



# Participant Perceptions of the Florida Scenic Highways Program Process in Four Designated Corridors



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16. Abstract  The Florida Scenic Highways Program represents an innovative shift in state policy that encourages communities to become active in shaping, promoting, and protecting their local historical and intrinsic resources. A web-based survey was distributed to four scenic highway corridor groups that achieved designation over four years ago: Indian River Lagoon Scenic Highway, A1A Ocean Shore Scenic Highway, Old Florida Heritage Highway, and Florida Keys Scenic Highway. The survey explores community participants' attitudes toward their local scenic highway corridor program. The survey gathers information regarding the perceptions of program progress, benefits to the surrounding area, the involvement of different actors within the program, and how to improve community participation and representation.					
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**The opinions, findings, and conclusions expressed in this publication are those of the authors and not necessarily those of the State of Florida Department of Transportation.**

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Finally, we are especially indebted to the corridor management groups in the selected study areas, who opened their meeting doors to us, spent significant time and effort to share their thoughts, and freely distributed their infectious spirit. We thank them for their assistance and wish them well on their unique endeavors.

## Executive Summary

The Florida Scenic Highways Program represents an innovative shift in state policy that encourages communities to become active in shaping, promoting, and protecting their local historical and intrinsic resources. A web-based survey was distributed to four scenic highway corridor groups that achieved designation over four years ago: Indian River Lagoon, A1A Ocean Shore, Old Florida Heritage, and Florida Keys Scenic Highway. The survey explores community participants' attitudes toward their local scenic highway corridor program. The survey gathers information regarding the perceptions of program progress, benefits to the surrounding area, the involvement of different actors within the program, and how to improve community participation and representation.

The participant perceptions of the scenic highway process in the four study areas include the following:

- ✓ The scenic highways program is beneficial to both travelers and the surrounding area.
  
- ✓ The most commonly experienced community benefits include
  - 1) Preserving the character of unique areas,
  - 2) Contributing to desirable and appropriate promotion,
  - 3) Enhancing sustainable tourism opportunities, and
  - 4) Helping to attain funds that aid local environmental efforts.
  
- ✓ Participants place the most importance on
  - 1) Preserving the character of their area,
  - 2) Increasing their community's knowledge about environmental issues,
  - 3) Attaining funds that aid local environmental efforts, and
  - 4) Increasing government action on environmental issues.
  
- ✓ Florida Department of Transportation (FDOT) representatives and non-governmental organizations (NGOs) are seen as the highest contributors to the information and personnel resources used in the scenic highway process.

- ✓ Strategies that increase the likelihood of participation for all respondents are
  - 1) Keeping participants informed of meetings and meeting agendas, and
  - 2) Encouraging communication alternatives that do not necessarily involve physical attendance, such as sending suggestions through e-mail.
  
- ✓ The strategies that increase participation for not active members in particular are
  - 1) The opportunity to e-mail suggestions,
  - 2) The opportunity to vote by e-mail, and
  - 3) The opportunity to participate in an e-mail survey.
  
- ✓ Opportunities to learn about natural resources in the corridor area during scenic highway gatherings is likely to encourage *even higher participation* levels from active scenic highway members.

## Introduction

The Florida Scenic Highways Program represents an innovative shift in state policy that encourages communities to become active in shaping, promoting, and protecting their local historical and intrinsic resources. The purpose of the Florida Department of Transportation's Florida Scenic Highways Program is to identify and designate roadways that will increase visitor and resident awareness of Florida's unique resources, history, and culture. Additionally, local level scenic highway corridor groups are charged with managing designated roadways in a fashion that promotes culturally appropriate tourism and provides community enhancement. The Florida Scenic Highways Program has a well-defined eligibility, designation, and implementation process that prescribes community participation throughout planning and management.

In March 2005 a web-based survey was distributed to four scenic highway corridor groups that achieved designation over four years ago in order to explore community participants' attitudes toward their local scenic highway corridor program. The survey gathers information regarding the perceptions of program progress, benefits to the surrounding area, the involvement of different actors within the program, and suggestions to improve community participation and representation. The survey was administered by e-mail to past and present participants of the scenic highway process in four scenic highway corridors: Old Florida Heritage Highway, Indian River Lagoon Scenic Highway, Florida Keys Scenic Highway, and A1A Ocean Shore Scenic Highway.

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## Methods

### *Question development*

#### *Perceptions of local scenic highway progress on Corridor Management Plan goals*

In order to measure how participants feel about corridor specific progress, each of the highway's corridor goals were listed in a questionnaire that was sent only to that corridor group. Participants could rate each goal from "not at all achieved" to "completely achieved." Since each goal could not be assumed to be of equal importance, participants also weighted each goal from "not at all important" to "very important." Once the goals were rated and weighted, an average was

calculated to represent the perceptions of corridor goal progress. Every score from every highway group was rated on a scale that had a possible low score of one and a possible high score of 25.

