleasure trips? 15=10 to 20 pleasure trips? 25=More than 20 pleasure trips? -99=DK/NR
[NOTE: USE CODES ONLY IF RESPONDENT DOESN'T GIVE A SPECIFIC RESPONSE]

BEGIN MICHIGAN TRAVEL EXPECTATIONS BLOCK

121. During the next 12 months, do you plan to take any pleasure trips to places in Michigan? > ___
1=Yes 2=No ---> GO TO QUESTION 124 -99=DK/NR
[DO NOT READ LIST]

122. Compared to the preceding 12 months, during the next 12 months do you expect to take more, fewer, or about the same number of pleasure trips in Michigan? > ___ 1=More 2=Fewer 3=Same -99=DK/NR

123. Do you plan to take any pleasure trips in Michigan. . . 1=Yes 2=No -99=DK/NR
This fall? > ___ How about this Thanksgiving? > ___ How about this Christmas or New Years? > ___

END MICHIGAN TRAVEL EXPECTATIONS BLOCK
BEGIN MICHIGAN TRIP VOLUME BLOCK

124. Now we'd like to find out how many trips you may have recently taken in Michigan. Here we'd like to get information on any kind of trips you may have taken in Michigan, including business trips.

[RESPONSE SHOULD INCLUDE ANY TRIPS RESPONDENT MAY HAVE ALREADY TOLD YOU ABOUT] (ACCEPT 0-31; IF 0 OR DK/NR, GO TO QUESTION 130)

How many trips of any kind to places in Michigan have you taken that occurred wholly or partially during [MONTH PRECEDING CURRENT MONTH]? > _____ trips -99=DK/NR

[IF MORE THAN 1 TRIP WAS TAKEN, SAY: I'd like to ask you about the most recent trip that occurred wholly or partially during [MONTH PRECEDING CURRENT MONTH]

125. Was this trip primarily for the purpose of conducting business or attending a convention, seminar, or meeting? > ___
1=Yes ---> GO TO QUESTION 127 2=No -99=DK/NR

126. Was this trip primarily for some purpose other than business or pleasure, such as moving a household, or going to a funeral or wedding in another city? > ___ 1=Yes 2=No ---> GO TO QUESTION 130 -99=DK/NR ---> GO TO QUESTION 130

127. Was this an overnight or day trip? > ___
1=Overnight 2=Day trip ---> GO TO QUESTION 130 -99=DK/NR ---> GO TO QUESTION 130

(ACCEPT 0-999)
128. How many nights were spent in Michigan? > ___ -99=DK/NR

[DO NOT READ LIST UNLESS NECESSARY TO STIMULATE RESPONSES]
129. What was the main type of lodging you used? > ___ 1=Friend or relative's home 2=Hotel, motel, or lodge 3=Bed & Breakfast 4=Rented cabin, cottage, or condominium 5=Owned cabin, cottage, or condominium 6=County, state, or federal campground 7=Commercial campground (e.g., KOA) 8=Boat/ship 9=Other -99=DK/NR

END MICHIGAN TRIP VOLUME BLOCK
BEGIN PERSONAL/HOUSEHOLD CHARACTERISTICS BLOCK

130. To conclude, we'd like to ask just a few questions to help us classify your answers. In what city do you live? > _____
131. And your state or province? > _____
132. And your zip or postal code? > _____
133. In what county do you live? > _____

[READ LIST]
134. Do any of the following types of persons live in your household?
1=Yes 2=No -55=Refused -99=DK/NR
Pre-school child? > ___ School-age child under age 18? > ___ Senior citizen? > ___ Handicapped person? > ___

(ACCEPT 1-99)
135. How many persons, including yourself, live in your household? > ___

(ACCEPT 0-99)
136. How many full-time wage-earners live in your household? ___ -55=Refused -99=DK/NR

[READ LIST; ACCEPT UP TO 2 RESPONSES]
137. Are you..... > ___ ___ 1=Employed full-time; 2=Employed part-time; 3=Retired; 4=Not employed; 5=A homemaker; 6=A student; or 7=In some other employment situation? -99=DK/NR

138. What racial or ethnic group do you belong to? > _____

139. The median household income is $31,000. Would you say your total household income before taxes in 1994 was above or below the median? > ___ 1=Above the median 2=Below the median ---> GO TO QUESTION 141
-55=Refused [DO NOT READ] ---> GO TO QUESTION 141 -99=DK/NR ---> GO TO QUESTION 141

140. Was your total household income above $50,000? > ___ 1=Yes 2=No -55=Refused -99=DK/NR

END PERSONAL/HOUSEHOLD CHARACTERISTICS BLOCK

141. That's all the questions I have. Would you like to know the number to call for free information on travel in Michigan? > ___
1=Yes ---> The number is 1-800-5432YES. Thank you very much for your time!!! Have a good evening! [TERMINATE]
2=No ---> Thank you very much for your time!!! Have a good evening! [TERMINATE] -99=DK/NR

INTERVIEWER CODE NUMBER > _____

APPENDIX B.

1996-1998 QUESTIONNAIRE

YEAR 7 – TTRRC TELEPHONE SURVEY – QUESTIONNAIRE 1 (REVISED 03/29/02)

[ENTER INTERVIEWER CODE NUMBER; DOUBLE ENTRY REQUIRED] > __
[ENTER CODE NUMBER] > _____
[ENTER AREA CODE; DOUBLE ENTRY REQUIRED] > ___

Hello, I'm calling from Michigan State University. My name is ..... We're conducting a study on travel and tourism. May I speak to the adult, 18 or older, who will have the next birthday?
[IF THIS PERSON IS NOT AT HOME, ASK TO SPEAK TO THE ADULT AT HOME WHO WILL HAVE THE NEXT BIRTHDAY.]
We'd greatly appreciate your help in answering a few questions about trips you've made.

[ENTER GENDER OF RESPONDENT] > ___ 1=Male 2=Female -99=Cannot determine

1. Does anyone in your household own or lease a car, van, recreation vehicle, pick-up truck or sport-utility vehicle? > ___
   1=Yes 2=No → GO TO QUESTION 4 -99=DK/NR → GO TO QUESTION 4

[READ LIST.]
2. Would you say the price of gasoline has affected the amount of driving you do on pleasure tripsK > ___
   1=a great deal, 2=a little or 3=not at all? -99=DK/NR

[READ LIST.]
3. Would you say the price of gasoline has affected the amount of driving you PLAN to do on pleasure tripsK > ___
   1=a great deal, 2=a little or 3=not at all? -99=DK/NR

4. During the past twelve months, have you traveled on any highways in Michigan? > ___
   1=Yes 2=No → GO TO QUESTION 6 -99=DK/NR → GO TO QUESTION 6

5. How would you rate the overall quality of Michigan's highways on a scale from 1 to 10, where 1 means "very poor" and 10 means "outstanding"? -99=DK/NR > ___

BEGIN AIR TRAVEL BLOCK

6. Have you traveled by commercial airplane within the last 30 days? > ___
   1=Yes 2=No → GO TO QUESTION 9 -99=DK/NR → GO TO QUESTION 9

[AIR TRAVEL EXPERIENCE MEANS EXPERIENCES AT THE DEPARTURE AIRPORT, DURING THE FLIGHT AND AT THE ARRIVAL AIRPORT.]
7. On a scale from 1 to 10, where 1 means "not at all satisfied" and 10 means "extremely satisfied," how satisfied were you with your last air travel experience? > ___

[ASK THIS QUESTION ONLY IF SATISFACTION WITH AIR TRAVEL EXPERIENCE WAS RATED 1, 2 OR 3.]
8. Why were you dissatisfied with your last air travel experience?
   > _____
   > _____
   > _____

9. Have you cancelled a commercial air trip within the last 30 days? > ___
   1=Yes 2=No → GO TO QUESTION 11 -99=DK/NR → GO TO QUESTION 11

10. Why did you cancel it?
    > _____
    > _____
    > _____

END AIR TRAVEL BLOCK

BEGIN MICHIGAN IMAGE BLOCK
[ACCEPT UP TO 3 RESPONSES.]
11. As a travel destination, what do you think Michigan is known for?
    > _____
    > _____
    > _____

[ACCEPT UP TO 3 RESPONSES.]
12. What, if any, tourism-related facilities, services or opportunities do you feel are missing in Michigan?
    > _____
    > _____
    > _____

[READ.]
13. We'd like to know how much you agree or disagree with some statements about Michigan. Please use a scale from 1 to 10,

where 1 means "do not agree at all" and 10 means "agree completely." -99=DK/NR

Michigan...
[ACCEPT 1 – 10 or –99.]
Is close enough for a weekend getaway ..... > ___
Has many interesting museums ..... > ___
Is great for summer outdoor recreation activities ..... > ___
Is an exciting place to visit ..... > ___
Has a lot of high quality lodging ..... > ___
Offers much scenic appeal ..... > ___
Is great for winter outdoor recreation activities ..... > ___
Is a good place to meet friendly people ..... > ___
Is a place everyone should visit at least once in their lifetime ..... > ___
Is a safe place to visit ..... > ___
Offers exciting nightlife and entertainment ..... > ___
Is a great place for a family vacation ..... > ___
Is a popular destination with vacationers ..... > ___
Has many interesting historic sites ..... > ___
Offers an excellent vacation value for the money ..... > ___
Has great shopping opportunities ..... > ___

What is the Internet address for the Michigan's official tourism web site?
-99=DK/NR > _____

END MICHIGAN IMAGE BLOCK
BEGIN PLEASURE TRIP BLOCK

We're defining a "pleasure trip" as any overnight or day trip to a place at least 50 miles from your home that was made for your enjoyment, including vacations, weekend getaways, shopping trips, trips to a second home, and trips to visit friends or relatives.