#### *Community benefits*

The senior planner from the Florida Department of Transportation Scenic Highways Program consultant, Carter and Burgess, Inc., was interviewed to obtain an inside impression of general community benefits that might result from involvement in the scenic highways program. These benefits could generally be described as economic, social, or environmental in nature. While

referencing the Florida Scenic Highways Benefits Brochure, a brainstorming session with the planner produced 16 possible benefits. The general benefits produced in the brainstorming session with the planner were listed in a short questionnaire. This web-based mini-questionnaire was e-mailed to a panel of 22 scenic highway related employees including the Florida Department of Transportation's District Scenic Highway Representatives, the Scenic Highways Program consultant group, and the Scenic Highways Program State Coordinator. The "most often experienced" and "most important" benefits for each category of economic, social, and environmental benefits were used to measure the general benefits to the areas surrounding scenic highways.

*Actors in the corridor management process and community participation*

Questions relating to actors in the scenic highway process, and methods to increase community participation were created after interviews with scenic highway corridor chairpersons and board members, observations during scenic highway meetings, and a review of the community-based planning literature.

**Study Areas**

*Old Florida Heritage Highway*

Old Florida Heritage Highway is a 48-mile corridor throughout lower Alachua County in north central Florida. It encompasses State Road 441 and its undeveloped loop and spur roads (Figure 1). The Old Florida Heritage Highway was designated as a state scenic highway in June of 2001.



Figure 1. Old Florida Heritage Highway area

This scenic highway corridor is primarily rural and contains the natural area of Payne's Prairie State Preserve and the small historic towns of Micanopy and Evinston. In addition to the unspoiled 22,000-acre Payne's Prairie, the corridor contains natural recreation areas and pastoral prairies, rural homesteads, nature hiking trails, a history museum, and multiple historic sites. Tourism opportunities include swimming, fishing, bird watching, hiking, biking, visiting historic sites, scenic driving and other historical and cultural education/tourism opportunities.

*Indian River Lagoon National Scenic Highway*

Indian River Lagoon Scenic Highway is a 166-mile corridor that stretches through most of Brevard County and the northern portion of Indian River County on Florida's east coast. It encompasses the Wabasso Causeway, State Road A1A, State Road 528, U.S. 1, and County Road 402 to the Canaveral National Seashore (Figure 2). The Indian River Lagoon Scenic Highway was designated as a state scenic highway in June of 2000 and a national scenic byway in June of 2001.



Figure 2. Indian River Lagoon National Scenic Highway area

Despite containing fast growing beach towns and highly frequented areas like Cape Canaveral, the scenic highway corridor contains a diversity of seashore and estuary habitats along the Atlantic coastline and the unique Indian River Lagoon as well as other historical and cultural sites. The first nationally designated wildlife refuge, Pelican Island, as well as two other national wildlife refuges, a wildlife sanctuary, a national seashore, a state park, the Kennedy Space Center, a zoo, and several history museums exist in the corridor area. Tourism opportunities include swimming, surfing, boating, fishing, bird watching, other wildlife viewing, hiking, biking, visiting historic sites, and a myriad of other educational and pleasure tourism opportunities.

#### *Florida Keys Scenic Highway*

Florida Keys Scenic Highway is a 106-mile corridor spanning Monroe County at the southern tip of Florida. It encompasses all of US 1 in the Florida Keys (Figure 3). The Florida Keys

Scenic Highway was designated as a state scenic highway in July of 2001.

This scenic highway corridor contains a rich network of undeveloped and protected areas, rustic tropical hideaways, and tourism-oriented escapes from "the Mainland". The Keys Scenic Highway boasts several state parks, historic bridges, nature trails, beaches on both the Atlantic and Gulf of Mexico waters, a wildlife refuge and marine sanctuary, historic structures, museums, shopping, and authentic coastal dining. This scenic highway includes two other nationally designated trails: Florida's Kayaking Trail and the Overseas Heritage Trail. Travelers enjoy camping, fishing, wildlife viewing, diving, hiking, and island-to-island scenic driving.



Figure 3. Florida Keys Scenic Highway Area

#### *A1A Ocean Shore Scenic Highway*

A1A Ocean Shore Scenic Highway is a 7-mile corridor in the southern portion of Flagler County on Florida's east coast. It encompasses Beverly Beach and Flagler Beach and ends at the Volusia County line (Figure 4). The A1A Ocean Shore Scenic Highway was designated as a state scenic highway in June of 2001. A1A Ocean Shore Scenic Highway is part of a larger multi-county National Scenic Byway. A1A National Scenic Byway is 72 miles long and is made up of A1A Ocean Shore Scenic Highway



Figure 4. A1A Ocean Shore Scenic Highway area

and two additional state scenic highways. A1A Ocean Shore Scenic Highway was part of the national scenic highway designation in June of 2002.