14. On a scale from 1 to 10, where 1 means "not at all important" and 10 means "extremely important," how important is each of the following factors during your pleasure trips? -99=DK/NR
Comfort ..... > ___
Convenience ..... > ___
Cost ..... > ___
Safety and security ..... > ___

[DO NOT READ THESE OPTIONS UNLESS THE RESPONDENT DOESN'T RECALL THEM.]
15. Which one of these four factors is the most important to you during pleasure trips? > ___
1=Comfort 2=Convenience 3=Cost 4=Safety and security -99=DK/NR

[DOUBLE ENTRY REQUIRED.]
16. In the past twelve months, have you taken any day or overnight pleasure trips to any destination? > ___
1=Yes 2=No → GO TO QUESTION 55 -99=DK/NR → GO TO QUESTION 55

[ACCEPT 1 – 999.]
17. About how many pleasure trips have you taken in the past twelve months? ___

[IF RESPONDENT IS UNABLE TO GIVE A SPECIFIC NUMBER, READ THE FOLLOWING OPTIONS.]
In the past 12 months, would you say you've taken...
2=1 to 3 pleasure trips 5=4 to 6 pleasure trips 8=7 to 9 pleasure trips 15=10 to 20 pleasure trips
25=More than 20 pleasure trips -99=DK/NR

END PLEASURE TRIP BLOCK
BEGIN MOST RECENT PLEASURE TRIP PROFILE BLOCK

[ASK FOR MONTH AND DAY; ENTER NUMERICAL VALUES FOR MONTH AND DAY; IF NECESSARY, ASK FOR BEST GUESS OF DAY.]
18. Now I'd like to ask you about your most recent pleasure trip. Approximately when did this trip begin – the month and day?
MONTH > ___ *DAY* > ___ -99=DK/NR

MONTH CODES

1=January	4=April	7=July	10=October
2=February	5=May	8=August	11=November
3=March	6=June	9=September	12=December

[ACCEPT 1 – 3 RESPONSES. ASK FOR SPECIFIC PURPOSE(S), ESPECIALLY IF RESPONDENT SAYS "VACATION." ASK IF MORE THAN ONE PURPOSE MENTIONED.]
19. What was the purpose or purposes of this trip?
> _____
> _____

> _____

20. What would you say was the PRIMARY purpose of this trip?
> _____

[ACCEPT 1 – 3 RESPONSES.] [DO NOT READ THE LIST.]

21. What types of transportation did you use? > ___ ___ ___
1=Car/truck without camping equipment 2=Car/truck with camping equipment 3=Self-contained recreation vehicle
4=Rental car 5=Airplane 6=Train 7=Ship/boat 8=Motorcycle 9=Bicycle
10=Motorcoach/bus 11=Other → ENTER UNDER QUESTION 22 -99=DK/NR

22. Other >_____

[ACCEPT 1 – 99.] [IF RESPONDENT WAS ON A GROUP TOUR, ASK FOR SIZE OF IMMEDIATE TRAVEL PARTY AS OPPOSED TO SIZE OF ENTIRE GROUP.]

23. How many persons, including you, were in your immediate travel party? > ___ -99=DK/NR

[ACCEPT 1 – 130 FOR AGE VARIABLES.] [IF NECESSARY, ASK FOR RESPONDENT'S BEST GUESS OF AGE(S).]

24. Beginning with you, please give me the gender and age of each person who went on this trip:
1=Male 2=Female -55=Refused -99=DK/NR

	GENDER	AGE		GENDER	AGE
RESPONDENT >	___	___	*PERSON #2*	___	___
PERSON #3 >	___	___	*PERSON #4*	___	___
PERSON #5 >	___	___	*PERSON #6*	___	___
PERSON #7 >	___	___	*PERSON #8*	___	___
PERSON #9 >	___	___	*PERSON #10*	___	___

25. Was this an overnight or day trip? > ___
1=Overnight 2=Day trip → GO TO QUESTION 33 -99=DK/NR → GO TO QUESTION 33

[ACCEPT 1 – 999.]

26. How many nights were you away from home? > ___ -99=DK/NR

[ACCEPT 0 - 999; IF ZERO, SKIP NEXT QUESTION.]

27. How many of those nights did you spend in the state or province that was the main destination of this trip? > ___ -99=DK/NR

[ACCEPT 1 – 5 LOCATIONS.]

28. In which locations did you spend these nights?
> _____
> _____
> _____
> _____
> _____

[ACCEPT 0-999.]

29. While you were in the state or province containing the main destination of this trip, about how much, if anything, did you spend per night on lodging in hotels, motels, bed & breakfasts or rental cabins? > $___ -55=REFUSED -99=DK/NR
[DO NOT READ LIST UNLESS NECESSARY TO STIMULATE RESPONSES.]

30. What was the main type of lodging you used? > ___
1=Friend's or relative's home 2=Hotel, motel, or lodge 3=Bed & Breakfast 4=Rented cabin, cottage, or condominium
5=Owned cabin, cottage, or condominium 6=County, state, or federal campground 7=Commercial campground (e.g., KOA)
8=Boat/ship 9=Other -99=DK/NR

31. Did you spend the night at any casino hotels? > ___
1=Yes 2=No → GO TO QUESTION 33 -99=DK/NR → GO TO QUESTION 33

[ACCEPT 1 – 5 CASINO LOCATIONS.]

32. Which ones?
> _____
> _____
> _____
> _____
> _____

[READ THE LIST.] [IF RESPONDENT SAYS "YES" TO "OUTDOOR RECREATION", ASK THE NEXT QUESTION; OTHERWISE SKIP THE NEXT QUESTION.]

33. Which, if any, of the following activities did you participate in? 1=Yes 2=No -99=DK/NR

Shopping .....> ___
Nightlife .....> ___

Visit a state or national park ..... > ___
Visit a museum or hall of fame ..... > ___
Visit an historic site ..... > ___
Visit some other type of attraction ..... > ___
Explore a small city or town ..... > ___
Dine at a unique restaurant ..... > ___
Fall color touring outside of traveling to and from your destination ..... > ___
General touring or driving for pleasure ..... > ___
Outdoor recreation ..... > ___

[ACCEPT 1 – 5 RESPONSES.] [ASK ONLY IF OUTDOOR RECREATION AFFIRMED ABOVE.]

34. What outdoor recreation activities did you participate in?
> _____
> _____
> _____
> _____
> _____

35. Did you attend any festivals or events on this trip? > ___
1=Yes 2=No → GO TO QUESTION 38 -99=DK/NR → GO TO QUESTION 38

[ACCEPT 1 – 5 RESPONSES.]

36. What festivals or events did you attend?
> _____
> _____
> _____
> _____
> _____

[ACCEPT 0 - 999999.]

37. How much did you spend on-site at that/those festival(s) or event(s)? > $ ___ -55=REFUSED -99=DK/NR

38. Did you visit any farm markets, roadside produce stands or u-pick farms or orchards on this trip? > ___
1=Yes 2=No → GO TO QUESTION 42 -99=DK/NR → GO TO QUESTION 42

39. Did you purchase anything there? > ___
1=Yes 2=No → GO TO QUESTION 42 -99=DK/NR → GO TO QUESTION 42

[ACCEPT 1 – 5 RESPONSES.]

40. What did you purchase?
> _____
> _____
> _____
> _____
> _____

[ACCEPT 0 - 999999.]

41. How much did you spend in total? > $ ___ -55=REFUSED -99=DK/NR
42. Did you visit any wineries on this trip? > ___
1=Yes 2=No → GO TO QUESTION 46 -99=DK/NR → GO TO QUESTION 46

43. Did you purchase anything there? > ___
1=Yes 2=No → GO TO QUESTION 46 -99=DK/NR → GO TO QUESTION 46

[ACCEPT 1 – 5 RESPONSES.]

44. What did you purchase?
> _____
> _____
> _____
> _____
> _____

[ACCEPT 0 - 999999.]

45. How much did you spend in total? > $ ___ -55=REFUSED -99=DK/NR

46. Did you do any casino gaming on this trip? > ___
1=Yes 2=No → GO TO QUESTION 51 -55=Refused → GO TO QUESTION 51 -99=DK/NR → GO TO QUESTION 51

[ACCEPT 1 – 5 RESPONSES.]

47. Which casinos did you visit?

> _____
> _____
> _____
> _____
> _____

48. How satisfied were you with your visit to *[NAME OF FIRST CASINO MENTIONED ABOVE]* on a scale from 1 to 10, where 1 means "extremely dissatisfied" and 10 means "extremely satisfied"? > ___ -99=DK/NR

49. Did you plan to participate in casino gaming before you left home on this trip? > ___
1=Yes 2=No → GO TO QUESTION 51 -99=DK/NR → GO TO QUESTION 51

50. Was casino gaming the only reason, the primary reason or a secondary reason for this trip? > ___
1=Only 2=Primary 3=Secondary -99=DK/NR

[ACCEPT 0 - 999999.]

51. In U.S. dollars, what would be your best estimate of how much your immediate travel party spent altogether while in the state or province containing the main destination of this trip? > $_____ -55=REFUSED -99=DK/NR

[ENTER RESPONSE, E.G., 90 DAYS, 2 WEEKS, 3 MONTHS.]

52. About how far in advance of this trip did you begin to make plans for it? > _____

[IF NECESSARY, ASK FOR CITY/PLACE FARTHEST FROM HOME.]