This scenic highway corridor contains primarily natural coastal areas with small sections of controlled residential areas and quaint beach towns. In addition to the beaches that are relatively unencumbered by mass development, the corridor contains two state parks, a preserve, nature hiking trails, historical museums, and unique marshland and estuaries. Tourism opportunities include swimming, surfing, boating, fishing, bird watching, hiking, biking, camping, visiting historic education centers, and a myriad of other educational and pleasure tourism opportunities

### *Sampling frame*

Potential study respondents are participants in the corridor groups. More specifically they include the individuals who attend meetings, make decisions, and/or purposefully stay updated on the activities of the scenic highway group.

Outside of meetings, each scenic highway group transmits information to participants primarily through e-mail.

A sampling frame of the four information-sharing e-mail lists for 2005 was used to attempt a census of current participants. In addition, information-sharing e-mail lists were obtained from the time period surrounding designation, dating between 2000 and 2001. This second set of e-mail lists from a prior time period was obtained to encourage the collection of all opinions.

The sampling frame from the four case studies contained a total of 418 e-mail addresses. Sixty-five e-mails bounced back because they were no longer valid addresses. This left 353 e-mail addresses that received the web-based questionnaire. It is important to note that some of the 353 e-mail addresses might be dual addresses (i.e. one personal and one work e-mail for the same individual). Therefore, the assumed size of the population of participants (353 people) is an overestimate. Of the 353 participants, 147 responded to the online questionnaire. The response rate is 42 percent overall. Response rate varied by highway group: 54 percent for A1A Ocean Shore Scenic Highway, 50 percent for Florida Keys Scenic Highway, 45 percent for Old Florida Heritage Highway, and 32 percent for Indian River Lagoon National Scenic Highway.

### *Data collection*

A web-based questionnaire was chosen as the most appropriate survey. A link to the questionnaire was provided in e-mails sent to the e-mail information-sharing network of each scenic highway.

A four contact e-mail method that is regularly associated with web-based surveys was used: 1) a pre-notice, 2) participation request with a questionnaire link, 3) a reminder with a questionnaire link, and 4) a final reminder with a questionnaire link.

*Data filter: inactive respondents*

Some of the questions in this study are directed at individuals who are actively involved in the scenic highway process, as opposed to those who are passively involved in the process (i.e. staying updated by receiving e-mails only). Two

screening questions situated at the beginning of the survey are used to filter out the answers of inactive respondents by identifying 1) those that did not attend any meetings or 2) those that defined themselves as not at all active. The screening questions show that 72 of the 147 respondents are defined in this study as passively involved in the scenic highway corridor groups. The data filter was used when analyzing data on group progress (pages 9-10) and perceptions of actors in the scenic highway program (pages 12-14).

## Results and Discussion

### *Participant sociodemographics*

Knowing who participants are may help when structuring meetings and group activities. Over 72 percent of participants are over 50 years in age and the most commonly represented age category is 50-59 years (Figure 5). Participants are present in the age categories 30-39 and 40-49, but no representation exists for age categories under 30 (Figure 5).

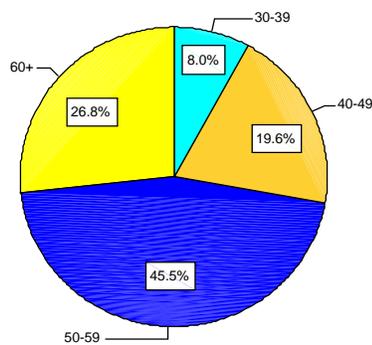


Figure 5. Age representation pie chart <sup>1</sup>  
<sup>1</sup>n = 112

Table 1. Current employment status

	Frequency	Percentage <sup>1</sup>
Full Time	75	<b>65.8</b>
Retired / Pensioner	23	20.2
Part Time	14	12.3
Unemployed	1	0.9
Homemaker (Not working outside home)	1	0.9

<sup>1</sup>Bold indicates largest percentage

Employment demands of participants also play a role in deciding meeting times and activities and when selecting methods for improving participation. The majority of participants in the four study areas are employed full time (Table 1). The second most common employment category is retired, with 20 percent of respondents falling into this category (Table 1).

The possibility that activity level could depend on a participant's leisure time is explored by analyzing employment categories according to detailed levels of activity (Table 2). The unemployed and homemaker categories are omitted from the analysis due to the very low

Table 2. Employment for multiple levels of activity<sup>1</sup>

		Zero Activity	Not Very Active	Somewhat Active	Very Active
Full-time	% Within Activity	73.7%	70.0%	74.4%	40.0%
	Frequency	14	21	32	8
Part-time	% Within Activity	5.3%	13.3%	11.6%	20.0%
	Frequency	1	4	5	4
Retired/ Pensioner	% Within Activity	21.1%	16.7%	14.0%	40.0%
	Frequency	4	5	6	8

<sup>1</sup>n = 112

frequency of one occurrence per employment category (see Table 1). When singling out who is most active, full time and retired participants equally occupy the very active category at 40 percent each (Table 2).

The respondents in the four study areas represent various lengths of residency, but the majority are long-time residents. Almost 55 percent of participants have resided in the area for over 17 years (Table 3).