53. What was the main destination of this trip?
City/Place > _____
State/Province/Country > _____

[DO NOT READ.] [DOUBLE ENTRY REQUIRED.]
> ___ 1=Michigan destination → GO TO QUESTION 92 2=Non-Michigan destination

END MOST RECENT PLEASURE TRIP PROFILE BLOCK

[DOUBLE ENTRY REQUIRED.]

54. Was a place in Michigan the main destination of any of the pleasure trips you've taken in the past twelve months? > ___
1=Yes → GO TO QUESTION 56 2=No -99=DK/NR

55. Have you ever taken a pleasure trip to a place in Michigan? > ___
1=Yes → GO TO QUESTION 94 2=No → GO TO QUESTION 94 -99=DK/NR → GO TO QUESTION 94

BEGIN GENERAL MICHIGAN PLEASURE TRIP PROFILE BLOCK

56. Now I'd like to ask you about your most recent pleasure trip in Michigan.

[IF NECESSARY, EXPLAIN THAT WE NEED A PROFILE OF THEIR MOST RECENT PLEASURE TRIP IN MICHIGAN AS WELL AS THEIR MOST RECENT PLEASURE TRIP IN GENERAL.]

[ASK FOR MONTH AND DAY. ENTER NUMERICAL VALUES FOR MONTH AND DAY. IF NECESSARY, ASK FOR BEST GUESS OF DAY]

Approximately when did this trip begin -- the month and day?
MONTH > __ *DAY* > __ -99=DK/NR

MONTH CODES

1=January	4=April	7=July	10=October
2=February	5=May	8=August	11=November
3=March	6=June	9=September	12=December

[ACCEPT 1 – 3 RESPONSES. ASK FOR SPECIFIC PURPOSE(S), ESPECIALLY IF RESPONDENT SAYS "VACATION."]

57. What was the purpose or purposes of this trip?
> _____
> _____
> _____

[ASK IF MORE THAN ONE PURPOSE MENTIONED: ASK FOR SPECIFIC PURPOSE, ESPECIALLY IF RESPONDENT SAYS "VACATION."]

58. What would you say was the PRIMARY purpose of this trip? > _____

[ACCEPT 1 – 3 RESPONSES.] [DO NOT READ LIST.]

59. What types of transportation did you use? > ___ ___ ___
1=Car/truck without camping equipment 2=Car/truck with camping equipment 3=Self-contained recreation vehicle
4=Rental car 5=Airplane 6=Train 7=Ship or boat 8=Motorcycle 9=Bicycle 10=Motorcoach/bus
11=Other → ENTER UNDER QUESTION 60 -99=DK/NR

60. Other > _____

[ACCEPT 1 – 99.] [IF RESPONDENT WAS ON A GROUP TOUR, ASK FOR SIZE OF IMMEDIATE TRAVEL PARTY AS OPPOSED TO SIZE OF ENTIRE GROUP.]

61. How many persons, including you, were in your immediate travel party? > ___ -99=DK/NR

[ACCEPT 1 - 130 FOR AGE VARIABLES.] [IF NECESSARY, ASK FOR RESPONDENT'S BEST GUESS OF AGE.]

62. Beginning with you, please give me the gender and age of each person who went on this trip.

1=Male 2=Female -55=Refused -99=DK/NR

	GENDER	AGE		GENDER	AGE
RESPONDENT >	___	___	PERSON #2 >	___	___
PERSON #3 >	___	___	PERSON #4 >	___	___
PERSON #5 >	___	___	PERSON #6 >	___	___
PERSON #7 >	___	___	PERSON #8 >	___	___
PERSON #9 >	___	___	PERSON #10 >	___	___

63. Was this an overnight or day trip? > ___
1=Overnight 2=Day trip → GO TO QUESTION 71 -99=DK/NR → GO TO QUESTION 71

[ACCEPT 1 – 999.]

64. How many nights were you away from home? > ___ -99=DK/NR

[ACCEPT 0 – 999; IF ZERO, SKIP NEXT QUESTION.]

65. How many nights were spent in Michigan? > ___ -99=DK/NR

[ACCEPT 1 – 5 LOCATIONS.]

66. In which locations in Michigan did you spend these nights?
> _____
> _____
> _____
> _____
> _____

[ACCEPT 0 – 999.]

67. While in Michigan, about how much, if anything, did you spend per night on lodging in hotels, motels, bed & breakfasts or rental cabins? > $___ -55=REFUSED -99=DK/NR

[DO NOT READ LIST UNLESS NECESSARY TO STIMULATE RESPONSES.]

68. What was the main type of lodging you used? > ___
1=Friend's or relative's home 2=Hotel, motel, or lodge 3=Bed & Breakfast 4=Rented cabin, cottage, or condominium
5=Owned cabin, cottage, or condominium 6=County, state, or federal campground 7=Commercial campground (e.g., KOA)
8=Boat/ship 9=Other -99=DK/NR

69. Did you spend the night at any casino hotels in Michigan? > ___
1=Yes 2=No → GO TO QUESTION 71 -55=Refused → GO TO QUESTION 71 -99=DK/NR → GO TO QUESTION 71

[ACCEPT 1 – 5 CASINO LOCATIONS.]

70. Which ones?
> _____
> _____
> _____
> _____
> _____

[READ LIST.] [IF RESPONDENT SAYS "YES" TO "OUTDOOR RECREATION", ASK THE NEXT QUESTION; OTHERWISE SKIP THE NEXT QUESTION.]

71. Which, if any, of the following activities did you participate in? 1=Yes 2=No -99=DK/NR

Shopping	> ___
Nightlife	> ___
Visit a state or national park	> ___
Visit a museum or hall of fame	> ___
Visit an historic site	> ___
Visit some other type of attraction	> ___
Explore a small city or town	> ___
Dine at a unique restaurant	> ___
Fall color touring outside of traveling to and from your destination	> ___
General touring or driving for pleasure	> ___
Outdoor recreation	> ___

[ACCEPT 1 – 5 RESPONSES.] [ASK ONLY IF OUTDOOR RECREATION AFFIRMED ABOVE.]

72. What outdoor recreation activities did you participate in while you were in Michigan?

> _____
> _____
> _____
> _____
> _____

73. Did you attend any festivals or events on this trip? >____
1=Yes 2=No → GO TO QUESTION 76 -99=DK/NR → GO TO QUESTION 76

[ACCEPT 1 – 5 RESPONSES.]

74. What festivals or events did you attend?

> _____
> _____
> _____
> _____
> _____

[ACCEPT 0 - 999999.]

75. How much did you spend on-site at that/those festival(s) or event(s)? > $ ___ -55=REFUSED -99=DK/NR

76. Did you visit any farm markets, roadside produce stands or u-pick farms or orchards on this trip? > ___
1=Yes 2=No → GO TO QUESTION 80 -99=DK/NR → GO TO QUESTION 80

77. Did you purchase anything there? > ___
1=Yes 2=No → GO TO QUESTION 80 -99=DK/NR → GO TO QUESTION 80

[ACCEPT 1 – 5 RESPONSES.]

78. What did you purchase?

> _____
> _____
> _____
> _____
> _____

[ACCEPT 0 - 999999.]

79. How much did you spend in total? > $ ___ -55=REFUSED -99=DK/NR

80. Did you visit any wineries on this trip? > ___
1=Yes 2=No → GO TO QUESTION 84 -99=DK/NR → GO TO QUESTION 84

81. Did you purchase anything there? > ___
1=Yes 2=No → GO TO QUESTION 84 -99=DK/NR → GO TO QUESTION 84

[ACCEPT 1 – 5 RESPONSES.]

82. What did you purchase?

> _____
> _____
> _____
> _____
> _____

[ACCEPT 0 - 999999.]

83. How much did you spend in total? > $ ___ -55=REFUSED -99=DK/NR

84. Did you do any casino gaming on this trip? > ___
1=Yes 2=No → GO TO QUESTION 89 -55=Refused → GO TO QUESTION 89 -99=DK/NR → GO TO QUESTION 89

[ACCEPT 1 – 5 RESPONSES.]

85. Which casinos did you visit?

> _____
> _____
> _____
> _____
> _____

[ACCEPT 1 – 10.]

86. How satisfied were you with your visit to *[NAME OF FIRST CASINO MENTIONED ABOVE]* on a scale from 1 to 10, where 1 means "extremely dissatisfied" and 10 means "extremely satisfied"? > ___ -99=DK/NR

87. Did you plan to participate in casino gaming before you left home on this trip? > ___
1=Yes 2=No → GO TO QUESTION 89 -99=DK/NR → GO TO QUESTION 89

88. Was casino gaming the only reason, the primary reason or a secondary reason for this trip? > ___
1=Only 2=Primary 3=Secondary -99=DK/NR

[ACCEPT 0 – 999999.]

89. In U.S. dollars what would be your best estimate of how much your immediate travel party spent altogether on this trip while in Michigan? > $_____ -55=REFUSED -99=DK/NR

[ENTER RESPONSE, E.G., 90 DAYS, 2 WEEKS, 3 MONTHS.]

90. About how far in advance of this trip did you begin to make plans for it? >_____

[IF NECESSARY, ASK FOR CITY/PLACE FARTHEST FROM HOME.]

91. What was the main destination of this trip?
City/Place in Michigan: > _____

END GENERAL MICHIGAN PLEASURE TRIP PROFILE BLOCK
BEGIN GENERAL MICHIGAN PLEASURE TRIP HISTORY BLOCK

92. Was this most recent pleasure trip in Michigan the first pleasure trip you've ever taken in this state? > ___
1=Yes → GO TO QUESTION 94 2=No -99=DK/NR

[ACCEPT 1 – 999.]