The four case studies do have participants in each major income category (Figure 6). Over 53 percent of participants are in annual income brackets above 65 thousand dollars (Figure 6). The most frequently represented annual income category is above 85 thousand dollars (Figure 6).

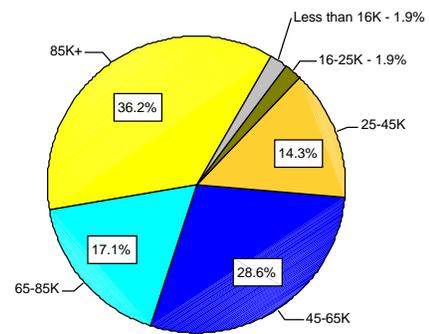


Figure 6. Income representation pie chart<sup>1</sup>  
<sup>1</sup>n = 105

### Group progress

Respondents in the four scenic highway corridor groups have similar feelings about their scenic highway group's progress towards corridor management plan goals. The scale used was from one to twenty five: 1= very low progress, 12.5 = medium progress, and 25 = very high progress.

Table 3. Years in community

	Frequency	Percentage <sup>1</sup>
0 – 4 yrs	10	8.8
5 – 8 yrs	17	15.1
9 – 12 yrs	13	11.5
13 – 16 yrs	11	9.8
17 – 20 yrs	15	13.3
21 + yrs	47	<b>41.6</b>

<sup>1</sup>Bold indicates largest percentage

Table 4. Goal progress table

	Sample size	Mean
Ind Riv	22	13.3
Old FL	17	12.1
FL Keys	22	13.1
A1A	12	15.4

The average opinion for all four corridor groups was a medium to above average progress score that varied between 12 and 15 (Table 4). Although the means differed (Table 4), the data variance in Figure 7 shows that these differences are not significant. The Old Florida Heritage Highway group has the smallest variance, with 50 percent of the scores falling between nine and 13 (Figure 7). The A1A Ocean Shore Scenic Highway group had the greatest variance, with 50 percent of the scores falling between ten and 18 (Figure 7).

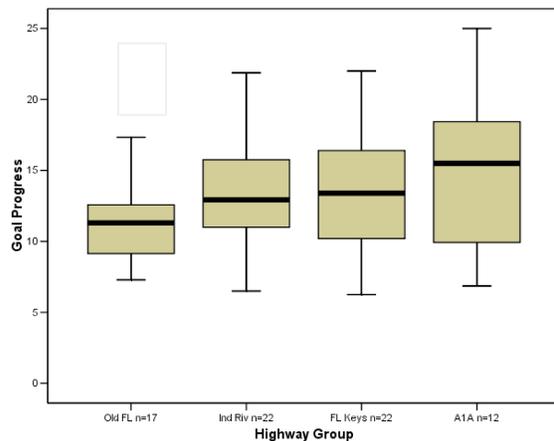


Figure 7. Goal progress box plots<sup>1</sup>  
<sup>1</sup>Solid lines indicate the median, boxes indicate the 1<sup>st</sup> and 3<sup>rd</sup> quartiles, and vertical lines indicate data range. Two high outliers were removed from Old Florida Heritage Highway.

### Benefits

Scenic highway designation and management has the potential to not only benefit highway travelers, but also to enhance the local area. Scenic highway participants view the program as

Table 5. How much does your scenic highway benefit the highway traveler<sup>1</sup>

	Frequency	Percentage <sup>2</sup>
1) Not at all	3	2.0
2) Small amount	19	12.9
3) Moderate amount	62	<b>42.2</b>
4) Large amount	63	<b>42.9</b>

<sup>1</sup>Mean = 3.26 on a 1 to 4 scale; 1=not at all, 4=large amount  
<sup>2</sup>Bold indicates largest percentage

beneficial to highway travelers (Table 5), but rate the benefits to the local area even more highly (Table 6). In the four study areas, the majority opinion is that the program enhances the area a large amount (Table 6). Participants feel that scenic highway designation and management benefits the traveler a moderate to large amount (Table 5).

The results show that the scenic highway process strongly benefits the surrounding area (see Table 6). Another topic of interest is how much importance respondents personally place on specific benefits to the local area. Opinions of importance were measured on a one to five scale: 1 = not at all important, 3 = moderately important, and 5 = very important. The top four most important benefits according to the overall mean relate to the topics of area character and environmental issues (Table 7).

Preserving the character of the area is the most important benefit in the eyes of participants (mean of 4.60). The ability of the scenic highway management process to increase knowledge about environmental issues is next in terms of importance (mean of 4.48), closely followed by helping with funding for local environmental efforts (mean of 4.45). Finally, increasing government action on environmental issues is the fourth most important benefit according to respondents' personal opinions (mean of 4.27).