93. About how many pleasure trips to places in Michigan have you taken in the past twelve months? > ___

[IF RESPONDENT IS UNABLE TO GIVE A SPECIFIC NUMBER, READ THE FOLLOWING OPTIONS.]
In the past 12 months, would you say you've taken...
2=1 to 3 pleasure trips 5=4 to 6 pleasure trips 8=7 to 9 pleasure trips 15=10 to 20 pleasure trips
25=More than 20 pleasure trips -99=DK/NR

END GENERAL MICHIGAN PLEASURE TRIP HISTORY BLOCK
BEGIN MICHIGAN TRAVEL EXPECTATIONS BLOCK

94. During the next twelve months, do you expect to take more, fewer, or about the same number of pleasure trips to ANY DESTINATION as you did during the previous twelve months? >___ 1=More 2=Fewer 3=Same -99=DK/NR

95. How about to MICHIGAN? > ___
1=More 2=Fewer → GO TO QUESTION 97 3=Same → GO TO QUESTION101
(starting on March 1, 2002 → GO TO QUESTION 98)
-99=DK/NR → GO TO QUESTION101
(starting on March 1, 2002 → GO TO QUESTION 98)

96. Why do you think you will take more pleasure trips to Michigan in the next 12 months? >_____
→ GO TO QUESTION 101
(starting on March 1, 2002 → GO TO QUESTION 98)

97. Why do you think you will take fewer pleasure trips to Michigan in the next 12 months? >_____
→ GO TO QUESTION 101
(starting on March 1, 2002, no skipping)

98. Did you take a pleasure trip to Michigan during last year's Memorial Day? > ___
1=Yes 2=No -99=DK/NR

99. Do you plan to take a pleasure trip to Michigan during this year's Memorial Day? > ___
1=Yes → GO TO QUESTION 101 2=No -99=DK/NR → GO TO QUESTION 101

100. Why don't you plan to take a pleasure trip to Michigan this Memorial Day?>_____

101. Do you plan to take any pleasure trips to places in Michigan ...
1=Yes 2=No -99=DK/NR
...during this winter season? > ___
How about during the next twelve months? > ___

END MICHIGAN TRAVEL EXPECTATIONS BLOCK
BEGIN INTERNET BLOCK

102. Do you have access to the Internet? > ___
1=Yes 2=No → GO TO QUESTION 106 -99=DK/NR → GO TO QUESTION 106

103. During the past twelve months have you used the Internet to obtain travel information? ___
1=Yes 2=No -99=DK/NR

104. Have you made a travel-related purchase over the Internet in the past twelve months? > ___
1=Yes 2=No → GO TO QUESTION 106 -99=DK/NR → GO TO QUESTION 106

[ACCEPT 1 – 999.]
105. How many times? > ___

END INTERNET BLOCK
BEGIN PERSONAL/HOUSEHOLD CHARACTERISTICS BLOCK

[DO NOT READ LIST.] [DOUBLE ENTRY REQUIRED.]
106. To conclude, we'd like to ask just a few questions to help us classify your answers. In what state or province do you permanently reside? > ___
1=Illinois 2=Indian 3=Michigan 4=Minnesota 5=Ohio 6=Wisconsin 7=Ontario -99=DK/NR
107. In what county do you live? > _____
108. What is your zip or postal code? > _____
109. In what city do you live? > _____
110. On a scale from 1 to 10, where 1 means "not at all satisfied" and 10 means "extremely satisfied," how satisfied are you with the following options in YOUR HOME COMMUNITY... -99=DK/NR
The overall quality of life ..... ___
Festivals and events ..... ___
Sporting events ..... ___
Nightlife or entertainment ..... ___
Local parks and recreation opportunities (programs, open space)? .... ___

111. Do any of the following types of persons live in your household? 1=Yes 2=No -55=Refused -99=DK/NR

Pre-school child..... ___
School-age child under age 18.... ___
Senior citizen..... ___
Handicapped person..... ___

[ACCEPT 1 – 99.]
112. How many persons, including yourself, live in your household? ___ -99=DK/NR

[ACCEPT 1 – 99.]
113. How many adults over age 17, including yourself, live in your household? ___ -99=DK/NR

[ACCEPT 0 – 99.]
114. How many full-time wage earners live in your household? ___ -55=Refused -99=DK/NR

[ACCEPT 1 – 2 RESPONSES.] [DO NOT READ NUMBERS.]
115. Are you... > ___ ___ -55=Refused -99=DK/NR
1=employed full-time 2=employed part-time 3=retired 4=not employed 5=a homemaker 6=a student 7=in some other employment situation

116. What racial or ethnic group do you belong to? >_____-55=Refused -99=DK/NR

BEGIN VOLUNTEERISM BLOCK

Now we would like to ask you just a couple of questions about volunteer work. By "volunteer work" we mean NOT just belonging to an organization, but actually working in some way to help others or the environment for no monetary pay.