Table 6. How much does your scenic highway provide overall enhancement to the area<sup>1</sup>

	Frequency	Percentage <sup>2</sup>
1) Not at all	3	2.0
2) Small amount	16	10.9
3) Moderate amount	42	28.6
4) Large amount	86	<b>58.5</b>

<sup>1</sup>Mean = 3.44 on a 1 to 4 scale; 1=not at all, 4=large amount  
<sup>2</sup>Bold indicates largest percentage

Table 7. Importance placed on specific benefits to the local area

	Sample size	Mean <sup>1</sup>	Percentage <sup>2</sup>				
			Not at all		Moderately important		Very important
			1	2	3	4	5
Helps to preserve the character of this area	123	4.60	0.8	1.6	4.1	23.6	<b>69.9</b>
Increases community's knowledge of environmental issues	123	4.48	0.0	3.3	6.5	29.3	<b>61.0</b>
Helps to obtain funding for environmental efforts	122	4.45	0.0	3.3	8.2	28.7	<b>59.8</b>
Increases government action on environmental issues	123	4.27	0.0	4.9	16.3	26.0	<b>52.8</b>
Enhances nature tourism and heritage tourism	124	4.23	2.4	4.8	13.7	25.8	<b>53.2</b>
Increases positive promotion of this area	123	4.03	3.3	8.1	17.1	25.2	<b>46.3</b>
Increases networking within or among communities	123	4.02	0.0	6.5	26.8	25.2	<b>41.5</b>
Benefits local businesses	122	3.79	4.1	11.5	23.8	23.0	<b>37.7</b>

<sup>1</sup>Means based on a 1 to 5 scale; 1=not at all, 5=very important

<sup>2</sup>Bold indicates largest percentage

Table 8. How much specific benefits occur due to the scenic highway program

	Sample size	Mean <sup>1</sup>	Percentage <sup>2</sup>				
			Not at all		Moderate amount		Large amount
			1	2	3	4	5
Helps to preserve the character of this area	125	3.89	3.2	11.2	16.0	32.8	<b>36.8</b>
Increases positive promotion of this area	125	3.78	3.2	8.8	21.6	<b>40.0</b>	26.4
Helps to obtain funding for environmental efforts	123	3.72	3.3	12.2	25.2	27.6	<b>31.7</b>
Enhances nature tourism and heritage tourism	123	3.65	1.6	12.2	<b>30.9</b>	30.1	25.2
Increases community's knowledge of environmental issues	123	3.55	4.9	12.2	26.0	<b>36.6</b>	20.3
Increases networking within or among communities	124	3.42	2.4	14.5	<b>38.7</b>	27.4	16.9
Benefits local businesses	124	3.39	4.0	19.4	<b>29.8</b>	27.4	19.4
Increases government action on environmental issues	121	3.17	9.1	18.2	<b>32.2</b>	27.3	13.2

<sup>1</sup>Means based on a 1 to 5 scale; 1=not at all, 5=large amount

<sup>2</sup>Bold indicates largest percentage

Now that respondents have expressed which benefits are most important to them for their local area (see Table 7), the study further explores which benefits are actually perceived to be occurring as a result of scenic highway designation and management. Opinions of benefit occurrence were measured on a one to five scale: 1 = not at all experienced, 3 = experienced a moderate amount, and 5 = experienced a large amount. According to the overall mean, the top four benefits that are experienced most abundantly not only focus on area character and environmental issues, but also include the topics of promotion and tourism (Table 8).

The benefit rated as most largely experienced is preserving the character of the area (mean of 3.89). This benefit, consequently, is also most important to participants. The second most largely experienced benefit is increasing positive promotion of the local area (mean of 3.78). This benefit is followed by the scenic highway program's ability to help secure funding for environmental efforts (mean of 3.72). The fourth most largely experienced benefit as a result of scenic highway designation and management is the enhancement of nature tourism and heritage tourism (mean of 3.65). Increasing government action on environmental issues, although rated in the top four regarding importance, is not seen as occurring in large quantities (mean of 3.17). However, this important benefit is still rated as moderately present.

### Actors

The collaborative design of the Florida Scenic Highways Program involves many different actors: Florida

Department of Transportation (FDOT) employees, such as District Scenic Highway Representatives, non-governmental organization (NGO) representatives, local government agency employees, regional and state government employees in departments other than FDOT, community residents, and contracted private consultants, just to name a few. These different actors are mobilized to help make scenic highway management a reality. Each scenic highway corridor management group depends on these actors to varying degrees for information, time to dedicate to management tasks, and expertise to accomplish those tasks.

Respondents shared their perceptions of which actors contributed most to the information, time, and expertise needs of scenic highway management in their corridors (Figure 8). Opinions of non-monetary actor contribution were measured on a one to five scale: 1 = not contributing, 3 = contributing a moderate amount, and 5 = contributing a large amount.

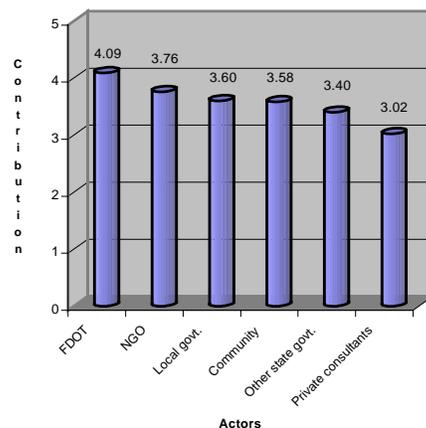


Figure 8. Contributions of information and expertise by various actors<sup>1</sup>

<sup>1</sup>Means based on a 1 to 5 scale; 1=not contributing, 5=contributing a large amount

Table 9. The value of governmental and non-governmental organizations to the scenic highway program

	Sample size	Mean <sup>1</sup>	Percentage <sup>2</sup>				
			Not at all valuable	Not very valuable	Somewhat valuable	Valuable	Extremely valuable
NGO	65	4.15	1.5	3.1	23.1	23.1	<b>49.2</b>
Local government	74	3.69	4.1	12.2	20.3	<b>37.8</b>	25.7

<sup>1</sup>Means based on a 1 to 5 scale; 1=not at all valuable, 5=extremely valuable

<sup>2</sup>Bold indicates largest percentage

According to the overall mean, all of the actors are perceived to contribute some information and expertise. The top four selections for actors contributing information, time and expertise are FDOT representatives, NGO representatives, local government representatives, and community members not affiliated with the above groups, in that order.

Many actors are important for collaboration. However, local government representatives and NGO representatives can have particularly pivotal roles in scenic highway management. Local government representatives understand the local political process and the local planning policy context. They have resources and networks that assist in pursuing the corridor vision and integrating the corridor vision into the overall planning scheme. NGOs or local advocacy groups have the ability to act as an organized voice for portions of the community. Because NGOs have dense social networks and resources all their own, they can also provide assistance in attaining goals.

Participants shared their perceptions on how valuable both local government agencies and NGOs have been to their scenic highway program (Table 9). A one to five scale was used: 1 = not at all valuable, 3 = somewhat valuable, and 5

= extremely valuable. In general, participants see NGOs as valuable (an overall mean of 4.15), with about half of respondents rating NGOs as extremely valuable. Overall, the view of local government is between somewhat valuable and valuable (mean of 3.69), placing the value of local government slightly lower than the value of NGOs to the four scenic highway corridor groups. The results specifically referring to value in Table 9 are consistent with the previously discussed results referring to contributions in Figure 8. The latter shows that NGO representatives are perceived as contributing more information, time, and expertise to scenic highway corridor groups than local government representatives.

#### *Community ownership*

Community ownership is important in grassroots efforts like the Florida Scenic Highways Program for participant commitment, community empowerment, and locally driven success. The

Table 10. Sense of control: This is really just a government project<sup>1</sup>

	Frequency	Percentage <sup>2</sup>
1) Strongly Disagree	28	<b>38.4</b>
2) Disagree	21	28.8
3) Neither Agree nor Disagree	18	24.7
4) Agree	4	5.5
5) Strongly Agree	2	2.7

<sup>1</sup>Mean = 2.05 on a 1 to 5 scale; 1=strongly disagree, 5=strongly agree

<sup>2</sup>Bold indicates largest percentage

community should feel that they are able to exert influence in the planning and management process. Participants were asked to respond to the following statement: our scenic highway process is really just a government project (Table 10). A one to five scale was used: 1 = strongly disagree, 3 = neither agree nor disagree, and 5 = strongly agree. With an overall mean of 2.05, over 62 percent of respondents disagree with the statement (Table 10). As an indicator of community ownership, this suggests that participants feel the community is empowered in the decision-making process and are invested in the management outcomes.

*People and information-based resources*  
 Each scenic highway corridor management group depends on the information, time, and expertise provided by various actors to accomplish the tasks of scenic highway implementation. Five non-monetary resource elements are measured in order to understand which resources the scenic highway corridor groups feel they have most and least access to during collaborative decision-making: accurate information to make informed management decisions, people with scientific expertise to aid in management challenges, people with time and talent to carry out administrative tasks, people with time and talent to implement

technical procedures, and people with the authority to carry out physical maintenance or changes to the highway. Opinions of non-monetary resource availability are measured on a one to five scale: 1 = none, 3 = a moderate amount, and 5 = a large amount.

Respondents see all of the non-monetary resources as available in moderate to above average quantities, with overall means that vary between three and four (Table 11). Participants feel accurate information is most available (mean of 3.88) followed by people with scientific expertise (mean of 3.65). People with the time and talent to carry out administrative tasks (mean of 3.55) are slightly more available than those with the time and talent to implement technical procedures (mean of 3.53), however the two are similarly rated. Finally people with the authority to carry out physical changes to the highway (mean of 3.03) are the least available resource for the groups.