117. Have you done ANY volunteer work in the past 12 months? > ___
1=Yes 2=No → GO TO QUESTION 134 -99=DK/NR → GO TO QUESTION 134

[ACCEPT 0 – 366.]
118. How many times did you volunteer your time in the past 12 months? > ___

[EXAMPLES OF VOLUNTEER WORK IN MANAGEMENT OR PLANNING ACTIVITIES REALTED TO OUTDOOR RECREATION, NATURAL RESOURCES OR THE ENVIRONMENT:
- CAMPGROUND ATTENDANT OR HOST ("UNPAID")
- FUNDRAISING
- GENERAL MAINTENANCE (FACILITY INSPECTIONS, LITTER PICK UP, PAINTING, ETC.)
- INTERPRETATION/EDUCATION (DELIVER NATURE, HISTORICAL OR CULTURAL RELATED PROGRAMS, ETC.)
- MEMBERSHIP ON AN INFORMAL ADVISORY GROUP/TASK FORCE

- MEMBER OF A PLANNING TEAM
- MEMBER OF A POLICY-MAKING GROUP (FORMAL CITIZEN BOARD OR COMMISSION)
- OFFICE ASSISTANCE (ENVELOPE STUFFING, FEE COLLECTION, BOOKKEEPING, ETC.)
- RESOURCE MONITORING (BIRD COUNTS, STREAM OR WETLANDS INSPECTIONS, INVENTORIES, ETC.)
- RESOURCE STEWARDSHIP/RESTORATION (NON-NATIVE SPECIES REMOVAL, PRESCRIBED BURNS, ETC.)]

119. Excluding coaching, in the past 12 months, have you done any volunteer work that involved participating in MANAGEMENT OR PLANNING ACTIVITIES related to outdoor recreation, natural resources or the environment? > __
1=Yes 2=No → GO TO QUESTION 134 -99=DK/NR → GO TO QUESTION 134

120. In the past 12 months, what was the PRIMARY way you volunteered your time in management or planning activities related to outdoor recreation, natural resources or the environment? > _____

[ACCEPT 0 – 999.]
121. How many times did you volunteer your time this way in the past 12 months? > ___

122. For which group, agency or organization did you volunteer? > _____

123. In the past 12 months, have you volunteered your time in any OTHER way that involved management or planning activities related to outdoor recreation, natural resources or the environment? > ___
1=Yes 2=No → GO TO QUESTION 131 -99=DK/NR → GO TO QUESTION 131

124. What did you do? > _____

[ACCEPT 0 – 999.]
125. How many times did you volunteer your time this way in the past 12 months? > ___

126. For what group, agency or organization did you volunteer? > _____

127. In the past 12 months, have you volunteered your time in any ADDITIONAL way that involved management or planning activities related to outdoor recreation, natural resources or the environment? > ___
1=Yes 2=No → GO TO QUESTION 131 -99=DK/NR → GO TO QUESTION 131

128. What did you do? > _____

[ACCEPT 0 – 999.]
129. How many times did you volunteer your time this way in the past 12 months? > ___

130. What type of group, agency or organization did you volunteer with or for? > _____

[READ THE LIST.]
131. When you volunteer your labor, time and/or services for NATURAL RESOURCES, THE ENVIRONMENT OR OUTDOOR RECREATION do you expect to receive any of the following in return ... ?
1=Yes 2=No -99=DK/NR
Thanks ..... > ___
Public recognition ..... > ___
More access to managers than citizens who do not participate ..... > ___
More influence on agency/organization decisions and policies ..... > ___
Support (transportation, food/beverages, child care) ..... > ___

132. Do you expect something else not mentioned above? ___
1=Yes 2=No → GO TO QUESTION 134 -99=DK/NR → GO TO QUESTION 134

133. What else do you expect in return for your volunteering? > _____

END VOLUNTEERISM BLOCK

134. The median household income is $42,000. Would you say your total household income before taxes in 2000 was above or below the median? > ___
1=Above the median 2=Below the median → GO TO QUESTION 136
-55=Refused → GO TO QUESTION 136 -99=DK/NR → GO TO QUESTION 136

135. Was your total household income above $65,000? > ___ 1=Yes 2=No -55=Refused -99=DK/NR

END PERSONAL/HOUSEHOLD CHARACTERISTICS BLOCK

[READ.]
136. That's all the questions I have. Thank you very much for your time! Have a good evening!

[TO TERMINATE, HIT THE ENTER KEY ONCE.] > __

Legend

Special codes:
-99=DK/NR
-33=Did not travel in Michigan
-55=Refused

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