***Improving community participation***

Several methods to increase participation were evaluated on a three-point scale: 1 = unlikely, 2 = undecided, and 3 = likely. The top four choices likely to increase participation are a reminder e-mail of the next scheduled meeting or

Table 11. Non-monetary resource availability<sup>1</sup>

	Information <sup>2</sup>	Scientific experts <sup>3</sup>	Skilled persons: Administrative <sup>4</sup>	Skilled persons: Technical <sup>5</sup>	Physical maintenance <sup>6</sup>
Mean	3.88	3.65	3.55	3.53	3.03
n	64	65	65	66	62

<sup>1</sup>Means based on a 1 to 5 scale; 1=none, 5=large amount

<sup>2</sup>Accurate information to make informed management decisions

<sup>3</sup>People with scientific expertise to aid in management challenges

<sup>4</sup>People with time and talent to carry out administrative tasks

<sup>5</sup>People with time and talent to implement technical procedures

<sup>6</sup>People with the authority to carry out physical maintenance or changes to the highway

Table 12. Likelihood of increasing participation in the scenic highway process

Method for increasing participation	n	Mean <sup>1</sup>	Percentage		
			Unlikely	Undecided	Likely
Being sent a reminder e-mail of the next scheduled meeting	113	2.48			
Total			14.2	23.9	61.9
Active			9.5	22.2	68.3
Passive			20.0	26.0	54.0
Being informed of topics to be covered in advance of meetings	112	2.47			
Total			13.4	25.9	60.7
Active			9.5	23.8	66.7
Passive			18.4	28.6	53.1
Being reminded about upcoming meetings one week in advance	113	2.37			
Total			19.5	23.9	56.6
Active			12.7	25.4	61.9
Passive			28.0	22.0	50.0
Option to participate by e-mailing suggestions on highway issues	112	2.28			
Total			25.0	22.3	52.7
Active			22.2	30.2	47.6
Passive			28.6	12.2	59.2
Opportunity to learn about natural resources in your area	114	2.27			
Total			24.6	23.7	51.8
Active			17.5	20.6	61.9
Passive			33.3	27.5	39.2
Option to participate through voting by e-mail on highway issues	113	2.25			
Total			25.7	23.9	50.4
Active			25.4	28.6	46.0
Passive			26.0	18.0	56.0
Opportunity to learn about ecotourism and heritage tourism	114	2.04			
Total			31.6	33.3	35.1
Active			23.8	36.5	39.7
Passive			41.2	29.4	29.4
Option to participate through e-mail questionnaires on highway topics	112	2.03			
Total			36.6	24.1	39.3
Active			36.5	28.6	34.9
Passive			36.7	18.4	44.9
Being reminded about upcoming meetings one day in advance	109	1.83			
Total			46.8	22.9	30.3
Active			40.3	25.8	33.9
Passive			55.3	19.1	25.5
Option to participate through postal questionnaires on highway topics	111	1.64			
Total			58.6	18.9	22.5
Active			62.3	21.3	16.4
Passive			54.0	16.0	30.0
Availability of childcare	111	1.08			
Total			94.6	2.7	2.7
Active			95.2	3.2	1.6
Passive			93.9	2.0	4.1

<sup>1</sup>Means based on a 1 to 3 scale; 1=unlikely, 3=likely

event (mean of 2.48), being informed of meeting topics in advance (mean of 2.47), being reminded of upcoming meetings or events one week in advance (mean of 2.37), and participation through e-mailing suggestions (mean of 2.28) (Table 12). The availability of childcare is the least likely to increase participation (mean of 1.08) (Table 12).

Respondents that are currently passively involved in the scenic highway process might have different constraints than active members. The possibility that activity level could affect which methods would improve participation is explored for each participation method choice.

Three strategies do show a trend for positively impacting the participation of passive members more powerfully than active members: participation through e-mailing suggestions, participation through voting on highway issues by e-mail, and participation through e-mail surveys (Table 12). Over 59 percent of all passive respondents think that e-mailing suggestions is likely to increase

their participation compared to 47.6 percent of active participants. This trend is closely followed in the strategy of voting on issues by e-mail, which is likely to increase participation for 56 percent of all passive respondents and 46 percent of active participants. Finally, e-mail surveys on highway topics are thought to positively impact participation in 44.9 percent of passive respondents and only 34.9 percent for active participants.

One strategy significantly impacts active member participation (Table 12). The opportunity to learn about natural resources in the area increases the likelihood of participation for nearly 62 percent of all active participants. However, passive respondents are not strongly affected, with 39.2 percent rating the strategy as likely to increase their participation and 33.3 percent rating the strategy as unlikely to have an affect.

The remainder of the participation strategies affects both active and passive respondents similarly.

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## Conclusions

Four to five years after the designation of four Florida scenic highways, community-based decision-making appears to be

- 1) Effectively preserving the character of unique areas,
- 2) Contributing to desirable and appropriate promotion,
- 3) Enhancing sustainable tourism opportunities, and
- 4) Helping to secure funding for preserving Florida's unique environments.

Participants in the four study areas rate their own progress as moderate to above average. The scenic highways program is seen as beneficial to both travelers and residents; however, the most dramatic benefits seem to be attained by the community itself. Participants seem most interested in preserving the character of their area against inappropriate development as well as heightening awareness and action on local environmental issues.

### *Actors*

Various actors contribute to the functioning of scenic highway groups and to the non-monetary resources on which management depends. Each group of actors brings different frames of reference and different levels and types of expertise. Collaborative decision-making requires the participation of groups with formal training and groups with a less formal, but more intimate understanding of the local context.

Florida Department of Transportation (FDOT) representatives are seen as the highest contributors to the information and personnel resources used in the scenic highway process, with a substantially higher mean than the other groups. NGO actors are also perceived as high contributors. Local government representatives and community members are seen similarly in their contribution towards non-monetary resources.

This study finds that respondents in the four scenic highway corridor management groups feel they have moderate access overall to some information and personnel resources that might be necessary for decision-making and management. Participants in the four study areas perceive a higher amount of availability concerning accurate information for decision-making and people with scientific expertise that aid in management decisions. According to the means, respondents feel more challenged in accessing people with the authority to carry out physical changes to the highway, people with the time and talent to carry out technical procedures (e.g. grant writing, etc.), and people with the time and talent to carry out administrative tasks.

### *Respondents*

Working individuals have a substantial presence among the scenic highway participants. Full-time workers are the most numerous employment category among respondents. In addition, the most active participants are not predominantly retirees. The most active participants are made up of equal percentages of full-time workers and retirees.

Over 70 percent of participants are over 50 years of age. Some representation does exist for the age groups 30 to 39 and 40 to 49, but representation is lacking for community members less than 30 years of age. The majority of involvement comes from households making above 65 thousand dollars annually and income levels below 25 thousand dollars per year are poorly represented.

In many community-based ventures, the youngest and poorest residents tend to have low representation. Although certain income and age brackets may be unable to participate for reasons beyond the control of the scenic highway group, care can be taken to make participation as easy as possible for these groups through alternative participation methods. This might be especially applicable when decision-making directly concerns an area highly populated by young lower income families, such as downtown restoration efforts or changes to other zones inhabited by individuals with such demographics.

### *Improving participation*

This study evaluates several methods to expand community participation. The data indicate strategies that are likely to

increase participation for all participants, those that particularly influence the participation of active participants, and finally those that particularly influence the participation of passive participants.

The strategies that increase the likelihood of participation for *all* respondents are to

- Keep participants informed of meetings and meeting agendas, as well as to
- Encourage communication alternatives that do not necessarily involve physical attendance, such as sending suggestions through e-mail.

The data isolates only one strategy as likely to increase participation for mainly *active* respondents:

- The opportunity to learn about the natural resources of the area.

This strategy falls under the educational role of the scenic highway, but with a special twist. Rather than educating the general public, this strategy turns the learning process inward to enrich the knowledge and experience of people who partake in the decision-making process; ultimately leading to better management and more empowered communities. Inviting guest speakers to scenic highway meetings can be one way to create a more fulfilling participation

process. Short presentations from local state park or reserve naturalists and information sharing visits about local resources and current resource issues by the local Audubon Society, Native Plant Society, Florida Trails Association, and other organizations are just a few ways that this strategy can be implemented.

The strategies that scenic highway groups can use to increase participation for mainly *passive* or not active members revolve around alternative communication options:

- The opportunity to e-mail suggestions,
- The opportunity to vote by e-mail, and
- The opportunity to participate in an e-mail survey.

This last set of methods are most important for widening representation since they mainly increase participation in individuals who are not normally involved in the decision-making process. If a particular management decision has the potential to effect very low-income groups, technological limitations may need to be considered. In this situation, paper response options, such as postal surveys, may prove more accessible to the target group than e-mail based communication.

## Implications

Specific implications can be drawn for improving the scenic highway process in the study areas.

- ☞ Groups with formal expertise in highway maintenance, technical procedures, and administrative skills could be encouraged to contribute at higher levels for improved outcomes in these scenic highway groups.
- ☞ In cases where decision-making could affect areas that contain many young and low-income individuals, care can be taken to allow for participation methods amenable to not active members, especially those including non-verbal modes of communication (e.g. postal surveys, e-mailed or handwritten suggestions, etc.).
- ☞ Opportunities to learn about natural resources in the corridor area during

scenic highway gatherings are likely to encourage continued interest from active scenic highway participants.

- ☞ Participants in the four scenic highway groups may benefit from assistance in investigating how to 1) increase the community's knowledge of environmental issues and 2) encourage government action on environmental issues since these benefits were most important to participants, but were not perceived as most often occurring.

The Florida Scenic Highways Program is an innovative venture that seems to encourage a sense of community ownership over an important decision-making process. This long-term collaborative endeavor is a working example of how communities can be empowered in planning and management to make culturally appropriate tourism and sustainable resource-use a reality.

## Appendix 1

### Old Florida Heritage Highway Questionnaire

## Appendix 2

### Indian River Lagoon Scenic Highway Questionnaire

## Appendix 3

### Florida Keys Scenic Highway Questionnaire

## Appendix 4

### A1A Ocean Shore Scenic Highway Questionnaire